

STAVEBNICE ROBOT

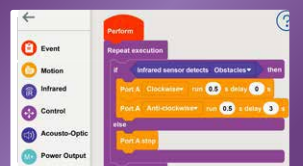

402
MODELŮ



APLIKACE PRO OVLÁDÁNÍ ROBOTA

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Programming Block Master nebo navštivte:
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PRO
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ROBOTA



VIDEO TUTORIÁLY

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www.baolecattoys.com

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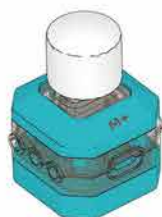
SEZNAM KOMPONENTŮ



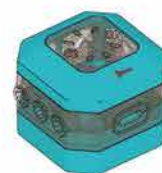
**Motorový modul
x2**



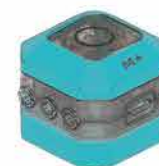
**Hlavní řídicí modul
x1**



**Modul stolní lampy
x1**



**Modul zvukového
klaksonu
x1**



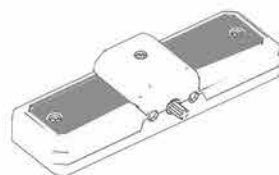
**Modul barevného
světla
x1**



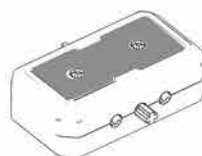
**Modul bublinového
stroje
x1**



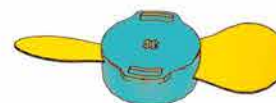
**Infračervený modul
x1**



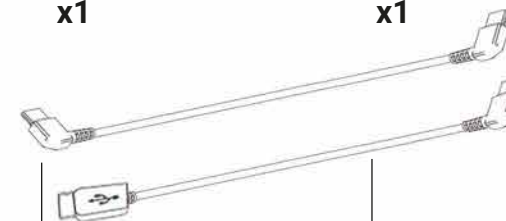
**Tříotvorová
pokladnička
x1**



**Dvouotvorová
pokladnička
x1**

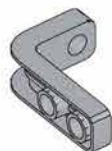


**Vrtule
x1**

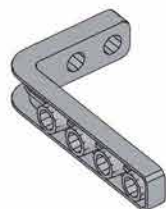


Drát x1

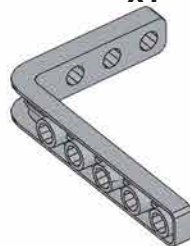
Nabíjecí kabel x1



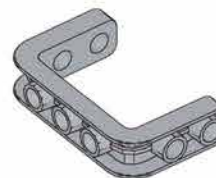
**L tvar – 3 otvory
x4**



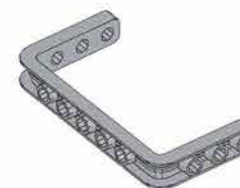
**L tvar – 6 otvorů
x4**



**L tvar – 8 otvorů
x4**



**U tvar – 7 otvorů
x4**



**U tvar – 11 otvorů
x4**



**Tvar se třemi
řadami otvorů
x4**

SEZNAM KOMPONENTŮ



5
1x5
Spojovací tyč
x8



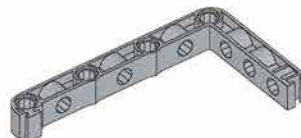
8
1x8
Spojovací tyč
x6



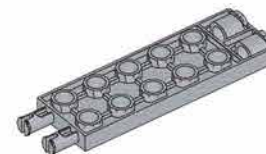
9
1x9
Spojovací tyč
x6



10
1x10
Spojovací tyč
x6



L tvar
– 10 otvorů
x4



1x10
Dvouvrstvá
spojovací tyč
x4



Kruhový
6dírový díl
x1



1
Křížová osa
x2



2
Křížová osa
x2



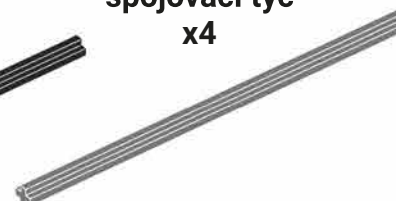
3
Křížová osa
x2



4
Křížová osa
x2



5
Křížová osa
x2



6
Křížová osa
x3



Optical fiber rod x1



Pevný křížový kolík
x2



Dlouhý
pevný kolík
x12



Křížový
posuvný kolík
x2



Poloviční
hřídelové
pouzdro
x2



Ozubené
kolo s 16 zuby
x2



Kruhové
ozubené kolo
x3



Ozubené kolo
s 24 zuby
x2



Korunové
ozubené kolo
x2



Spojovací hřídelky
(čepy)
x50



Ozubené kolo
s 12 zuby
x2



Kladka
x4



Plné hřídelové
pouzdro
x14



Posuvný kolík
x6



Dlouhý
posuvný kolík
x2



Oční doplňky
x2



Pneumatika
x4

BEZPEČNOSTNÍ POKYNY PRO POUŽÍVÁNÍ BATERIE

Bezpečnost při používání baterie

Výrobek používá nevyjímatelnou 3,7V lithium-iontovou baterii.

Nabíjecí baterie musí být nabíjeny pod dohledem dospělé osoby.

Při nabíjení baterie musí být vypnutý hlavní vypínač výrobku.

Napájecí svorky nesmí být zkratovány.

Nepřipojujte více zdrojů napájení, než je doporučeno.

Při nabíjení používejte USB kabel a adaptér odpovídající národním normám.

Pravidelně kontrolujte USB kabel a napájecí zdroj.

Pokud zjistíte poškození kabelu nebo jiných částí, okamžitě přestaňte výrobek používat, dokud nebude plně opraven.



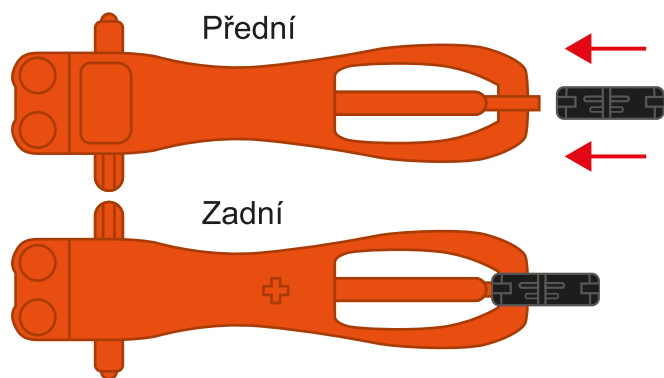
VAROVÁNÍ

Veškeré obalové materiály (např. pásky, plastové fólie, sáčky apod.) nejsou součástí výrobku a nejsou vhodné ke hře dětí.

Z bezpečnostních důvodů je nutné tyto obaly odstranit a zlikvidovat mimo dosah dětí.

DEMONTÁŽ A SESTAVENÍ

Nářadí pro demontáž a montáž



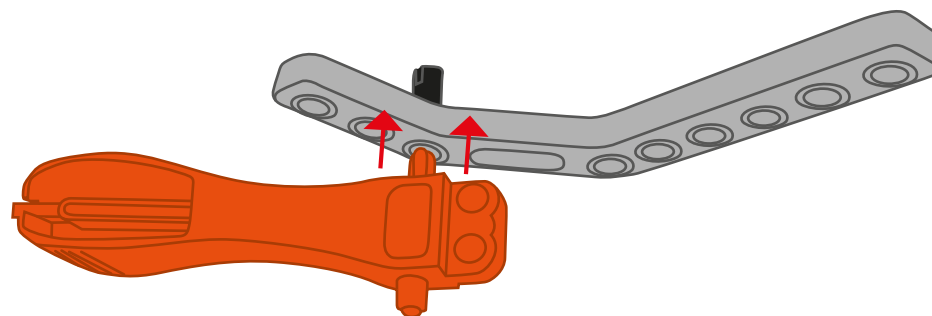
ODSTRANĚNÍ BĚŽNÝCH ZÁVAD

Pokud hlavní napájecí jednotka přestane reagovat, postupujte následovně:

1. Odpojte vodiče hlavní napájecí jednotky.
2. Nechte jednotku několik minut odpojenou a poté ji znovu zapněte.

ÚDRŽBA A PÉČE

1. Vnější část jednotky jemně otřete měkkým suchým hadříkem, abyste ji udrželi v čistotě.
2. Vyhněte se přímému slunečnímu záření a umístěte mimo dosah zdrojů tepla.
3. Pokud přístroj nepoužíváte delší dobu, vypněte hlavní vypínač.
4. Odpojte všechny vodiče připojené k hlavní jednotce.
5. Nevystavujte jednotku nárazům ani se ji nepokoušejte rozebírat.
6. Neponořujte hlavní jednotku do vody a chraňte ji před vlhkostí.



POPIS ELEKTRONICKÝCH MODULŮ

Motor Module

Motorový modul se připojuje k hlavnímu řídicímu modulu.

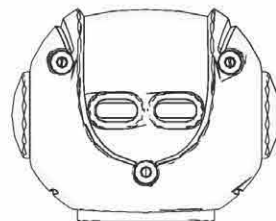
Porty A/B lze ovládat prostřednictvím aplikace hlavního ovládání (Main Control APP). V aplikaci lze naprogramovat otáčení motoru vpřed i vzad.

- 1 Připojte odpovídající vodiče portu

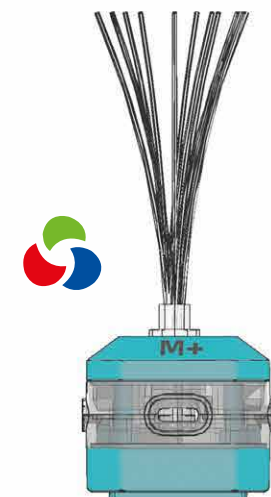


Infračervený modul

Infračervený modul se připojuje k portům Infrared 1/2 hlavního řídicího modulu.



Modul motoru



Modul

7barevného světla

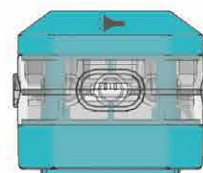
Tento modul se připojuje k hlavnímu řídicímu modulu přes port M+. Prostřednictvím aplikace Main Control APP lze programovat různé barevné efekty světla.

Nabíjecí zásuvka

Zásuvka motoru A

Zásuvka infračerveného senzoru 1

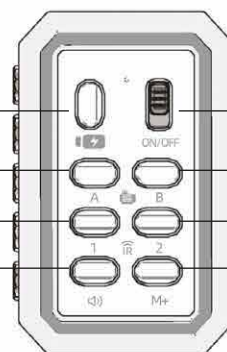
Zásuvka reproduktoru



Modul

reproduktoru

Modul reproduktoru se připojuje k hlavnímu řídicímu modulu. Pomocí aplikace Main Control APP lze naprogramovat různé zvukové efekty reproduktoru.



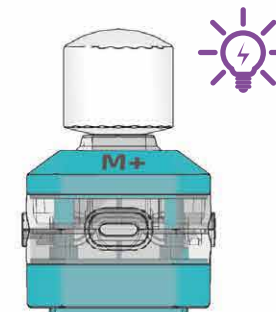
Hlavní ovládací modul

Tlačítko zapnutí/vypnutí

Zásuvka motoru B

Zásuvka infračerveného senzoru 2

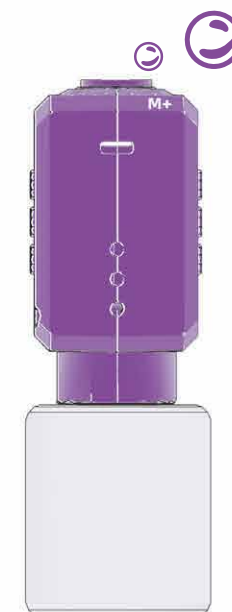
Zásuvka M+



Modul

stolní lampy

Tento modul se připojuje k portu M+ hlavního řídicího modulu. Jas stolní lampy lze programově ovládat prostřednictvím aplikace Main Control APP.



Modul

bublinového stroje

Modul bublinového stroje se připojuje k hlavnímu řídicímu modulu přes port M+. Pomocí aplikace Main Control APP lze naprogramovat spouštění a zastavení tvorby bublin.

ÚVOD DO POUŽÍVÁNÍ APLIKACE

1.

Stáhněte si a nainstalujte si aplikaci do svého mobilního telefonu nebo iPadu

Stáhněte a nainstalujte aplikaci do svého mobilního telefonu nebo tabletu (iPad). Naskenujte QR kód uvedený v návodu a stáhněte aplikaci.

Nebo ji vyhledejte v Apple App Store či Google Play (Android App Store) pod názvem Programming Block Master.



2.

Zapnutí Bluetooth zařízení

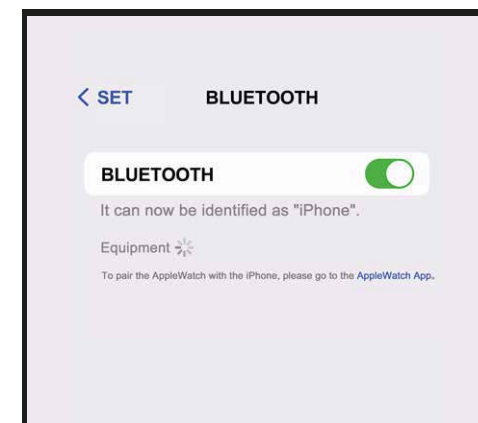
Ujistěte se, že máte zapnuté Bluetooth na svém mobilním zařízení.

U systémů Android je zároveň nutné mít zapnutou i funkci GPS (určení polohy) pro úspěšné připojení.

Po připojení se aplikace automaticky synchronizuje s hlavním modulem a zobrazí dostupné funkce a programovací možnosti.

Ukážeme si rozhraní aplikace

Po spuštění aplikace se zobrazí hlavní rozhraní, ve kterém můžete volit různé režimy ovládání a programování.



3.

Připojení k hlavnímu řídicímu modulu

Po instalaci otevřete aplikaci a připojte ji k hlavnímu řídicímu modulu robota.

Blikající modré světlo na modulu znamená, že zařízení čeká na připojení.

Pokud modré světlo svítí trvale, připojení bylo úspěšně navázáno.



4. Úvod do rozhraní aplikace

1. Klepnutím vstoupíte do rozhraní a vyberete požadovanou funkci.



2. Klikněte na Režim ovládání/Režim programování



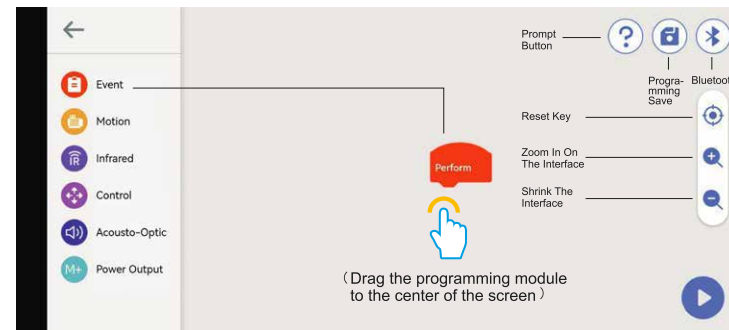
3. Nastavení pro ovládání



Režim dálkového ovládání



4. Klikněte "Add Programming"



POKYNY K POUŽITÍ STAVEBNÍHO MODULU

Perform

1. Spouštěcí modul

Tento modul označuje začátek každého programu. Jeho přidáním se inicializuje celá sekvence příkazů, které budou následovat.

Await 1 Sec

2. Čekací modul

Po vložení tohoto modulu bude program čekat nastavený čas (např. 1 sekundu) po stisknutí tlačítka Start a teprve poté pokračovat v dalších instrukcích.

Repeat execution

3. Opakovaný modul

Tento modul umožňuje opakované provedení více instrukcí v rámci programového rámce. Program tak může opakovat blok kroků zadaný uživatelem.

Repeat execution 1 time

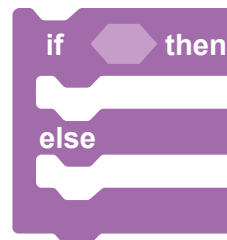
4. Modul pro opakování (počet opakování)

Podobně jako předchozí, ale zde lze určit konkrétní počet opakování (např. 1×, 5× atd.). Program vykoná zadané instrukce tolikrát, kolikrát určíte.

if then

5. Výkonný modul

Po přidání tohoto modulu lze vložit například infračervený senzor (Infrared module). Program se pak bude řídit senzorickými podmínkami – např. při detekci překážky vykoná určitou akci.



Infrared sensor detected

Obstaclesd

6. Podmíněný modul

Tento modul představuje rozhodovací větev (if / else / then). Po přidání infračerveného senzoru program reaguje na zjištěné podněty: Pokud senzor zaznamená překážku, provede určitou sekvenci (např. motor A se otáčí ve směru hodinových ručiček po dobu 5 s, poté zpoždění a změna směru). Pokud překážku nezaznamená, provede jinou sekvenci. Tento modul tedy umožňuje rozhodování na základě senzorů.

7. Infračervený modul

Slouží jako spouštěcí podmínka – například: „Pokud je detekován objekt, udělej A; pokud není detekován, udělej B.“ Pomocí tohoto modulu lze robotovi přidat reakce na okolní prostředí.

Port A Clockwise run 5 s delay 10 s

8. Motorový konektor A

Konektor A motoru vykonává příkazy podle nastavených parametrů programu. Lze volit: směr otáčení (vpřed / vzad), zpoždění, délku běhu (v sekundách). Všechny tyto hodnoty lze libovolně upravit podle potřeby.

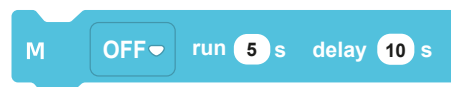
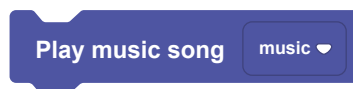
Port A Anti-clockwise run 5 s delay 10 s

Port B Clockwise run 5 s delay 10 s

9. Motorový konektor B

Konektor B motoru pracuje stejně jako konektor A – provádí instrukce podle programu a umožňuje nastavit směr otáčení, zpoždění i dobu běhu dle vlastního nastavení.

POKYNY K POUŽITÍ STAVEBNÍHO MODULU



10. Synchronizace motorů A a B

Synchronizační sekvence na terminálech A a B

Konektory A a B mohou být synchronizovány tak, aby motorové jednotky pracovaly současně.

Každý motor lze nastavit pro:

- otáčení vpřed (Clockwise),
- otáčení vzad (Anti-clockwise),
- zpoždění (Delay),
- délku běhu (Run time, v sekundách).

Tyto hodnoty lze libovolně měnit podle potřeby projektu.

11. Zvukový modul

Po přidání tohoto modulu lze přehrávat zvuky.

K dispozici je 5 typů zvuků, které si můžete zvolit dle potřeby v aplikaci.

12. Modul M+

(stolní lampa / barevné světlo / bublinový stroj)

Tento modul slouží k ovládání připojených doplňků – např. lampy, světla nebo bublinového stroje.

Po přidání příslušného modulu lze pomocí aplikace řídit jeho aktivaci i vypnutí.

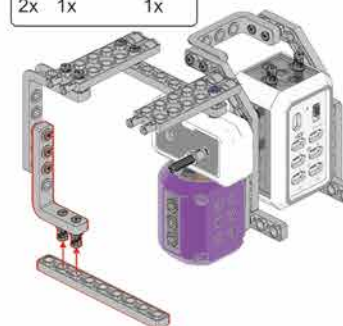
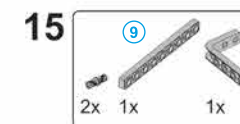
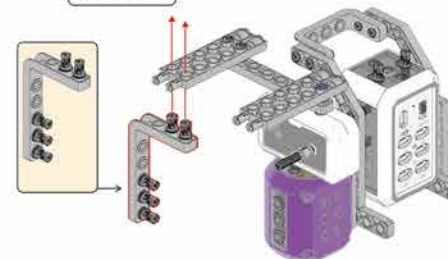
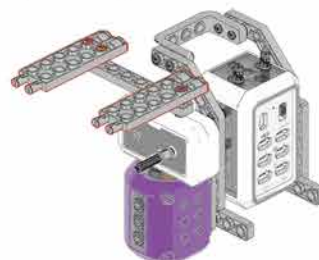
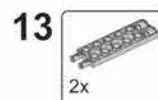
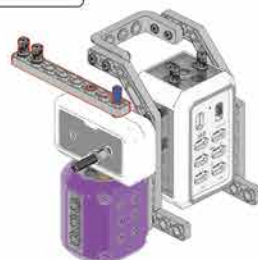
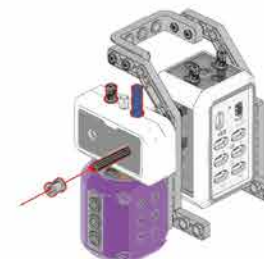
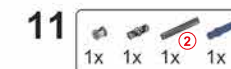
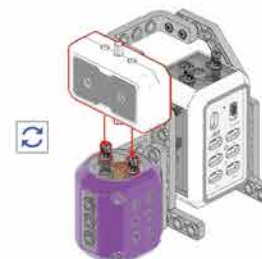
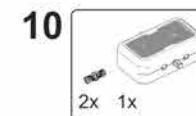
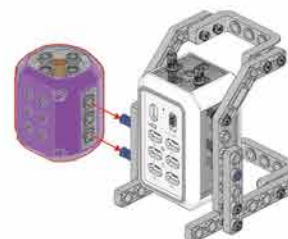
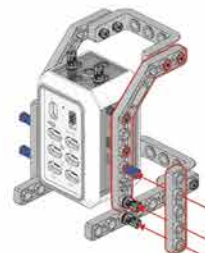
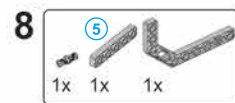
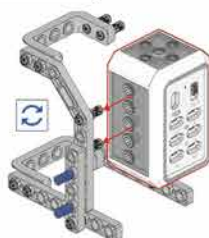
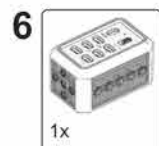
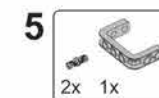
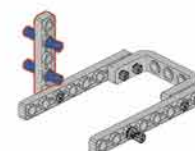
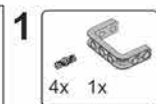
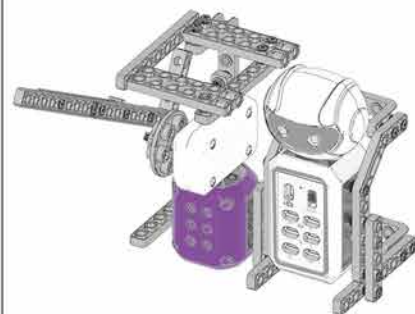
Poznámka: Uvedená nastavení jsou pouze orientační.

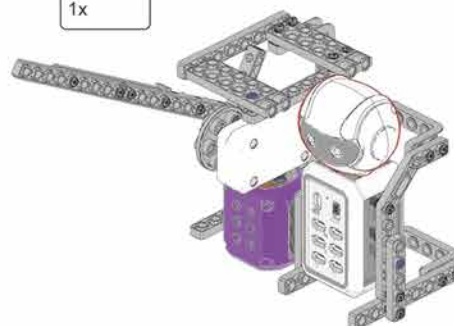
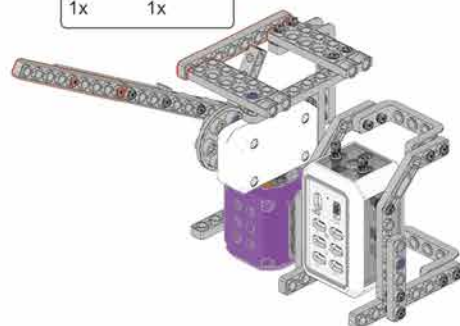
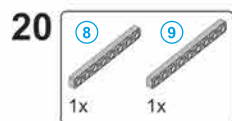
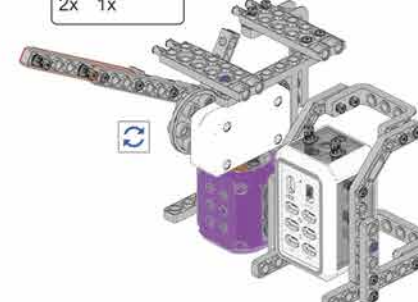
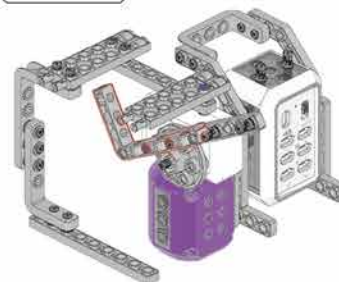
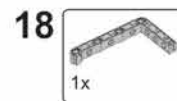
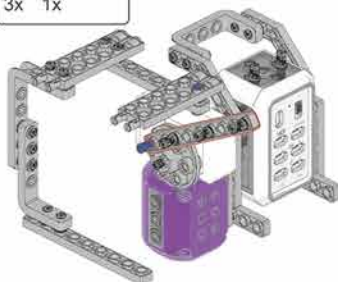
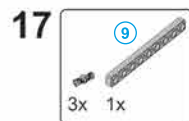
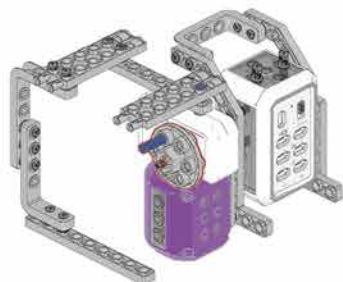
Upravujte parametry podle skutečné úrovně nabití baterie a potřeb vašeho projektu.

Doporučuje se přizpůsobit rychlost motoru tak, aby byla přiměřená výkonu a stabilnímu chodu zařízení.

KURZ MODELOVÁNÍ A PROGRAMOVÁNÍ

1. INFRAČERVENÁ ZÁVORA





22

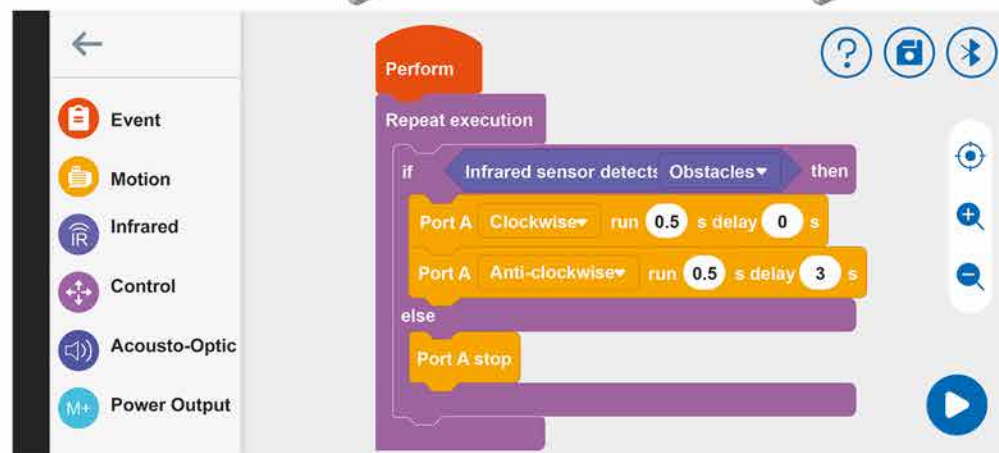
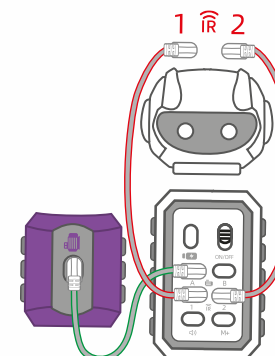
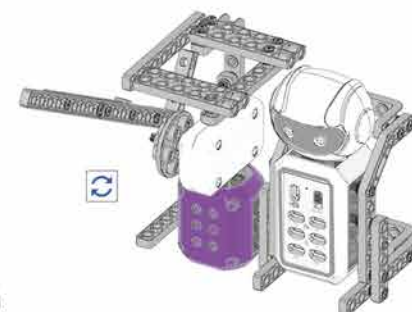


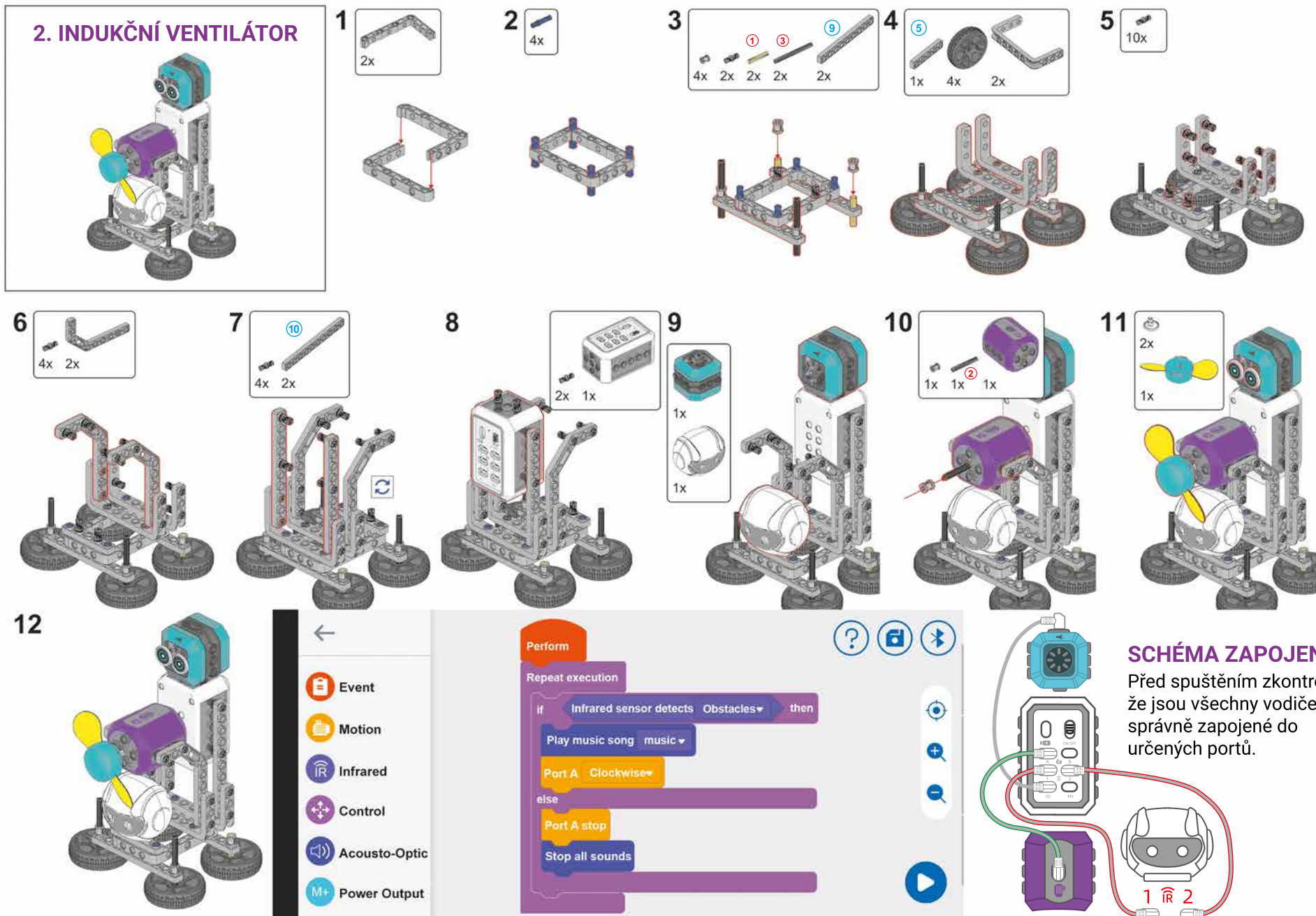
SCHÉMA ZAPOJENÍ

Zkontrolujte, zda jsou všechny vodiče správně zasunuty do určených portů, aby nedošlo k nesprávné funkci modulu.

FUNKCE:

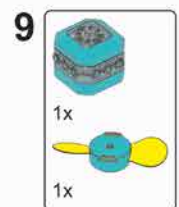
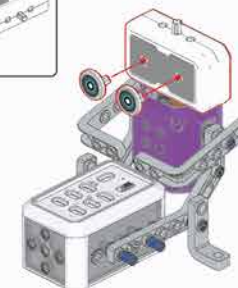
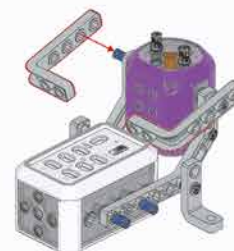
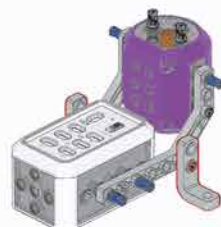
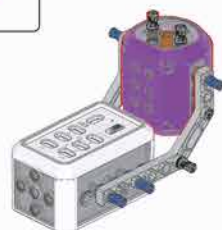
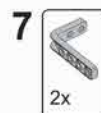
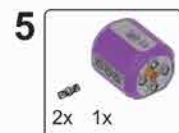
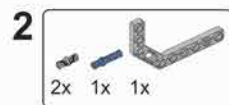
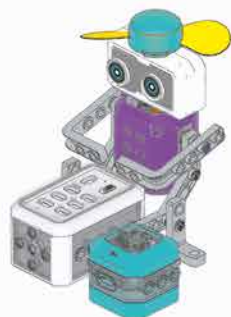
Když infračervený senzor detekuje objekt, který prochází před paprskem, závora se zvedne a po určité době se automaticky spustí dolů.

2. INDUKČNÍ VENTILÁTOR

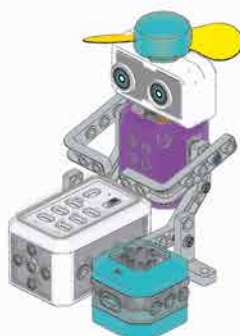
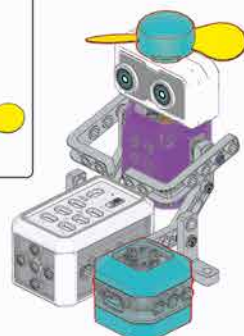


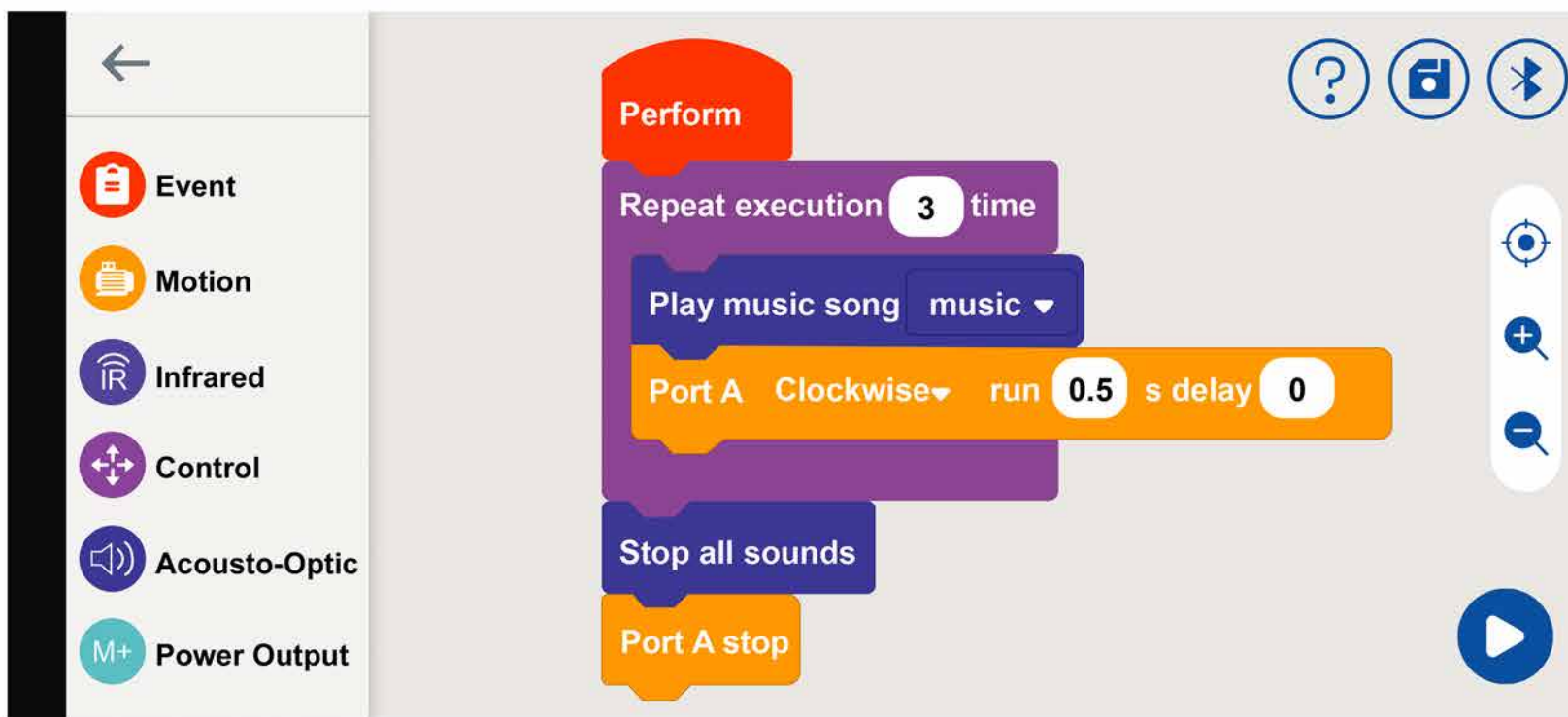
FUNKCE: Pokud infračervený senzor zaznamená pohyb před sebou, zapne se hudba a ventilátor začne foukat.

3. HUDEBNÍ ROBOT



10





FUNKCE: Robot přehrává hudbu při aktivaci senzoru a může být dále programován pro pohyb nebo světelné efekty v rytmu hudby.

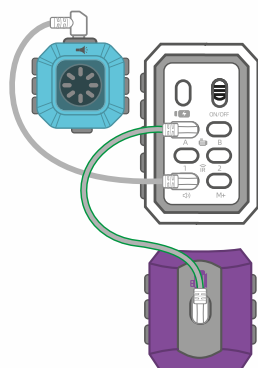
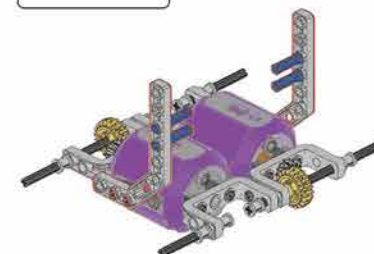
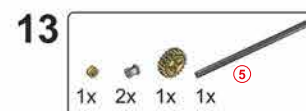
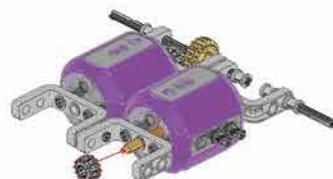
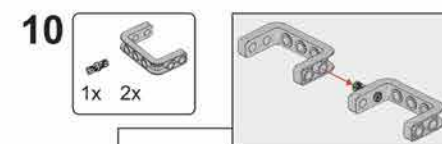
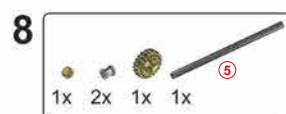
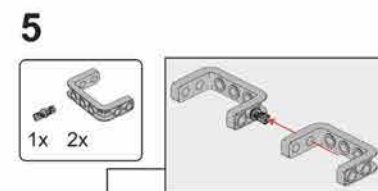
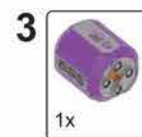
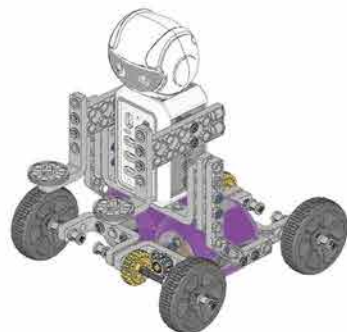


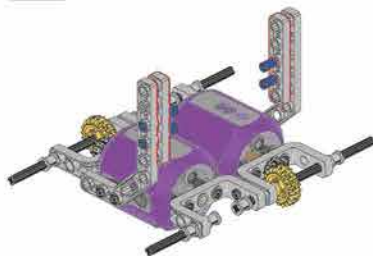
SCHÉMA ZAPOJENÍ

Před spuštěním zkontrolujte, že jsou všechny vodiče správně zapojené do určených portů.

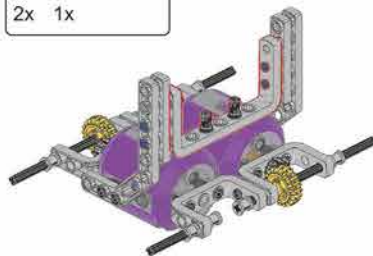
4. VESMÍRNÝ ROBOT



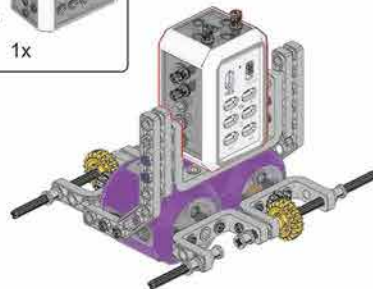
15  2x



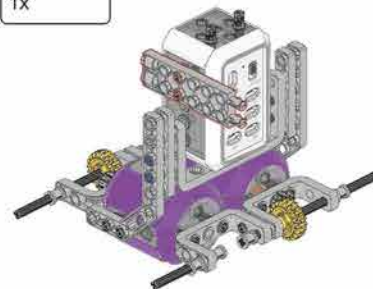
16  2x 1x



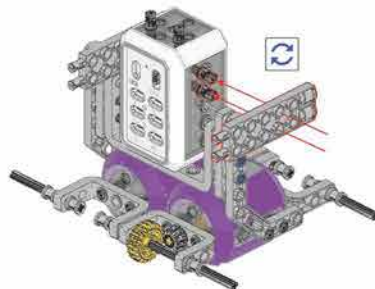
17  4x 1x



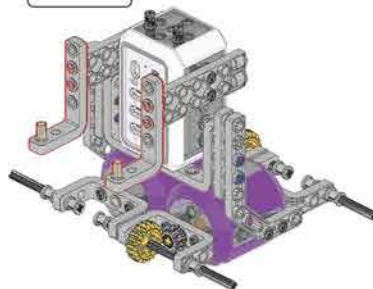
18  1x



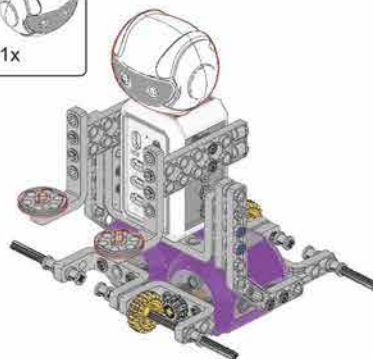
19  2x 1x



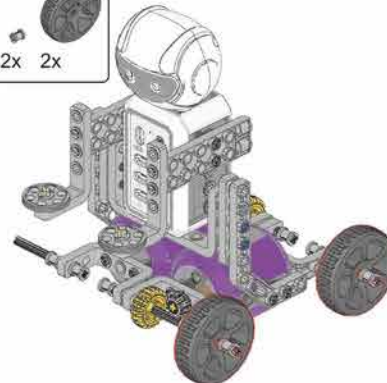
20  2x 2x



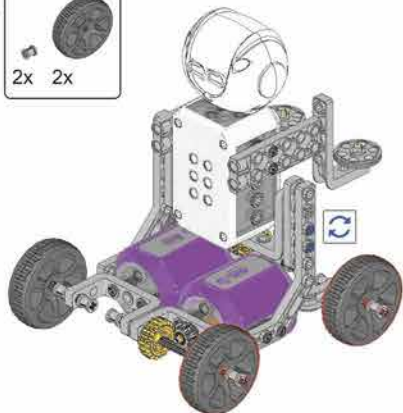
21  2x 1x



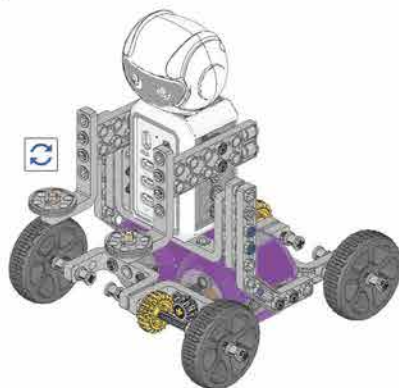
22  2x 2x

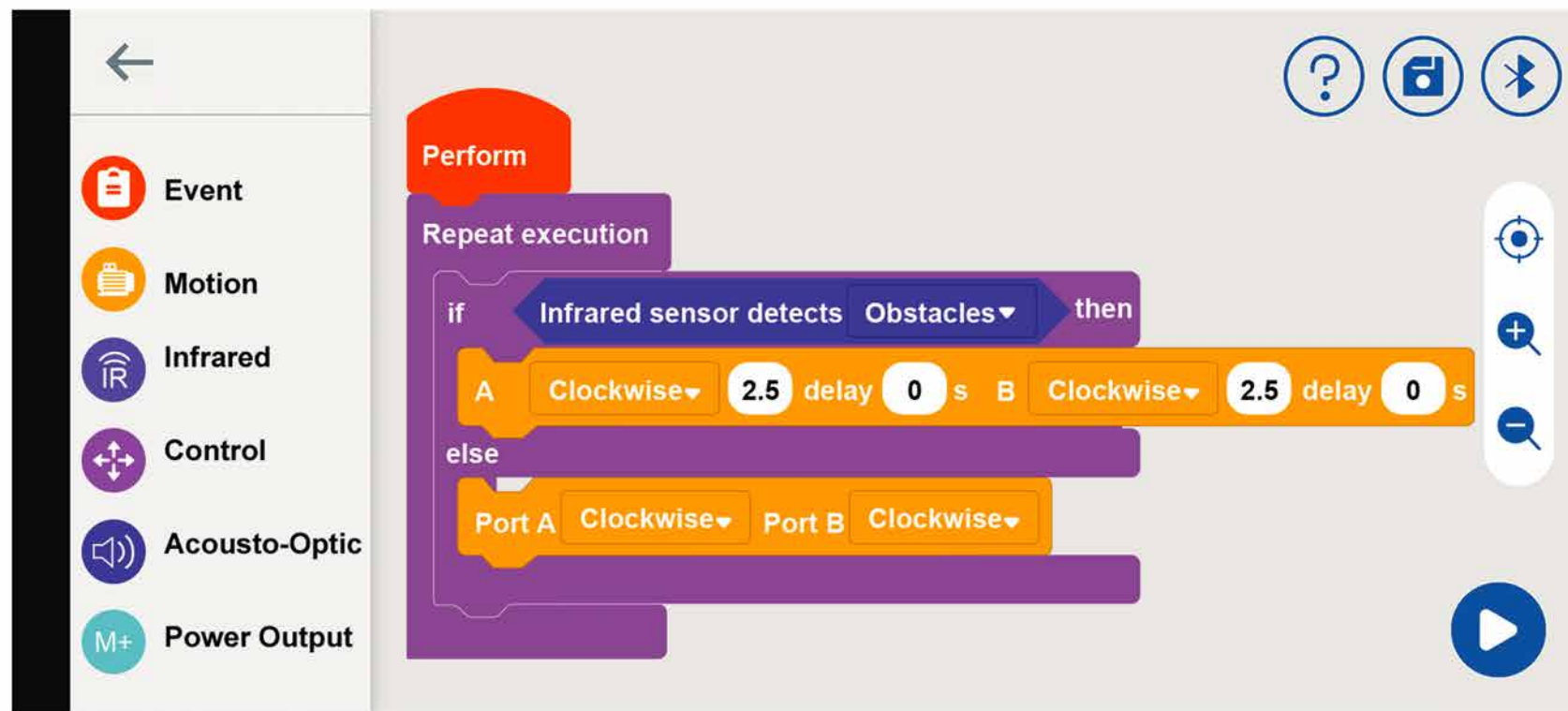


23  2x 2x



24





FUNKCE: Po spuštění programu a jeho běhu začne robot přehrávat hudbu a zároveň se roztočí oči robota a ventilátor na jeho hlavě.

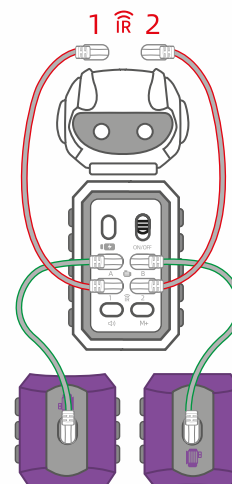
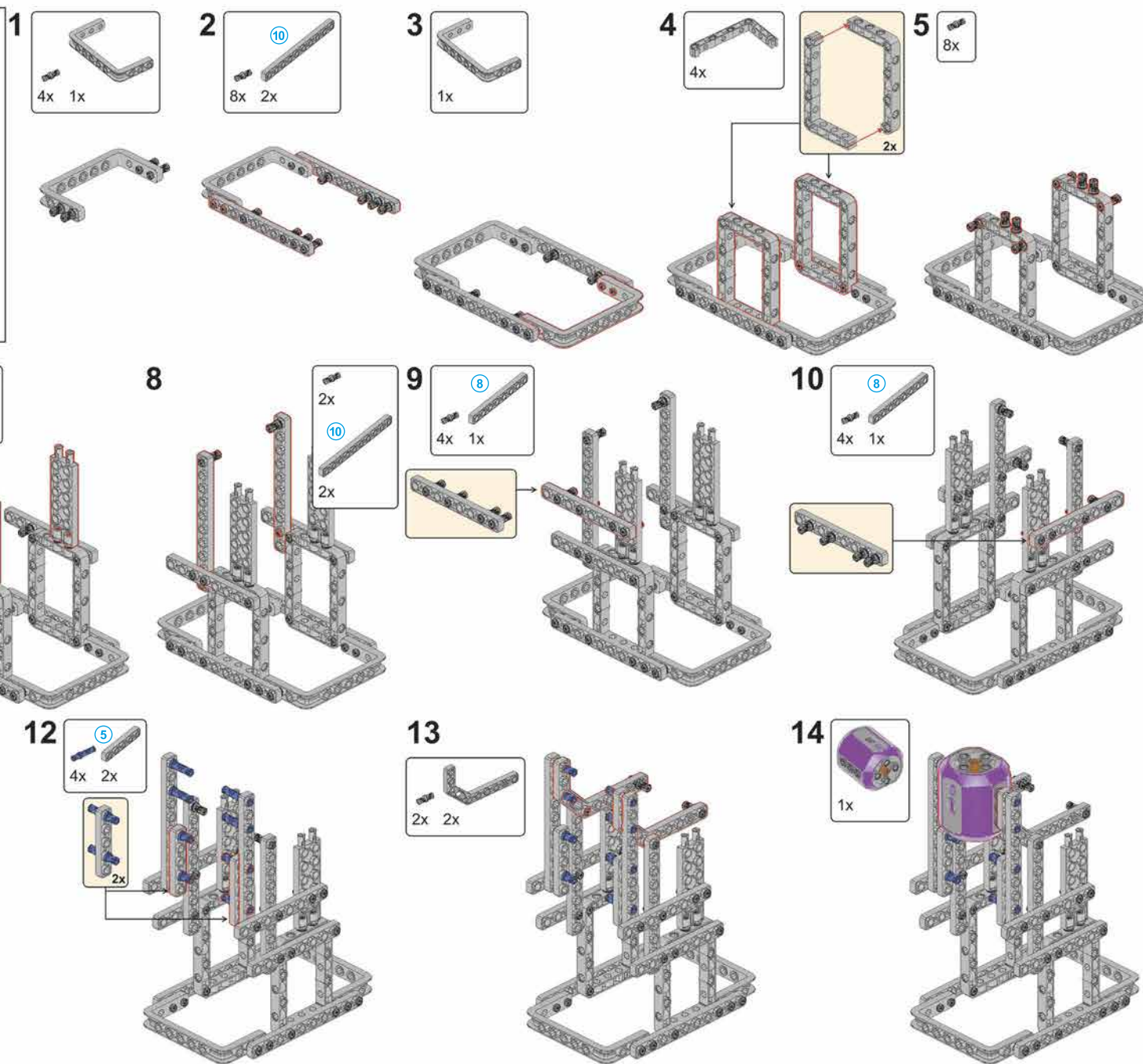


SCHÉMA ZAPOJENÍ

Před spuštěním zkontrolujte, zda jsou všechny kabely zapojeny do správných portů, aby nedošlo k poruše funkce.



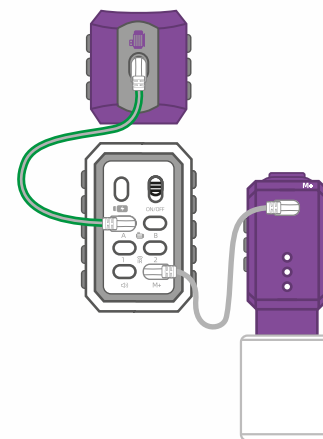
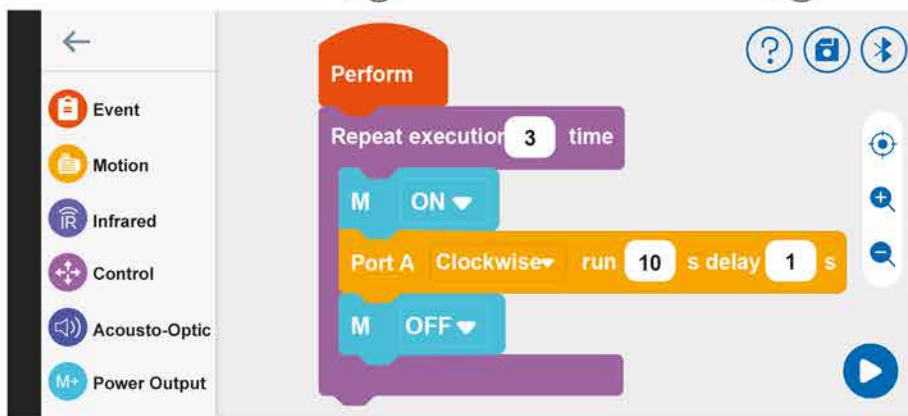
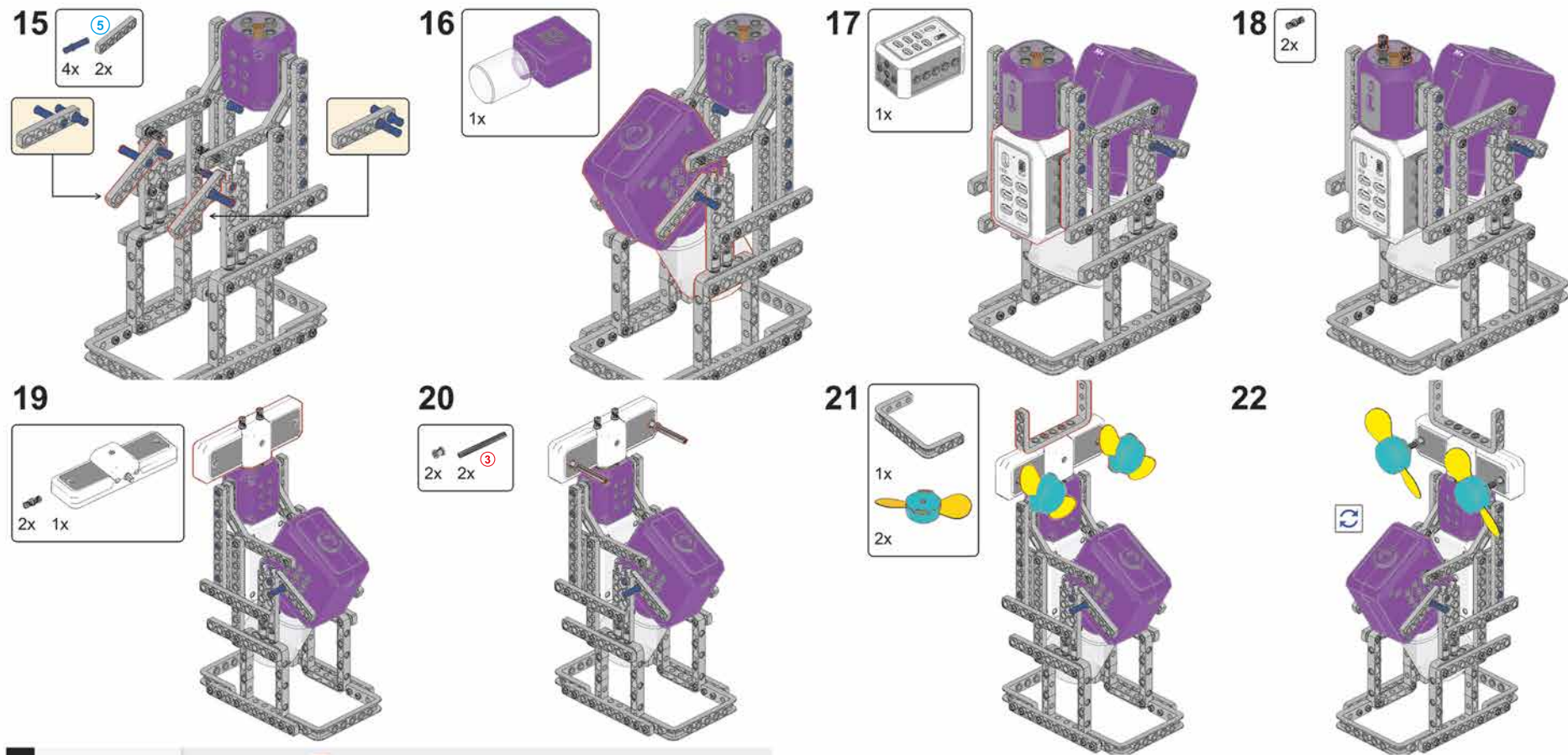
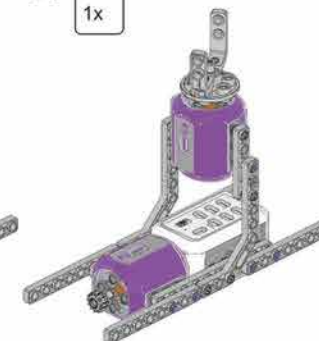
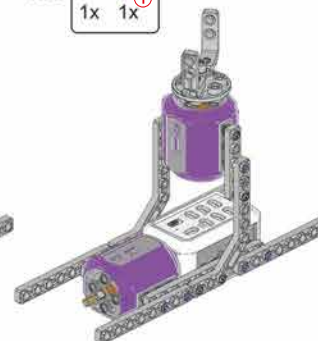
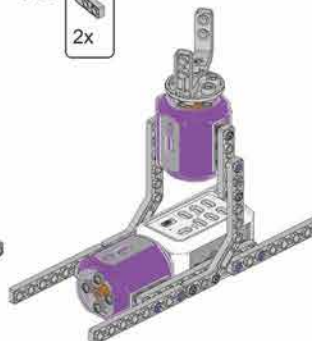
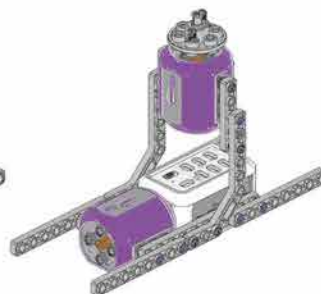
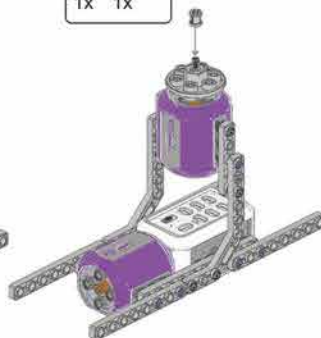
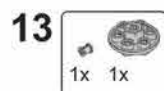
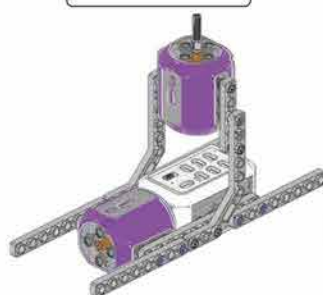
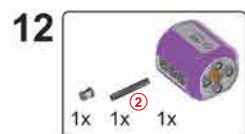
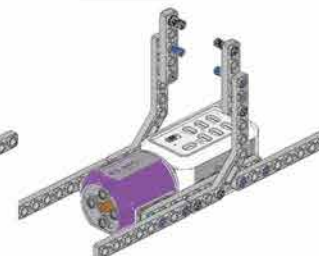
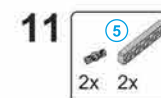
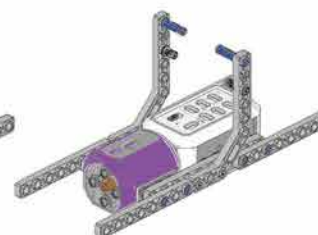
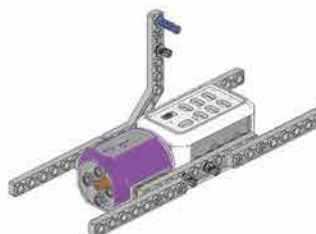
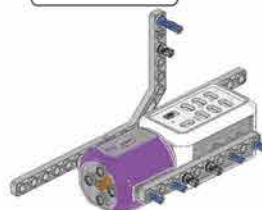
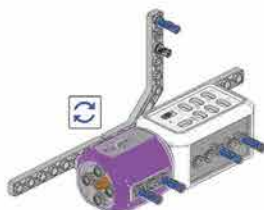
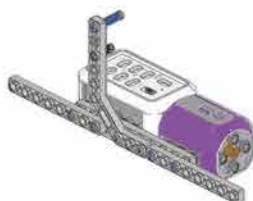
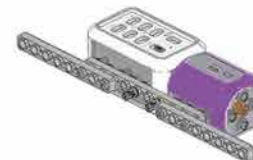
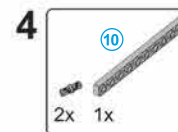
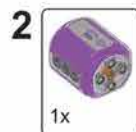
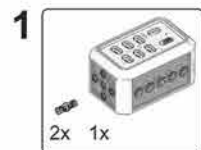
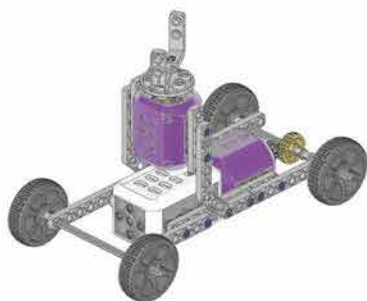


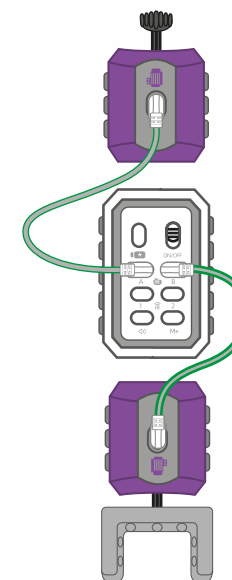
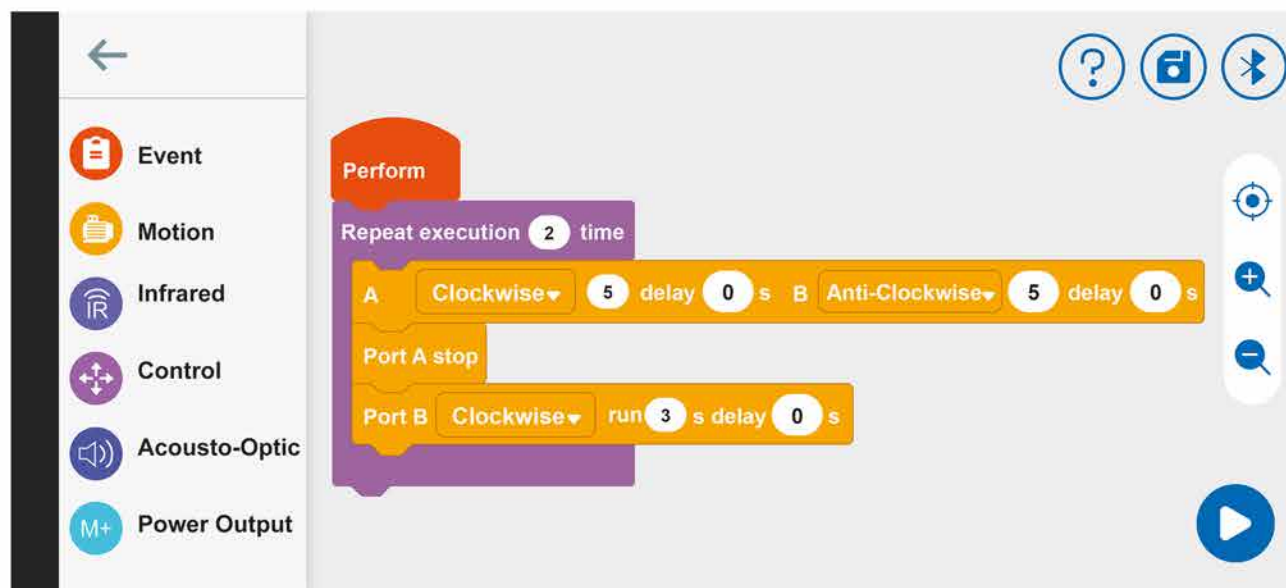
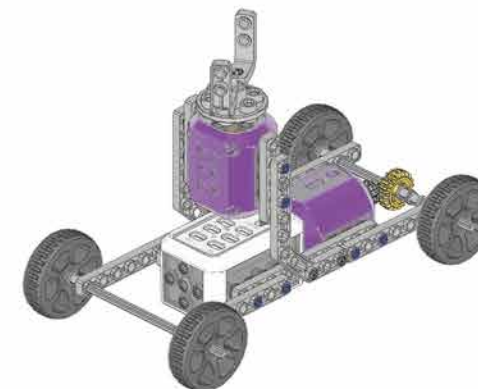
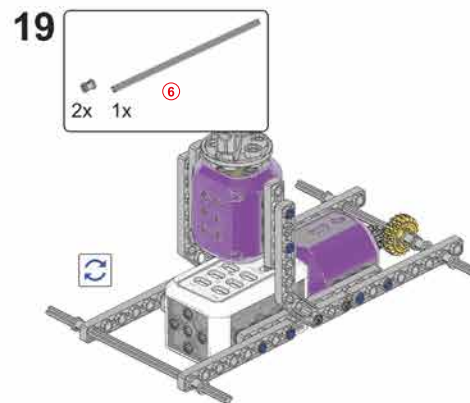
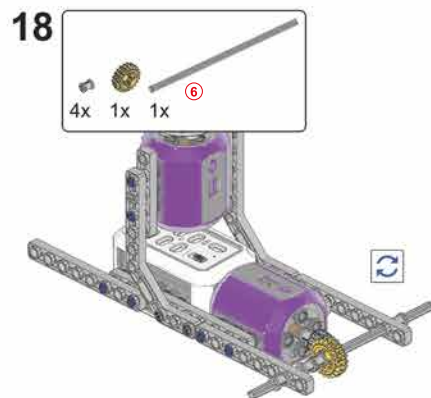
SCHÉMA ZAPOJENÍ

Zkontrolujte, zda jsou všechny vodiče správně zasunuty do příslušných portů, aby nedošlo k poruše funkce.

FUNKCE: Po spuštění programu začne ventilátor rotovat a bublinový stroj vypouští bubliny.

6. RADAROVÉ VOZIDLO





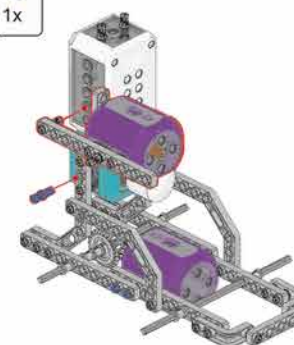
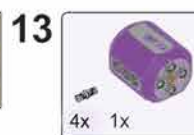
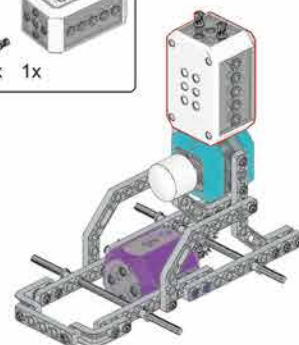
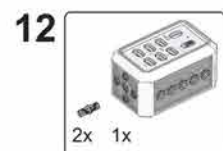
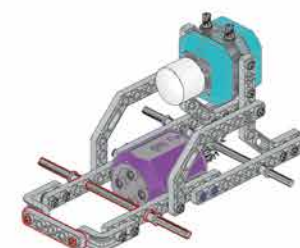
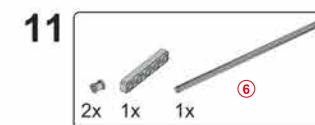
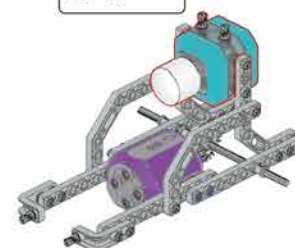
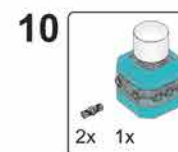
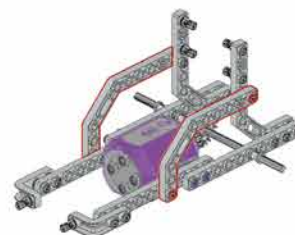
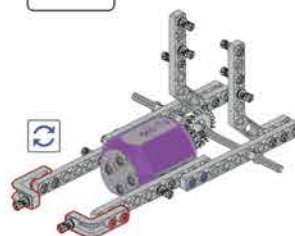
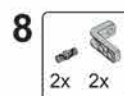
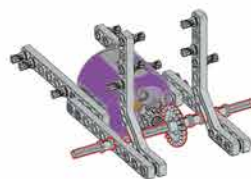
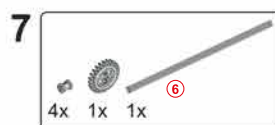
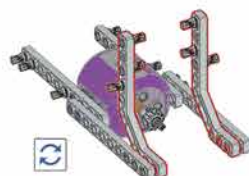
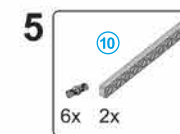
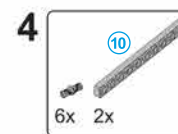
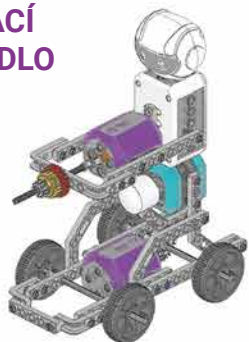
FUNKCE:

Po spuštění programu se radarové vozidlo pohybuje vpřed po určitou dobu, poté se zastaví a zároveň se začne otáčet radar na jeho horní části.

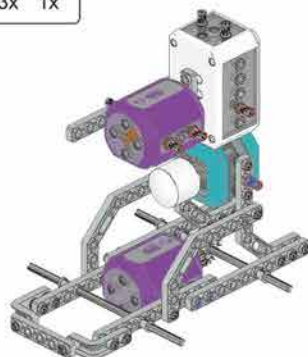
SCHÉMA ZAPOJENÍ

Zkontrolujte správné zapojení všech vodičů do určených portů, aby se předešlo funkčním chybám.

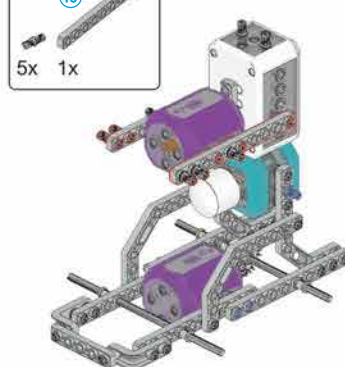
7. INFRAČERVENÉ VRTACÍ VOZIDLO



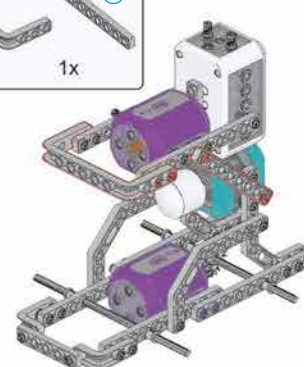
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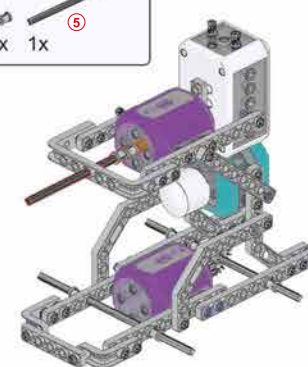
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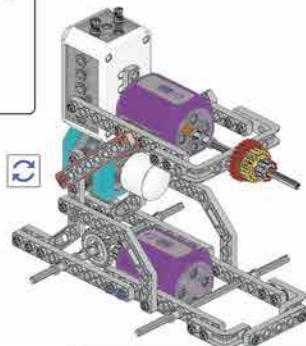
19 



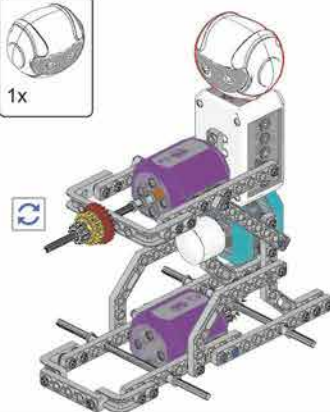
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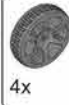


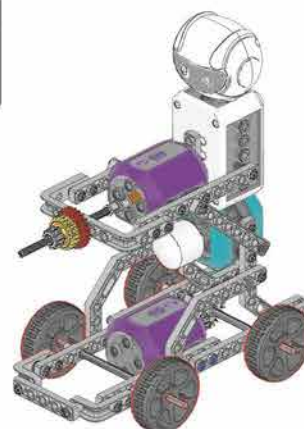
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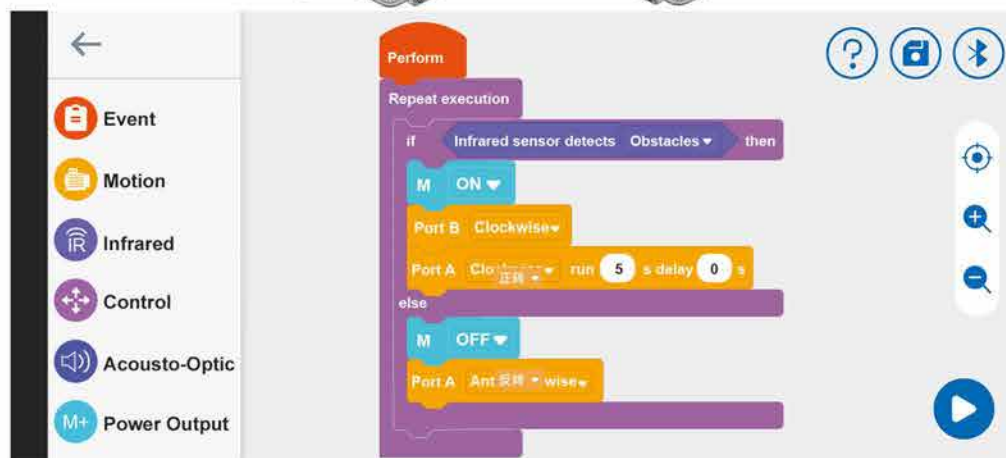
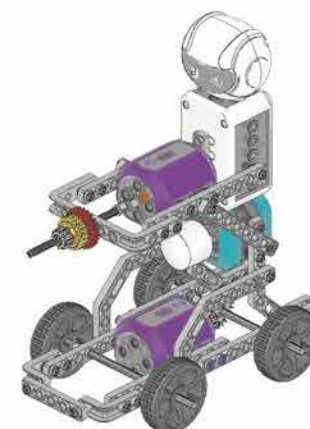
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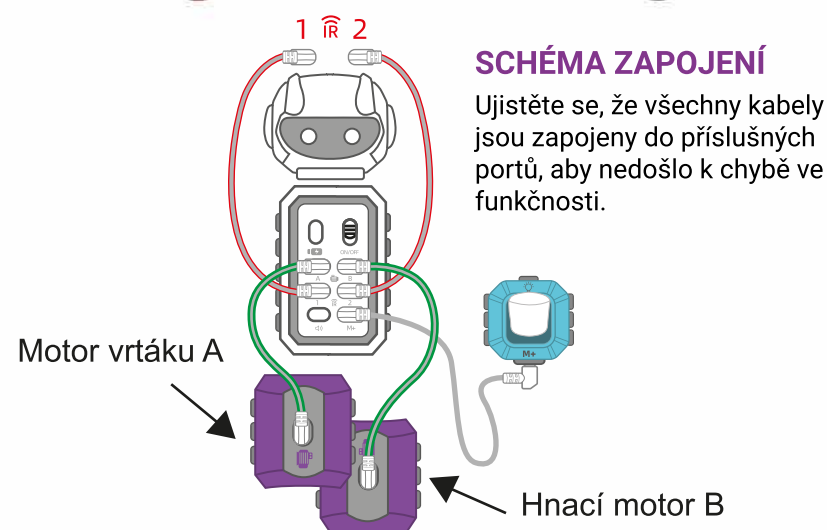
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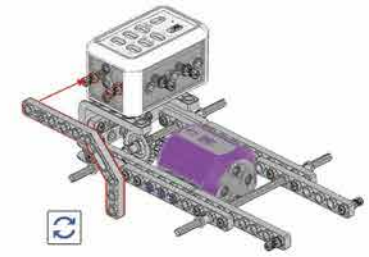
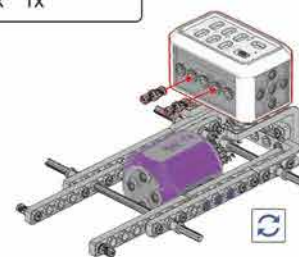
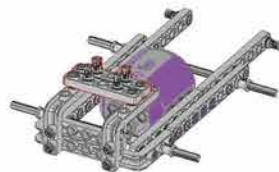
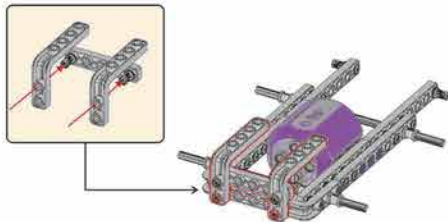
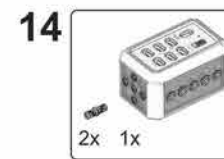
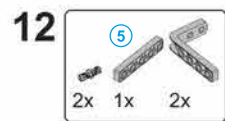
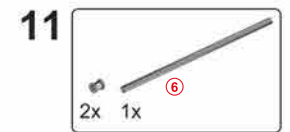
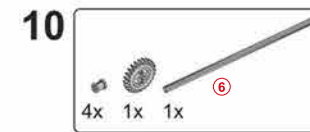
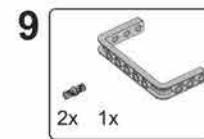
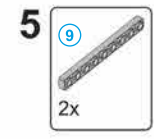
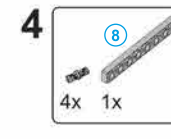
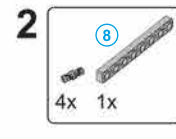
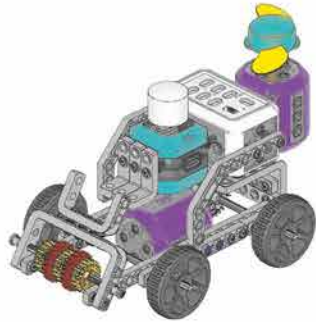
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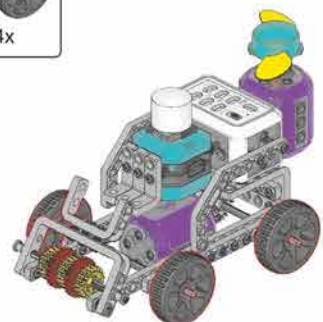
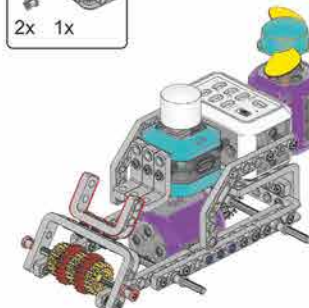
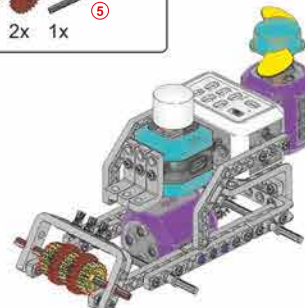
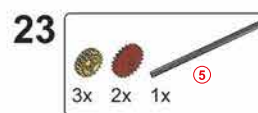
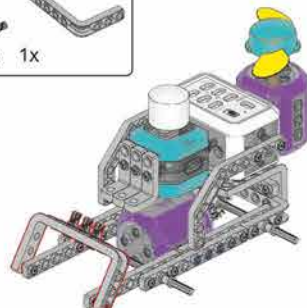
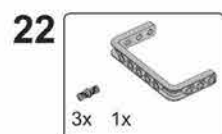
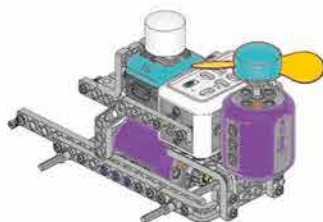
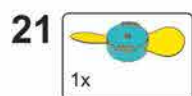
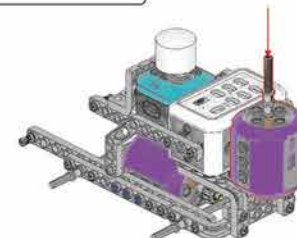
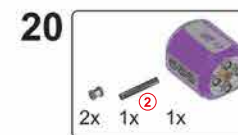
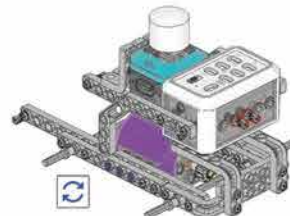
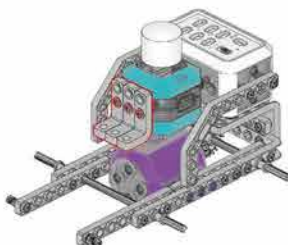
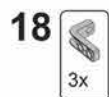
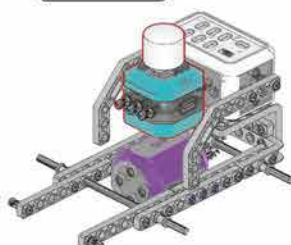
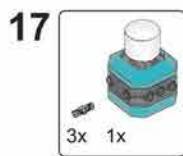
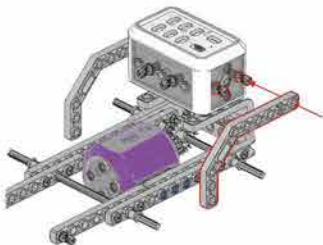
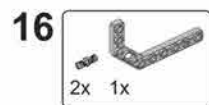


FUNKCE: Když infračervený senzor zaznamená objekt, vozidlo se zastaví a vrtací mechanismus se spustí a začne rotovat. Po určité době se vrták zastaví a vozidlo může pokračovat v jízdě podle nastavení programu.

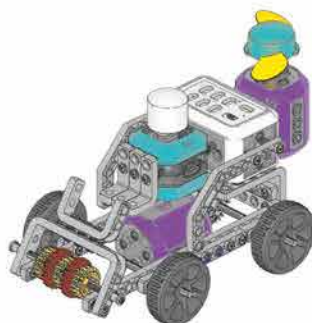


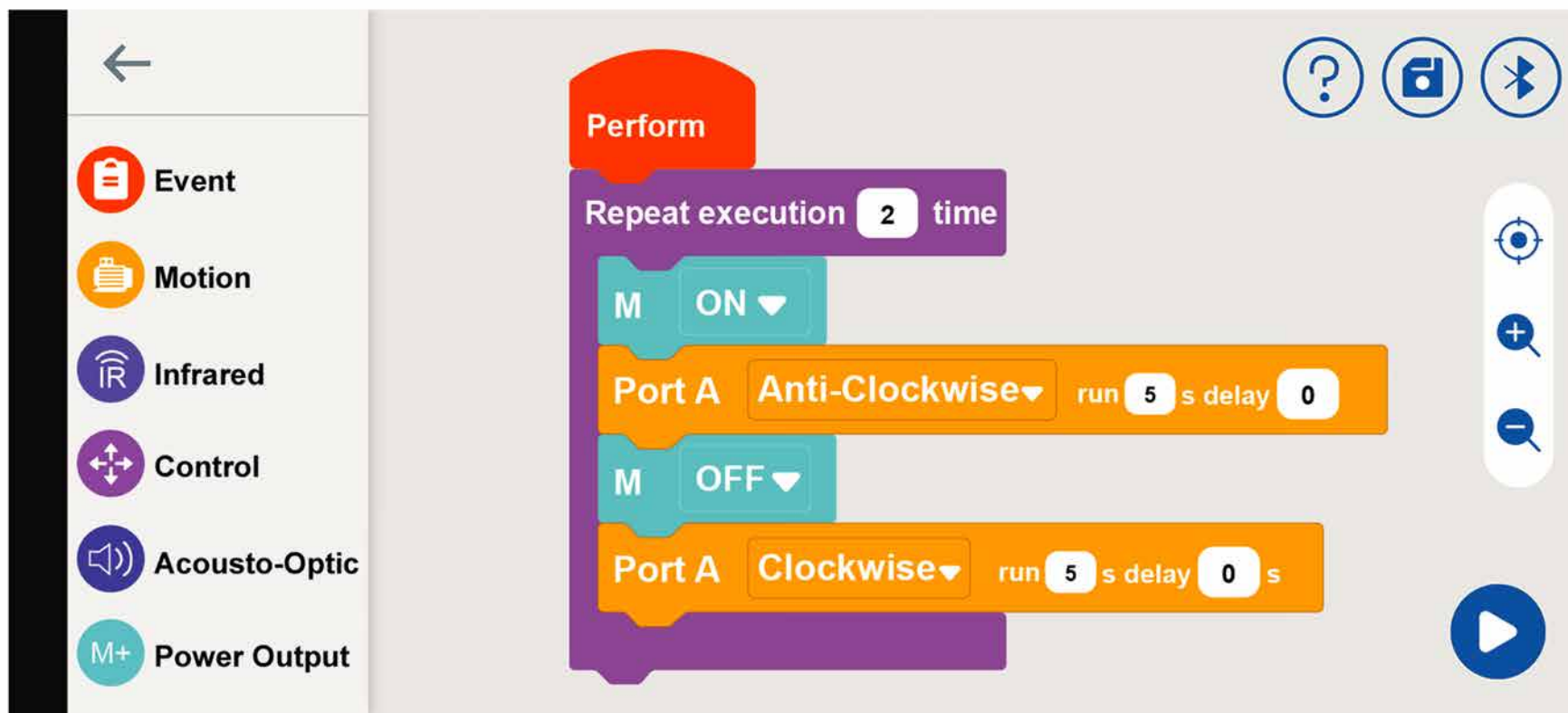
8. VOZIDLO SEKAČKY





26





FUNKCE: Po spuštění se rozsvítí světla a vozidlo se pohybuje vpřed. Po určité době se vozidlo zastaví a spustí se ventilátor.

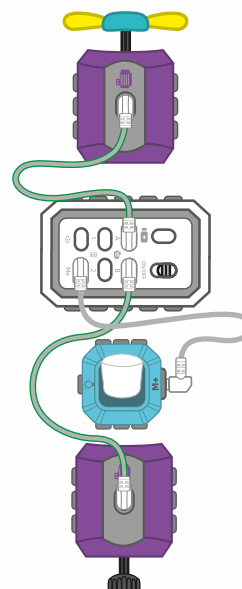
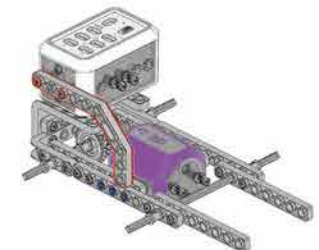
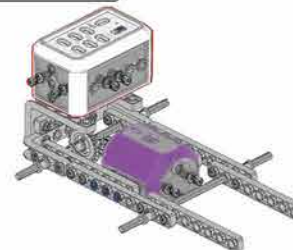
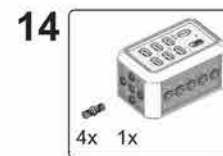
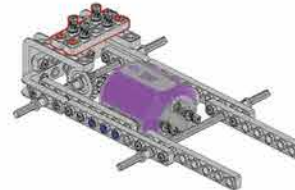
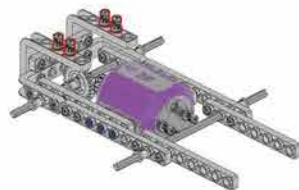
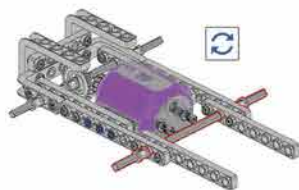
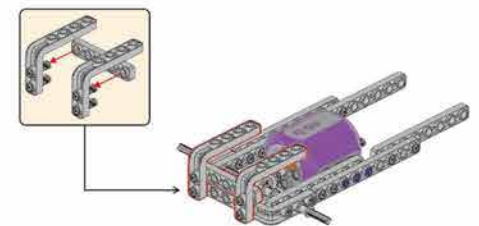
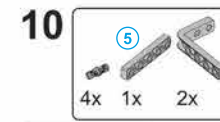
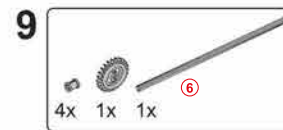
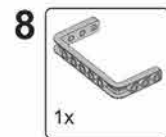
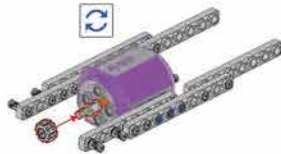
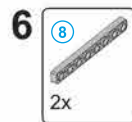
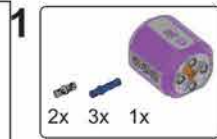
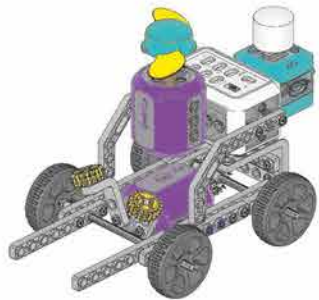
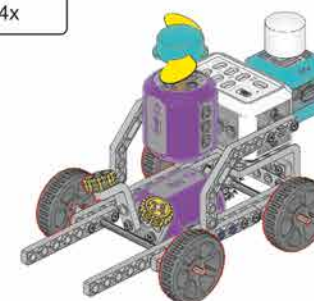
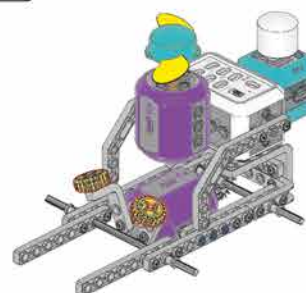
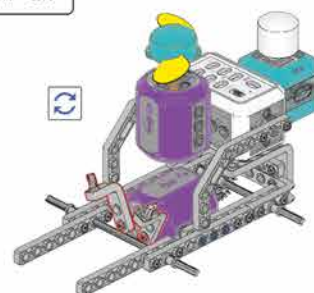
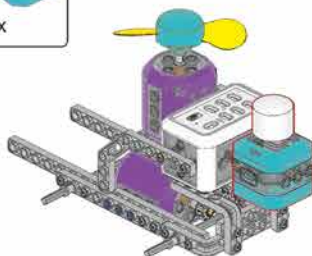
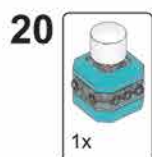
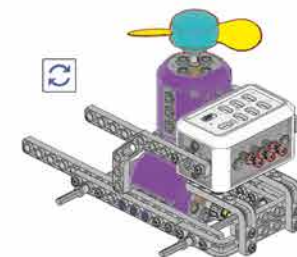
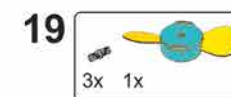
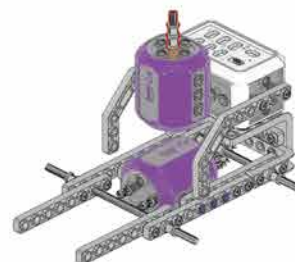
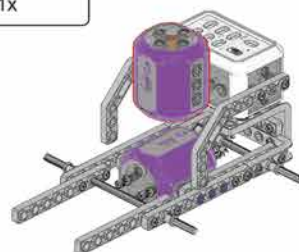
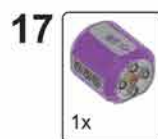
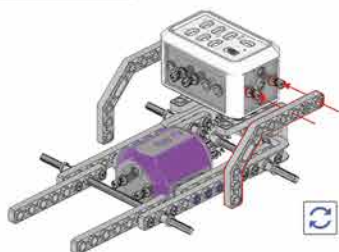
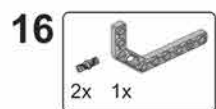


SCHÉMA ZAPOJENÍ

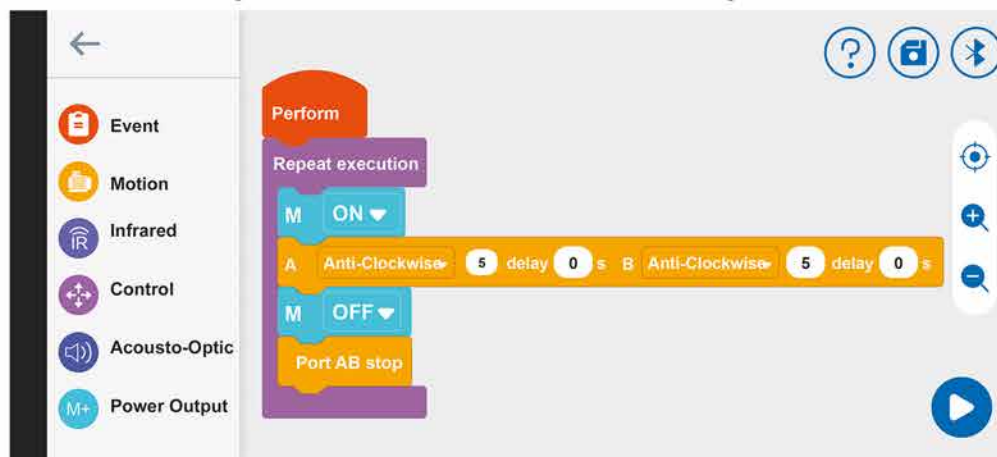
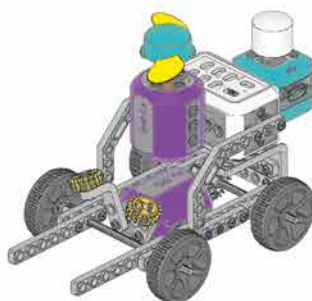
Zkontrolujte, že jsou všechny vodiče zasunuty do určených portů.

9.VOZIDLO PATHFINDER





24



FUNKCE: Po spuštění se rozsvítí světla, zapne se ventilátor a vozidlo se pohne vpřed.

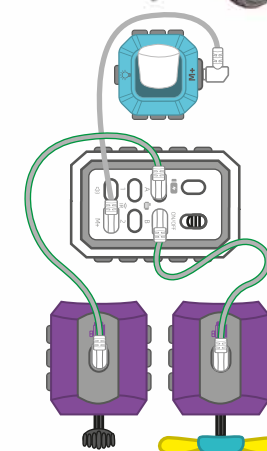
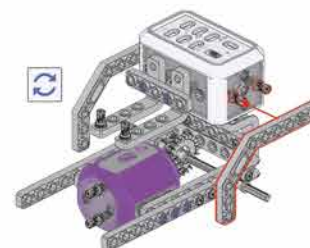
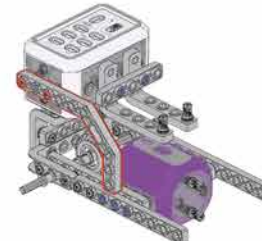
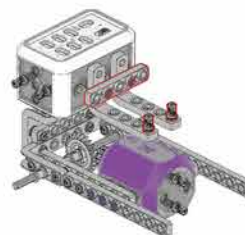
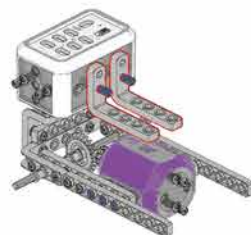
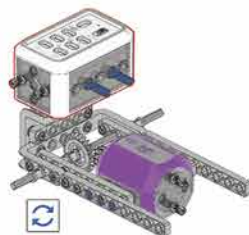
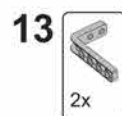
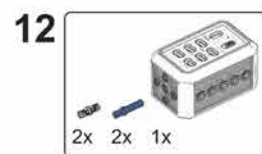
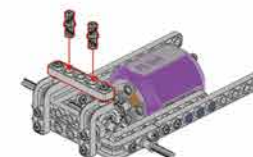
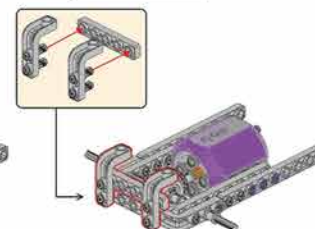
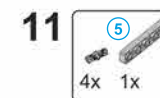
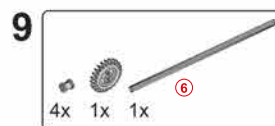
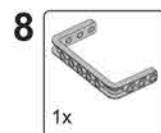
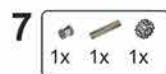
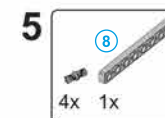
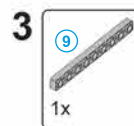
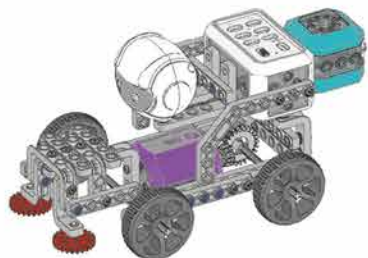
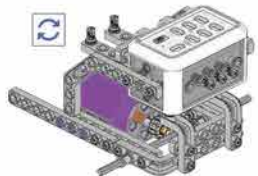


SCHÉMA ZAPOJENÍ
Ověřte správné zapojení kabelů do určených portů.

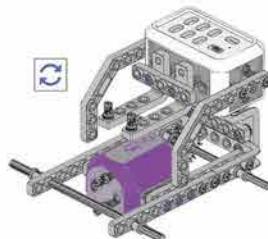
10. POPLAŠNÉ VOZIDLO



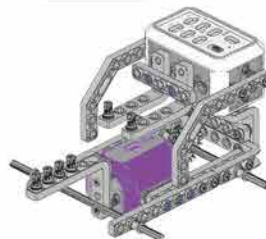
17  3x



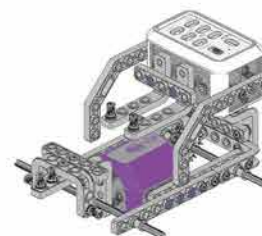
18  2x 1x 



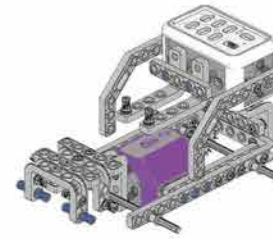
19  4x 1x



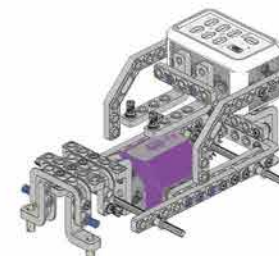
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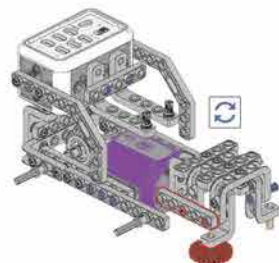
21  2x 2x 1x 1x



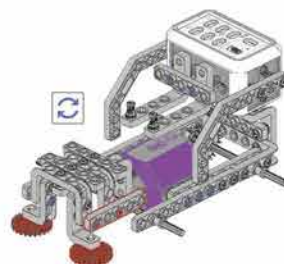
22  2x 2x



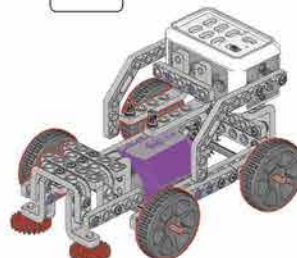
23  1x 1x



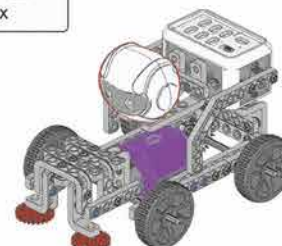
24  1x 1x



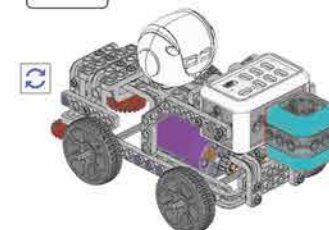
25  4x



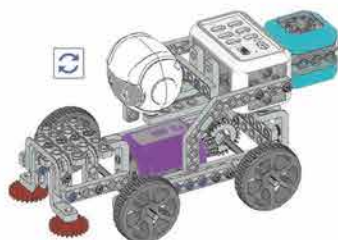
26  1x

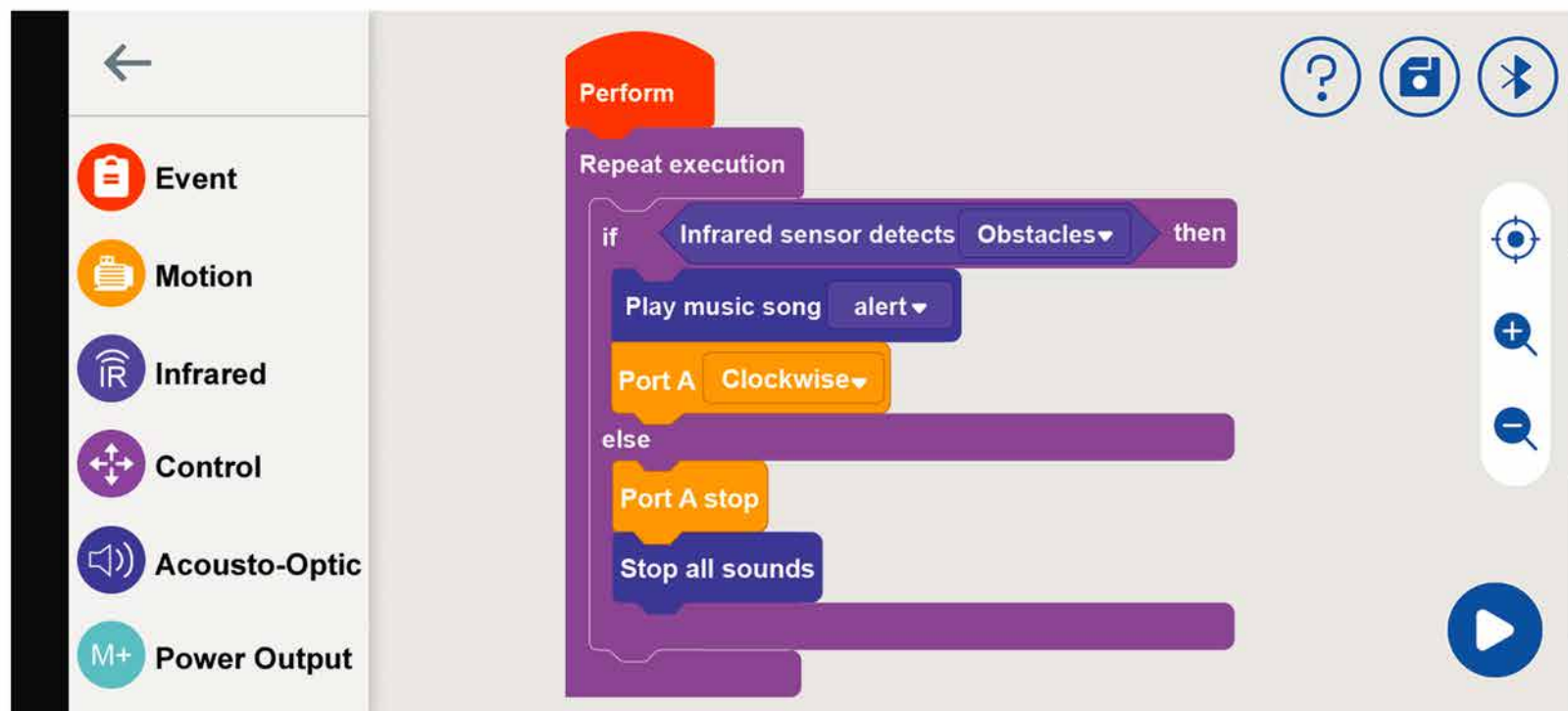


27  1x



28





FUNKCE:

Po spuštění se vozidlo rozjede. Jakmile před sebou zjistí překážku, zastaví a spustí alarm.

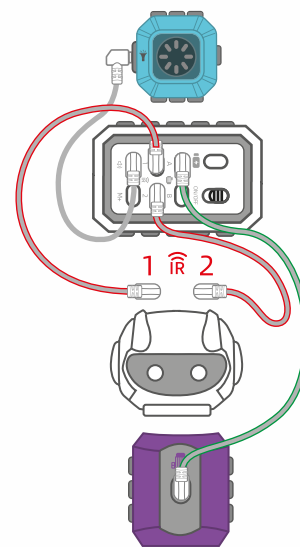
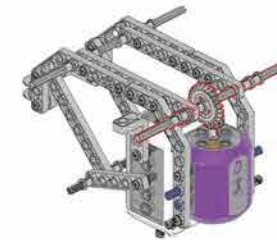
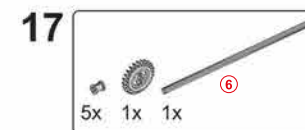
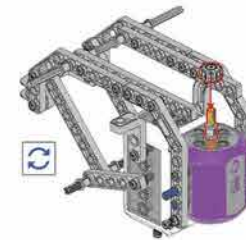
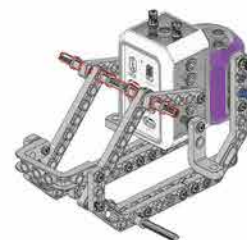
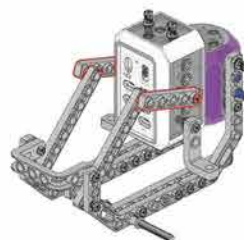
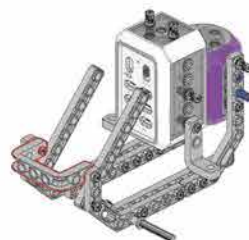
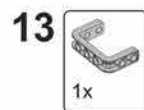
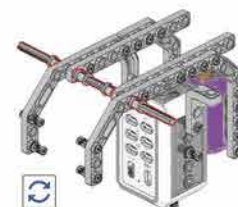
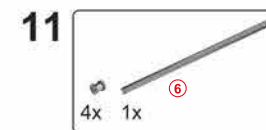
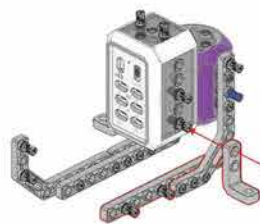
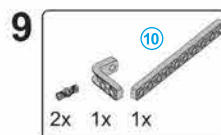
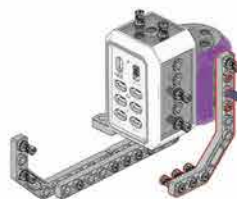
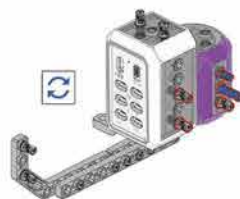
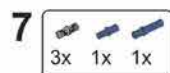
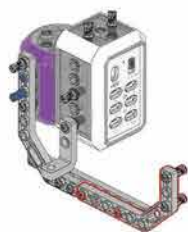
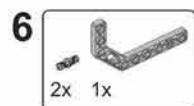
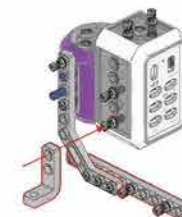
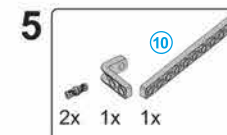
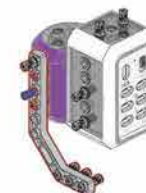
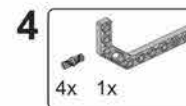
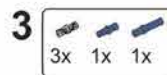
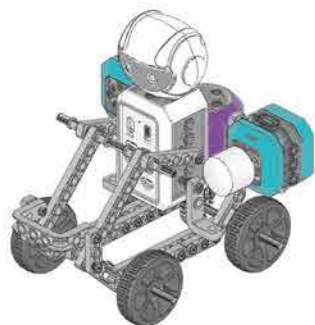
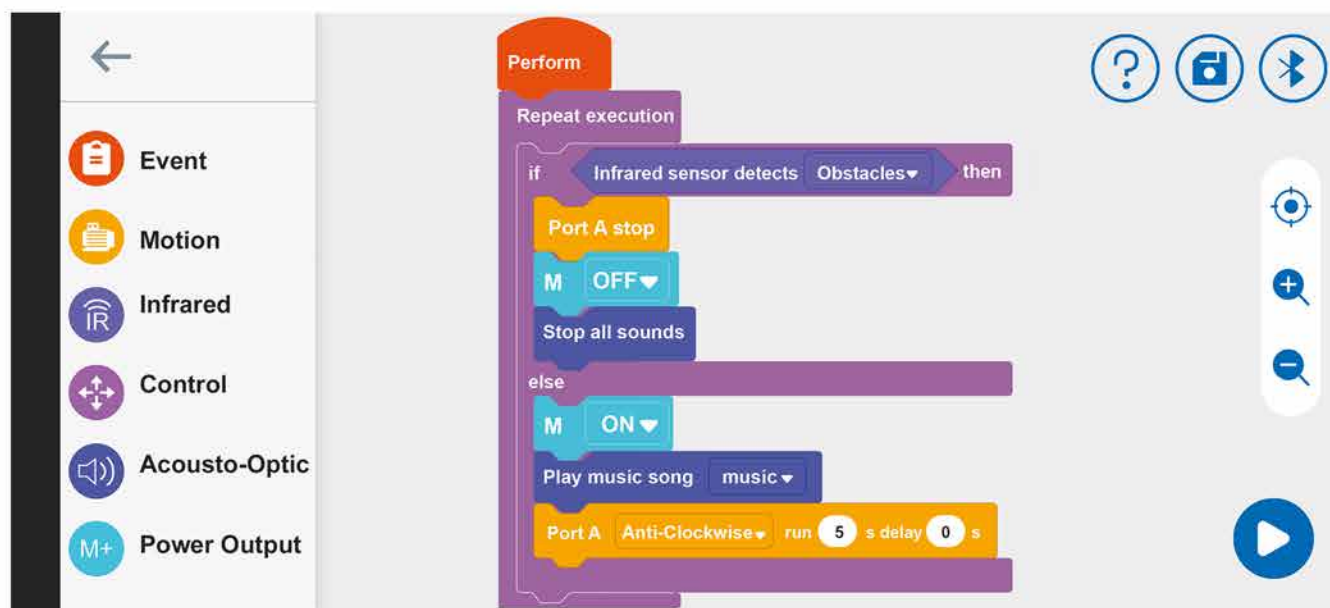
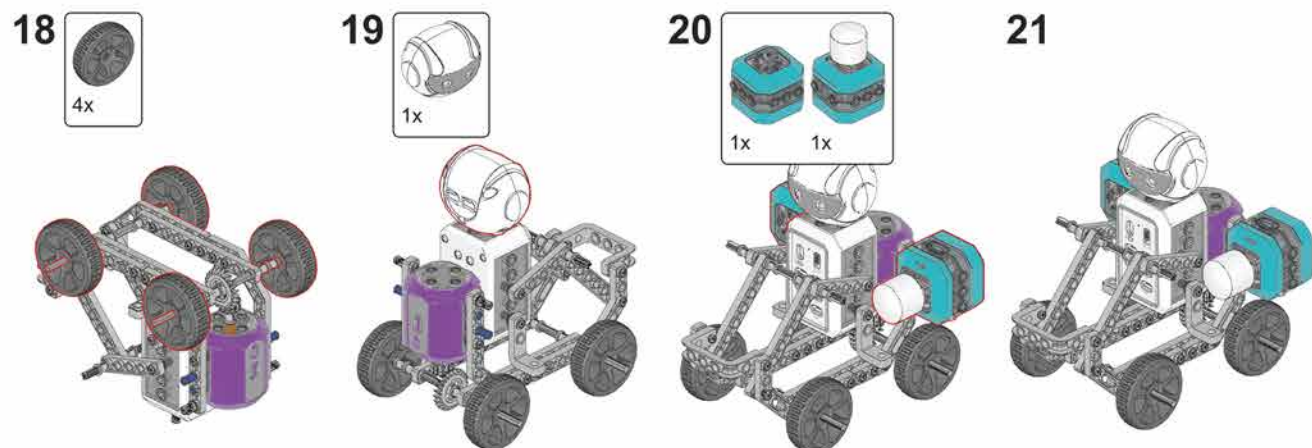


SCHÉMA ZAPOJENÍ

Ověřte správné zapojení kabelů do určených portů.

11. VESELÉ KOLO





FUNKCE:

Po spuštění se vozidlo rozjede. Při detekci překážky se zastaví a přehraje hudbu.

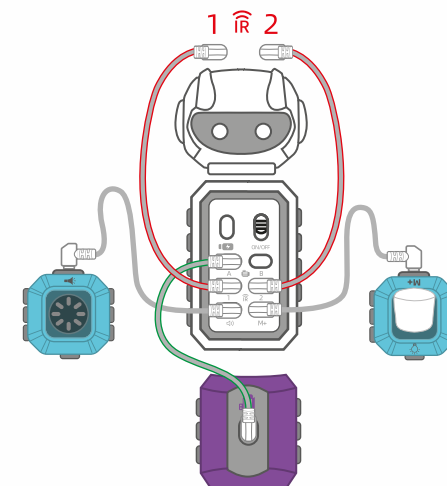
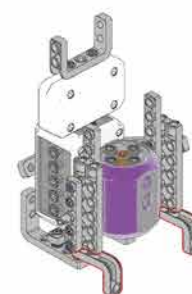
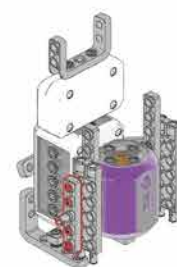
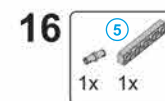
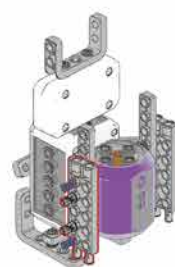
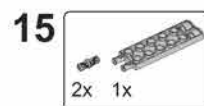
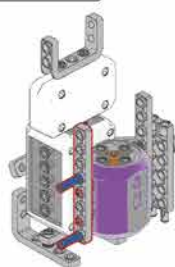
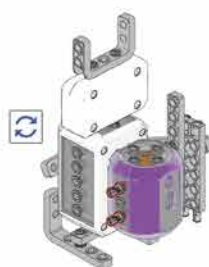
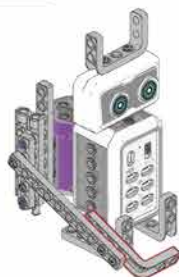
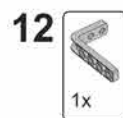
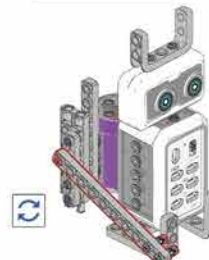
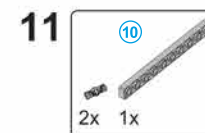
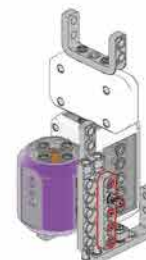
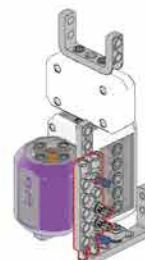
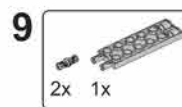
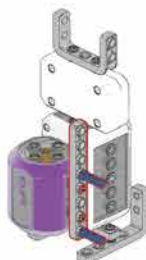
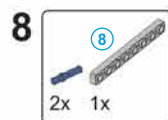
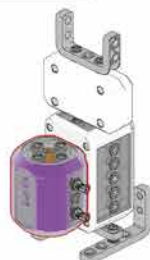
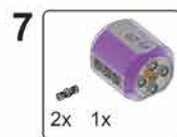
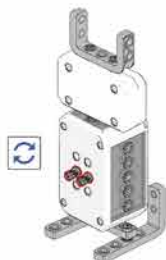
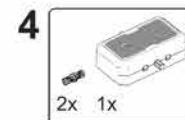
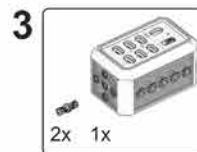
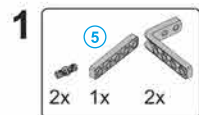
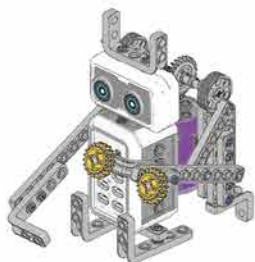
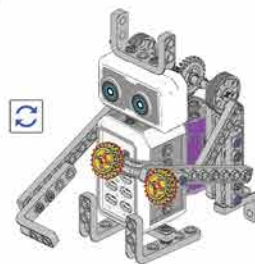
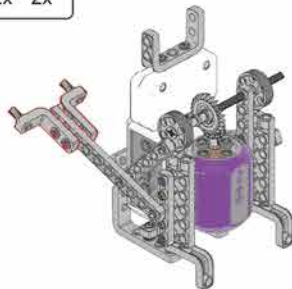
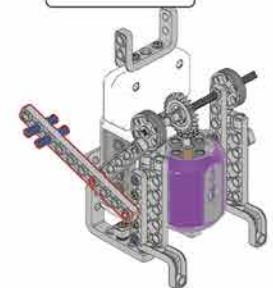
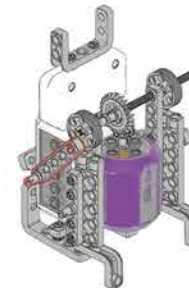
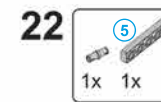
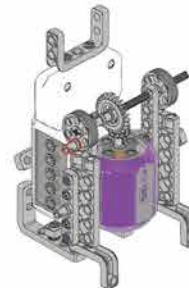
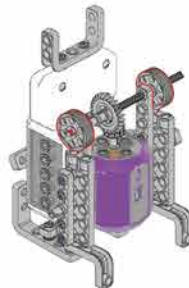
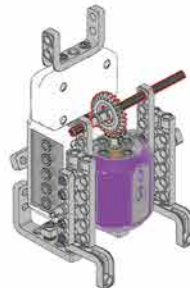
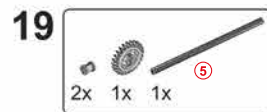
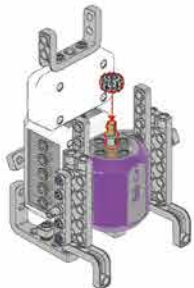


SCHÉMA ZAPOJENÍ

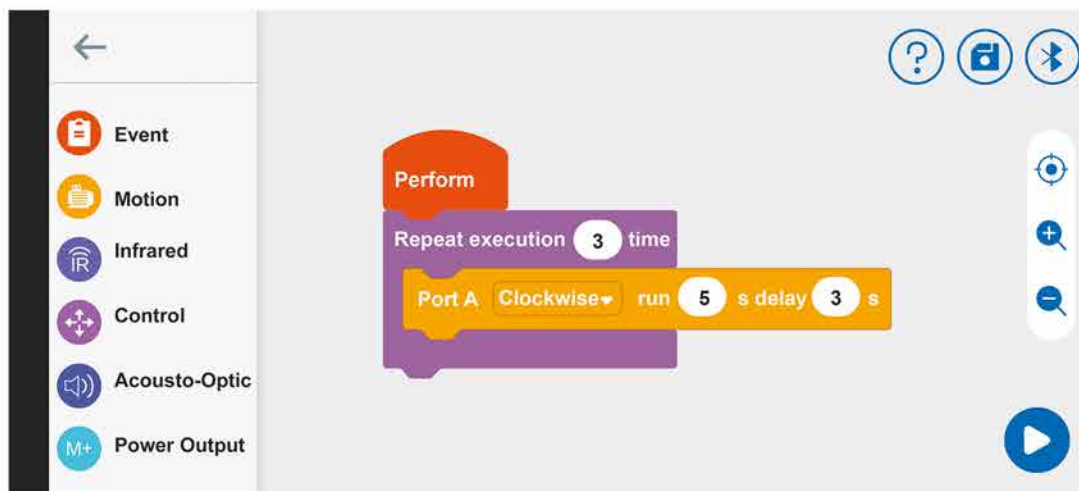
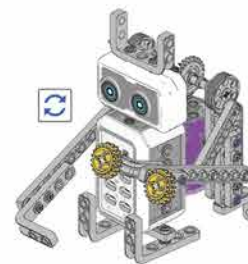
Ověřte správné zapojení kabelů do určených portů.

12.MANEKI NEKO = MÁVAJÍCÍ KOČIČKA





26



FUNKCE:

Po spuštění se začne kývat přední packa (ruky) kočky.

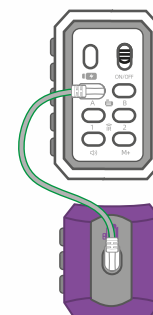
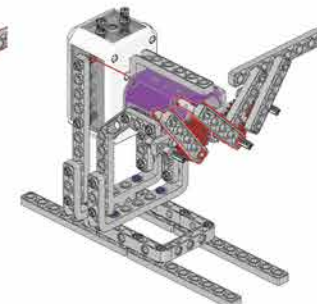
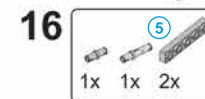
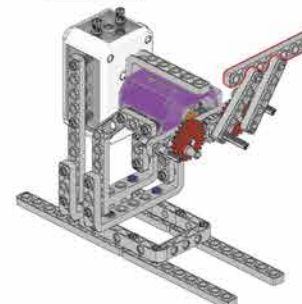
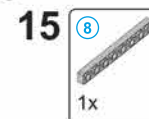
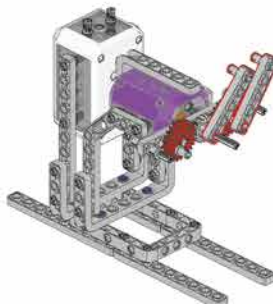
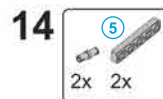
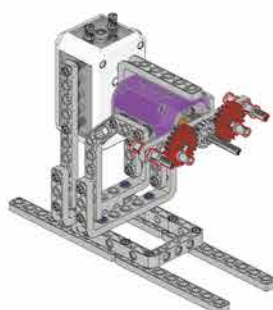
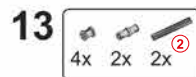
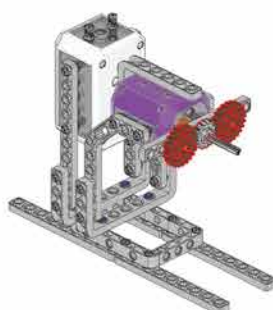
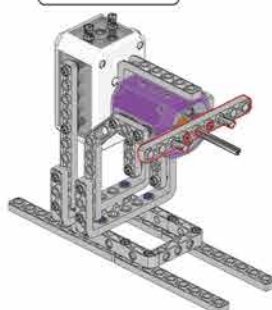
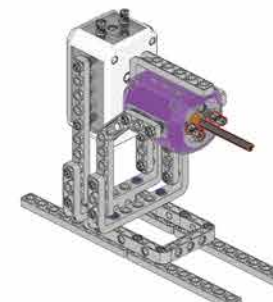
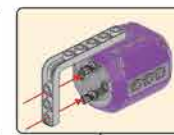
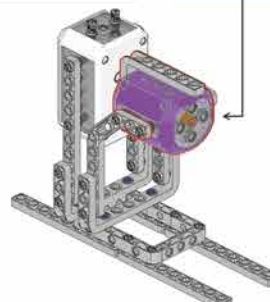
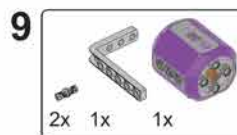
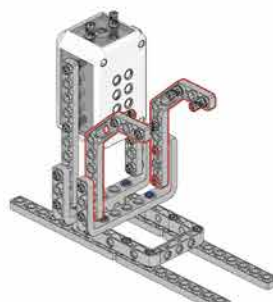
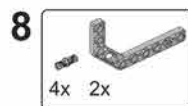
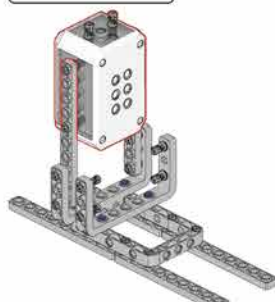
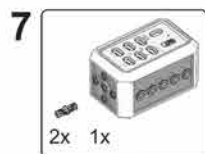
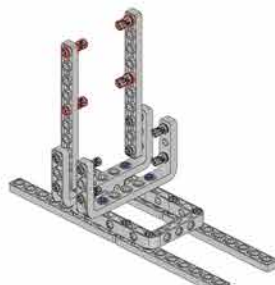
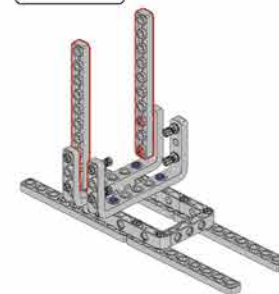
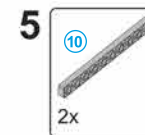
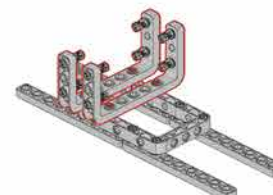
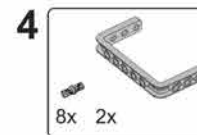
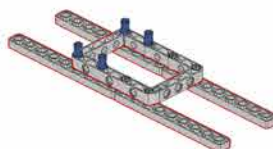
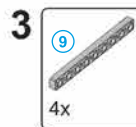
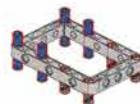
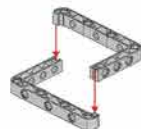
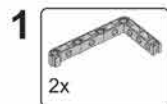
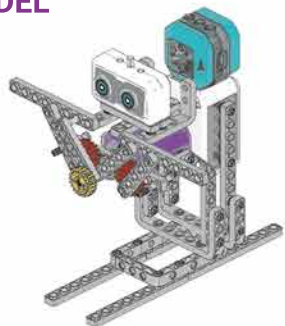
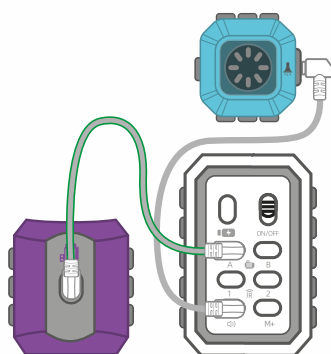
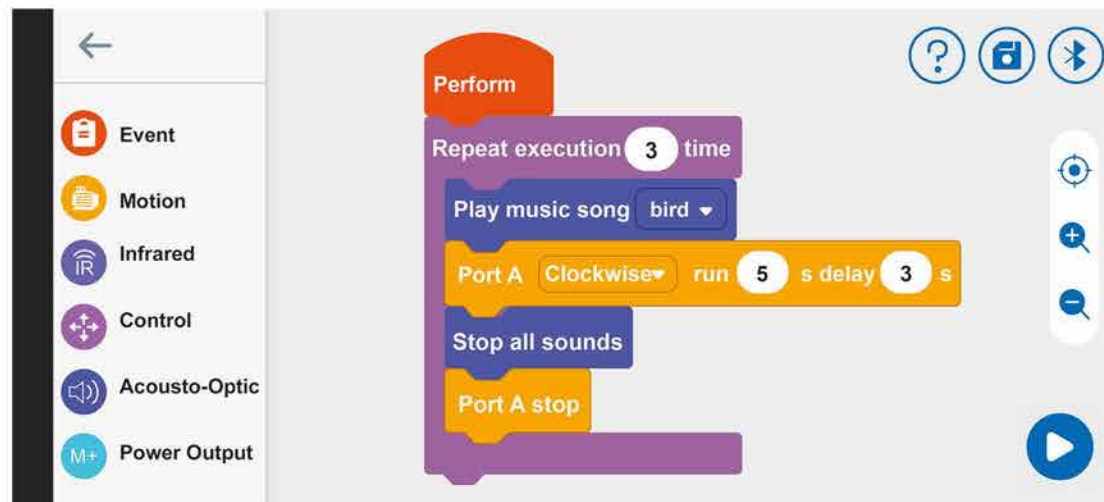
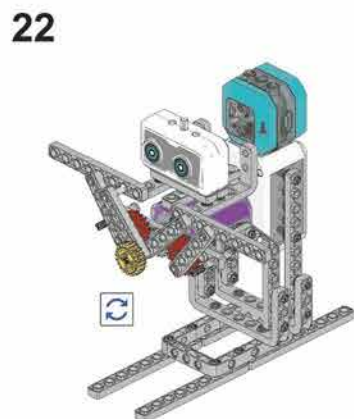
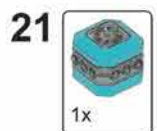
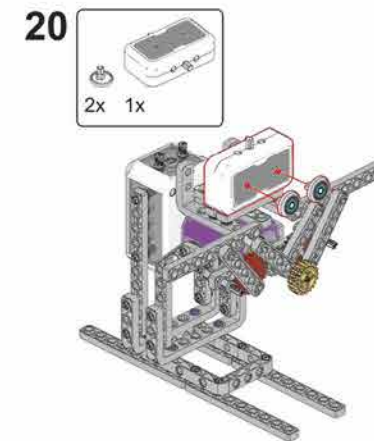
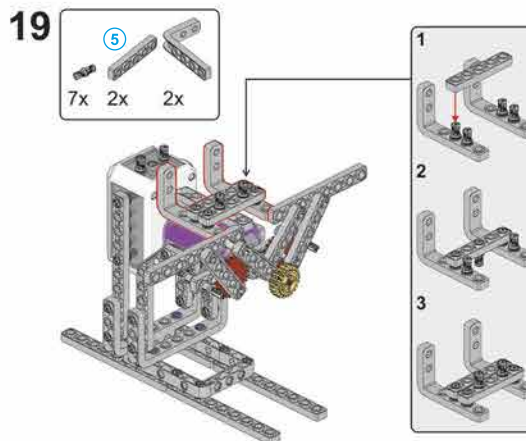


SCHÉMA ZAPOJENÍ

Ověřte správné zapojení kabelů do určených portů.

13. SIMULACE MÁVÁNÍ KŘÍDEL





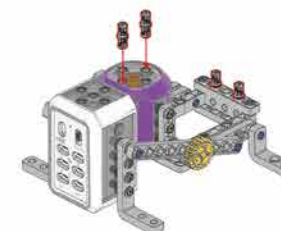
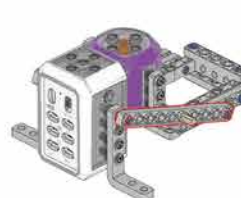
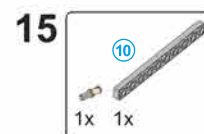
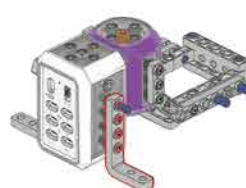
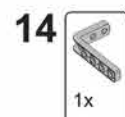
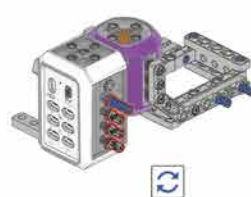
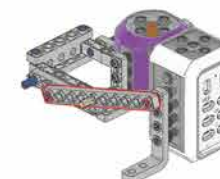
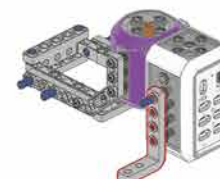
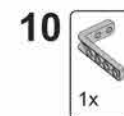
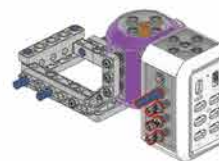
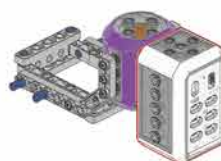
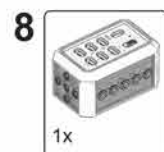
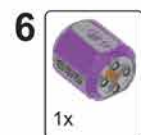
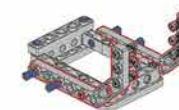
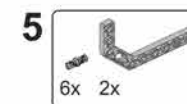
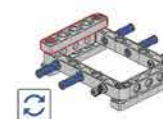
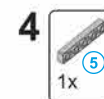
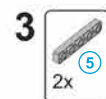
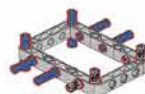
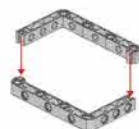
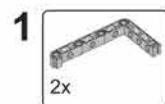
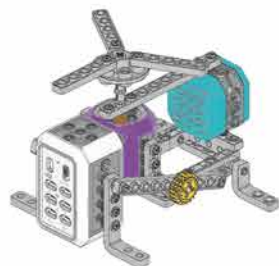
FUNKCE:

Po spuštění zazní ptačí štěbetání a zařízení začne mávat křídly.

SCHÉMA ZAPOJENÍ

Ověřte správné zapojení kabelů do určených portů.

14. HUDEBNÍ HELIKOPTÉRA



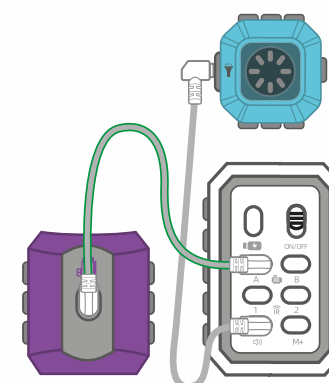
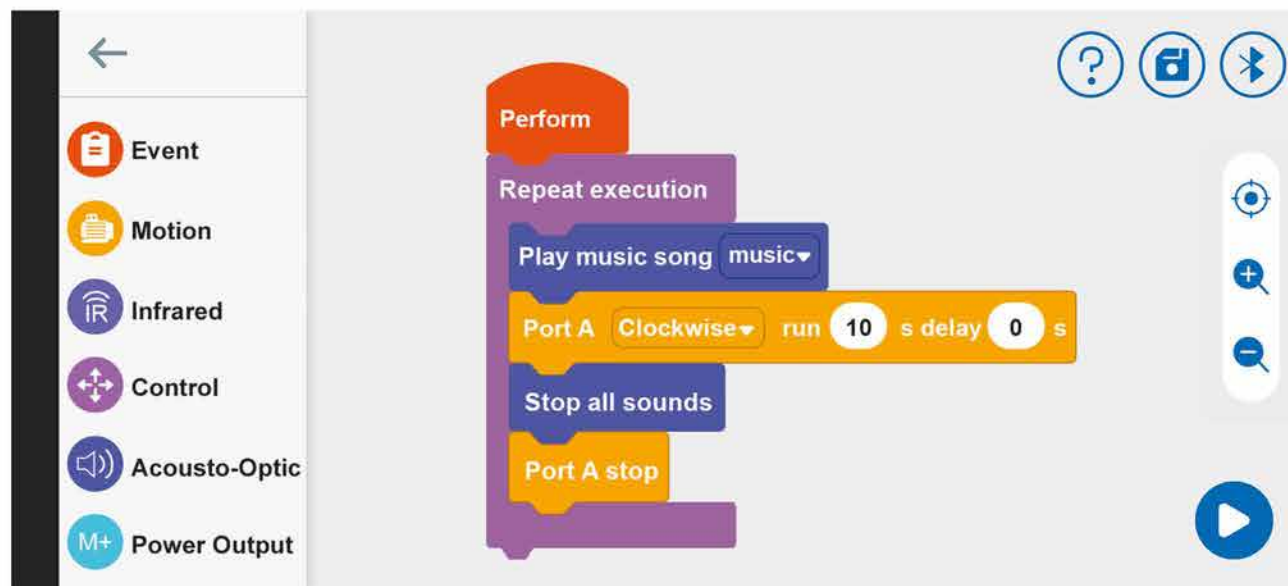
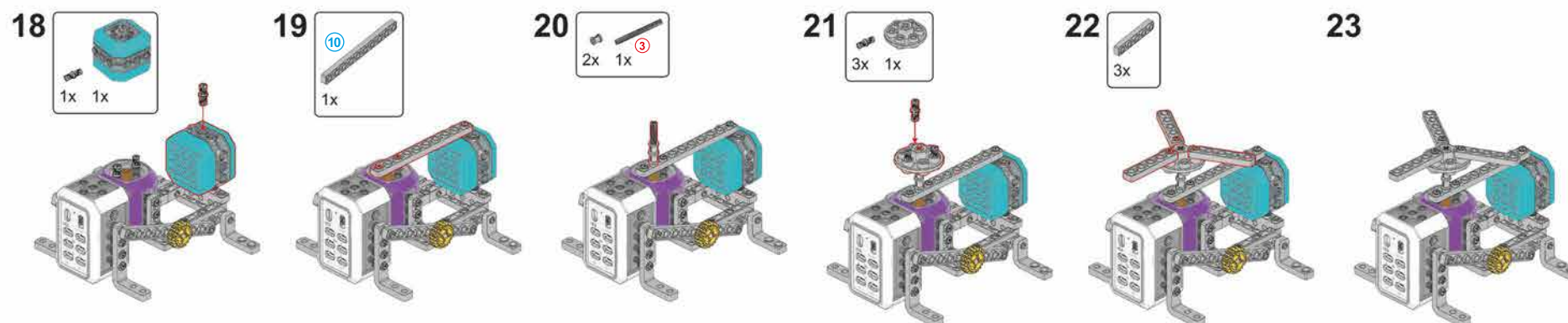


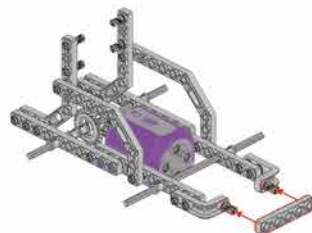
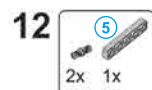
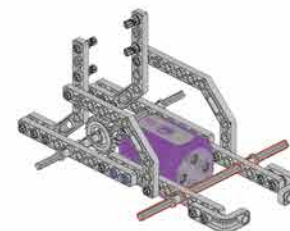
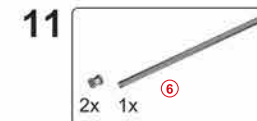
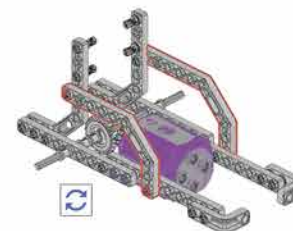
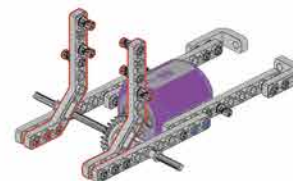
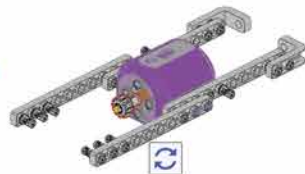
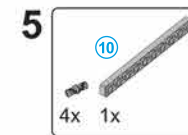
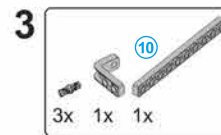
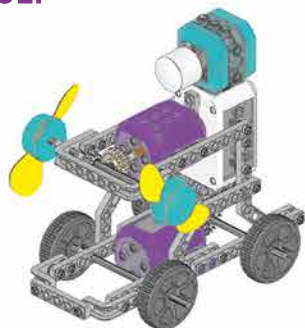
SCHÉMA ZAPOJENÍ

Ověřte správné zapojení kabelů do určených portů.

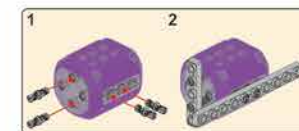
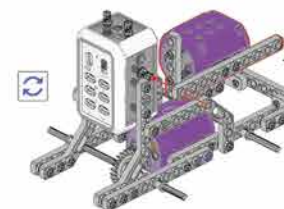
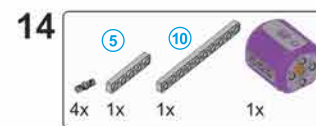
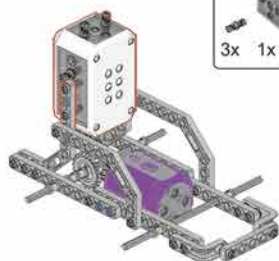
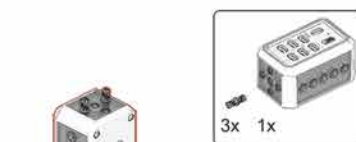
FUNKCE:

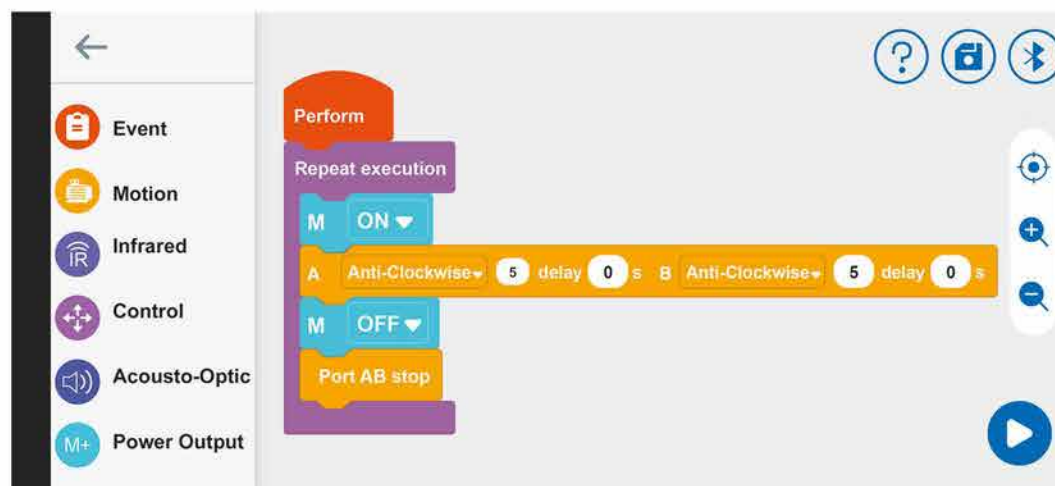
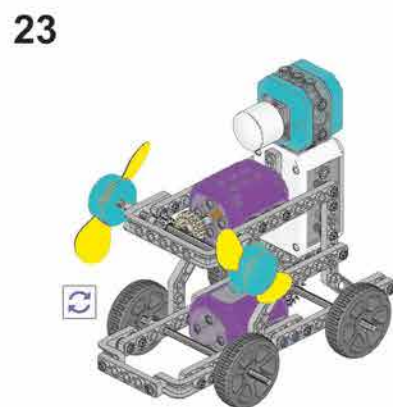
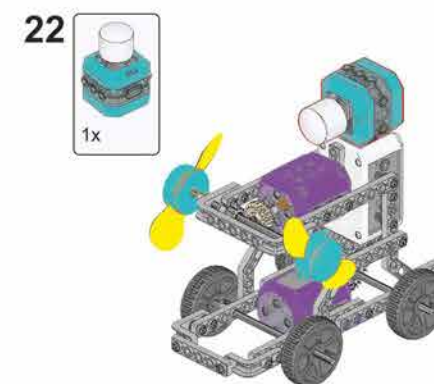
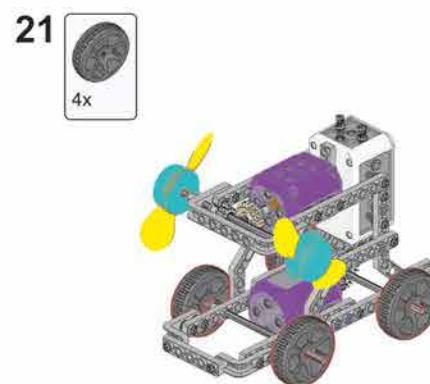
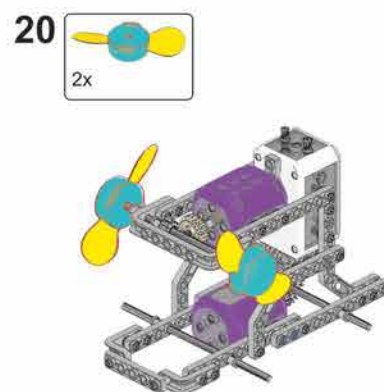
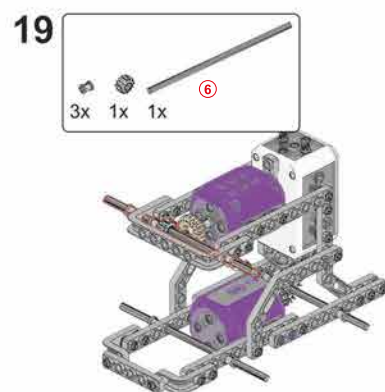
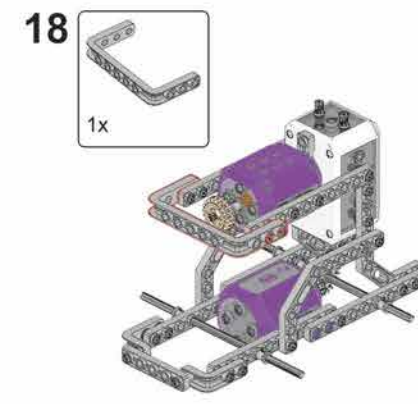
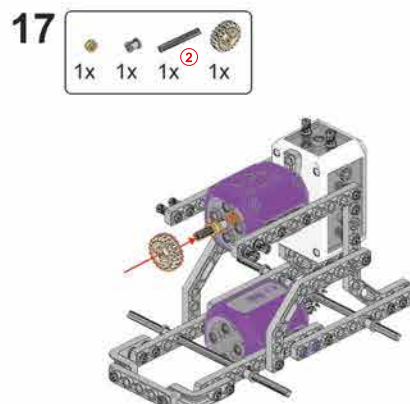
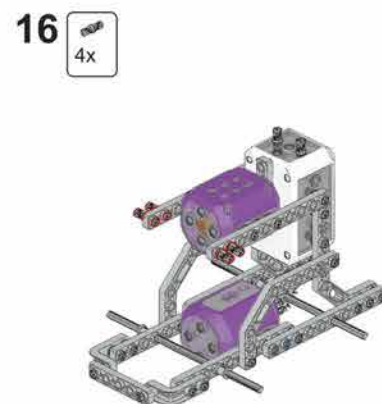
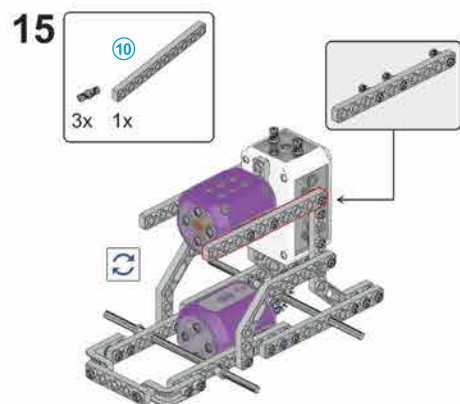
Po aktivaci se vrtule roztočí a přehraje se hudba.

15. OBRNĚNÉ VOZIDLO S KOLY



13





FUNKCE:

Po spuštění se rozsvítí světla, zapne se ventilátor a vozidlo se rozjede.

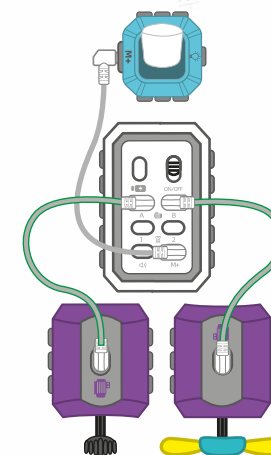
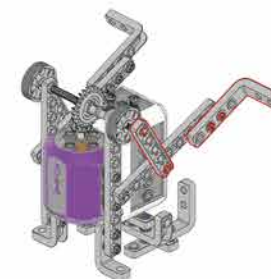
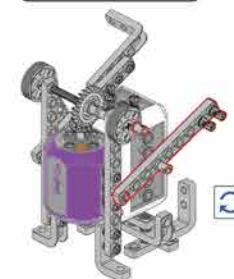
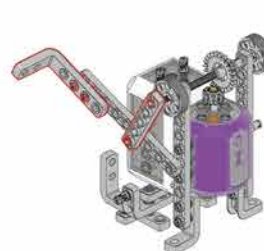
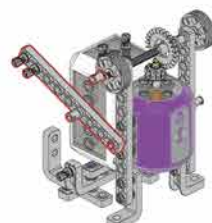
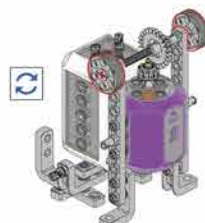
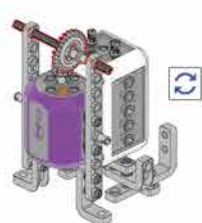
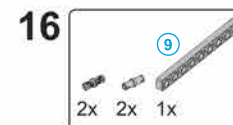
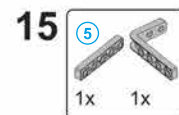
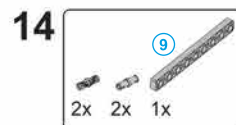
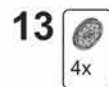
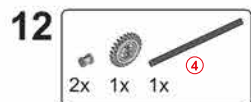
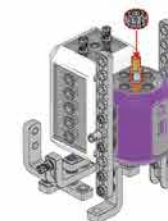
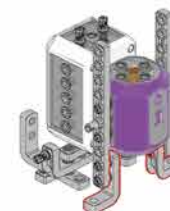
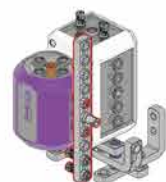
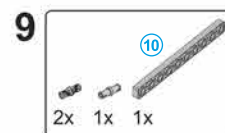
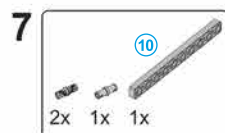
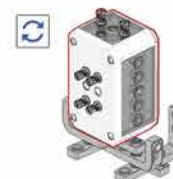
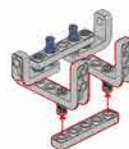
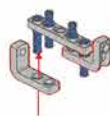
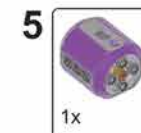
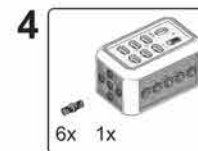
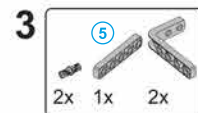
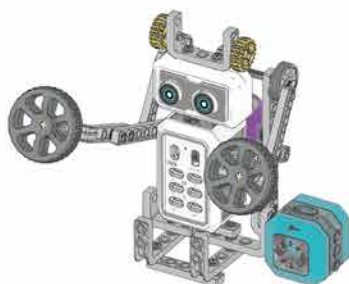
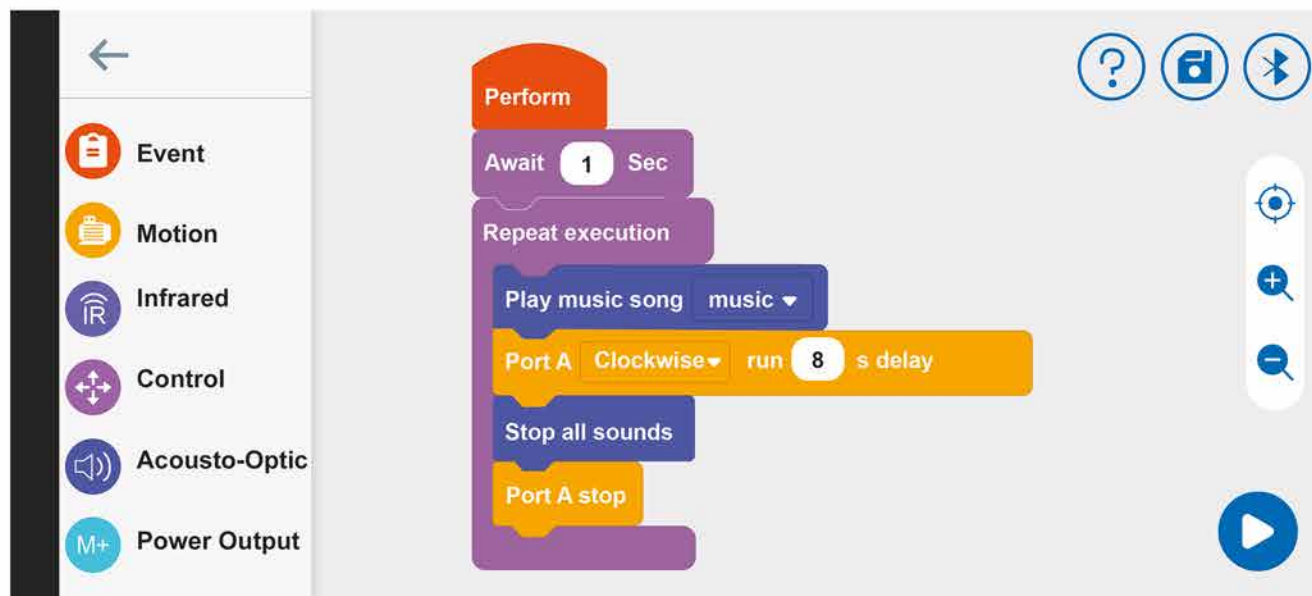
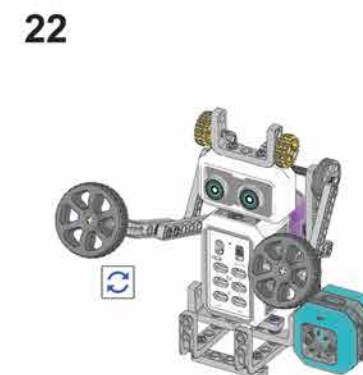
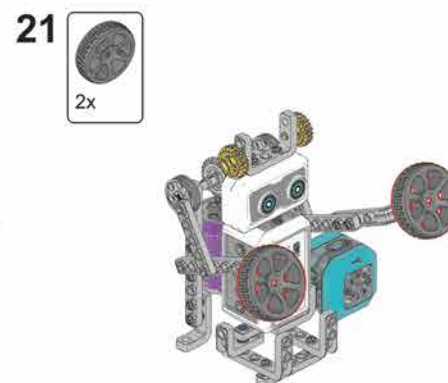
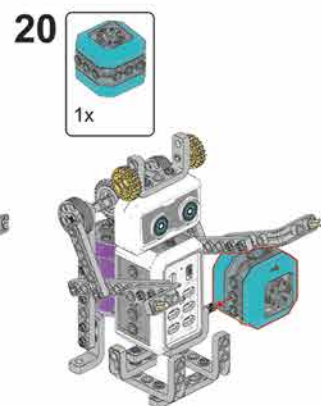
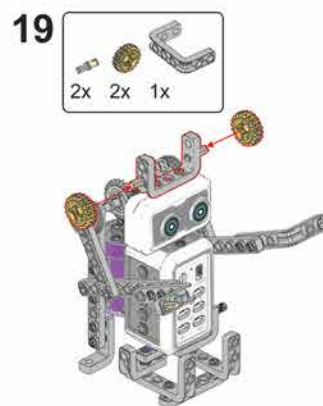
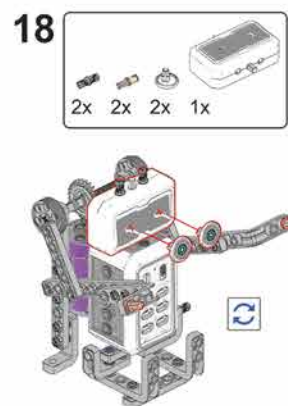


SCHÉMA ZAPOJENÍ

Ověřte správné zapojení kabelů do určených portů.

16. ROBOT SE ZÁVAŽÍM





FUNKCE:
Po spuštění robot začne zdvihát činky oběma rukama.

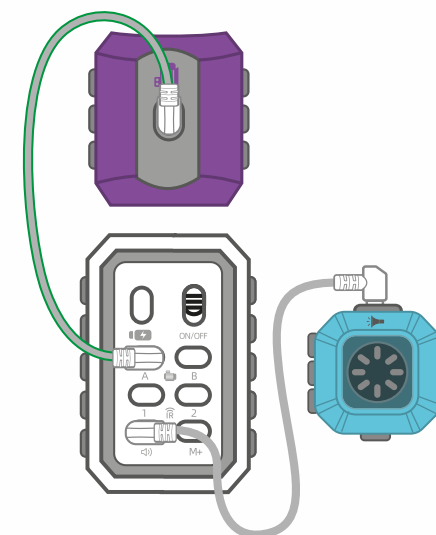
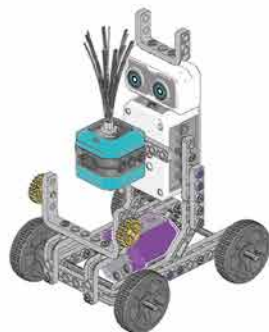


SCHÉMA ZAPOJENÍ

Ověřte správné zapojení kabelů do určených portů.

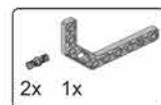
17. LAMPIONOVÝ ROBOT



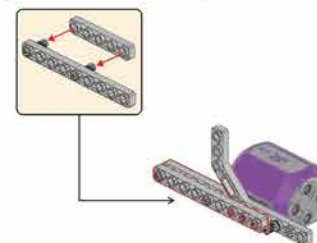
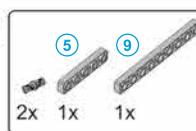
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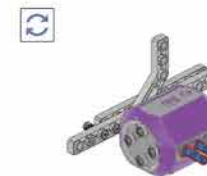
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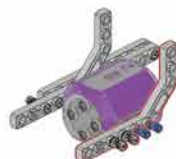
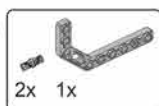
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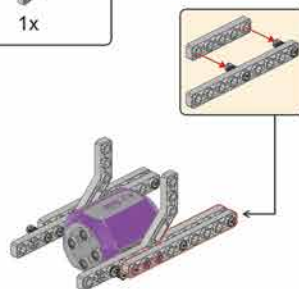
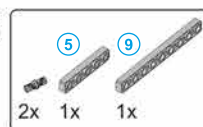
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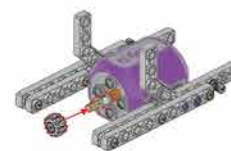
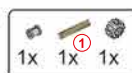
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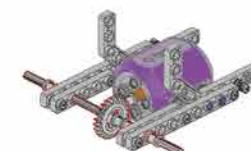
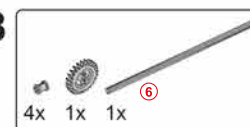
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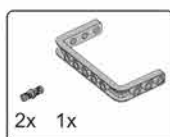
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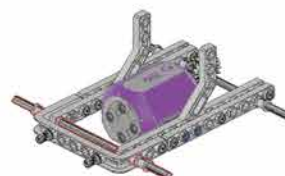
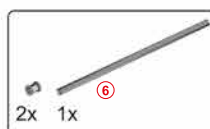
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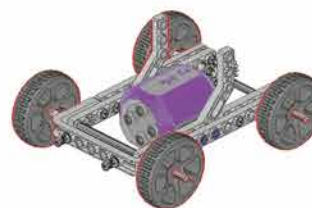
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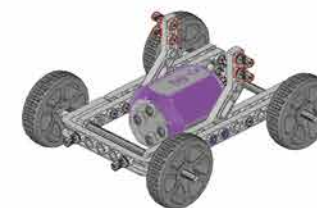
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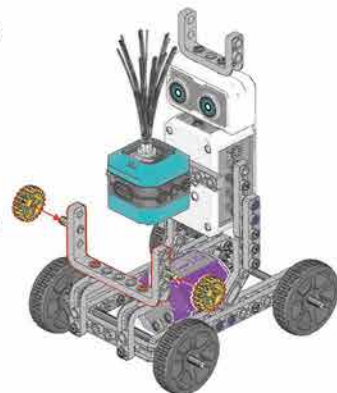
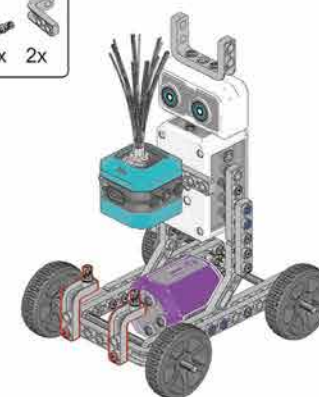
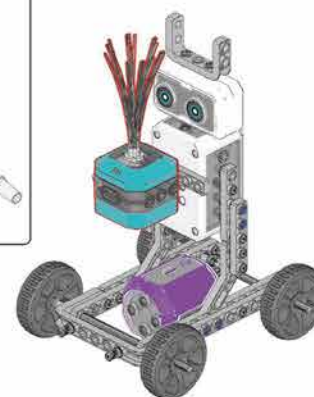
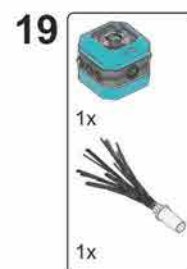
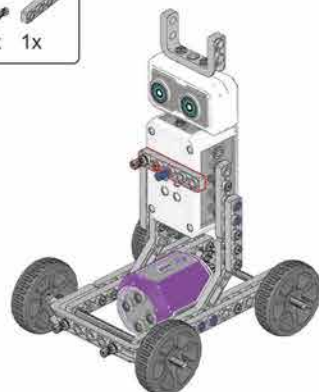
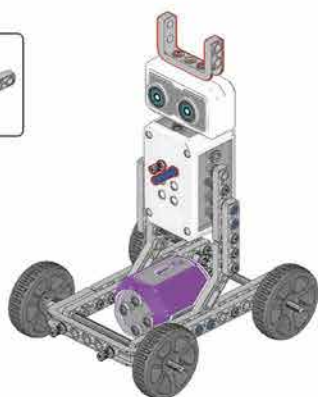
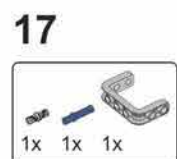
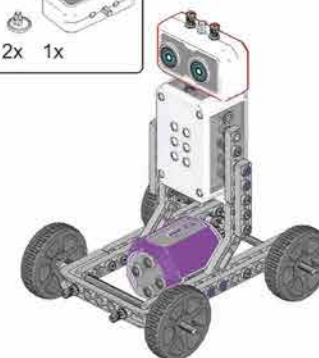
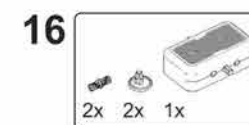
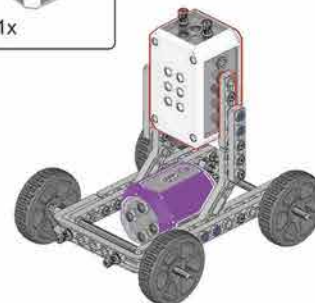
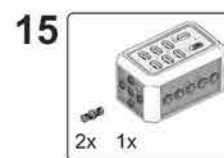
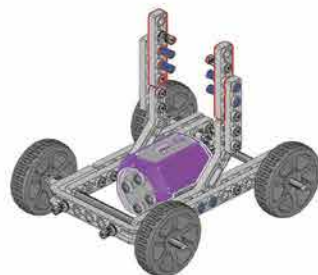
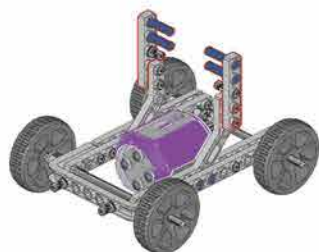


11

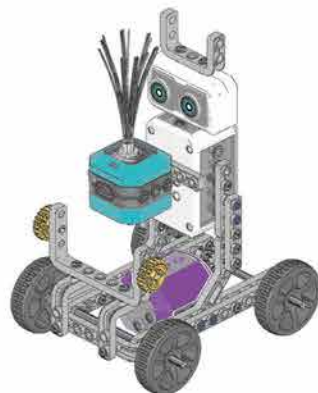


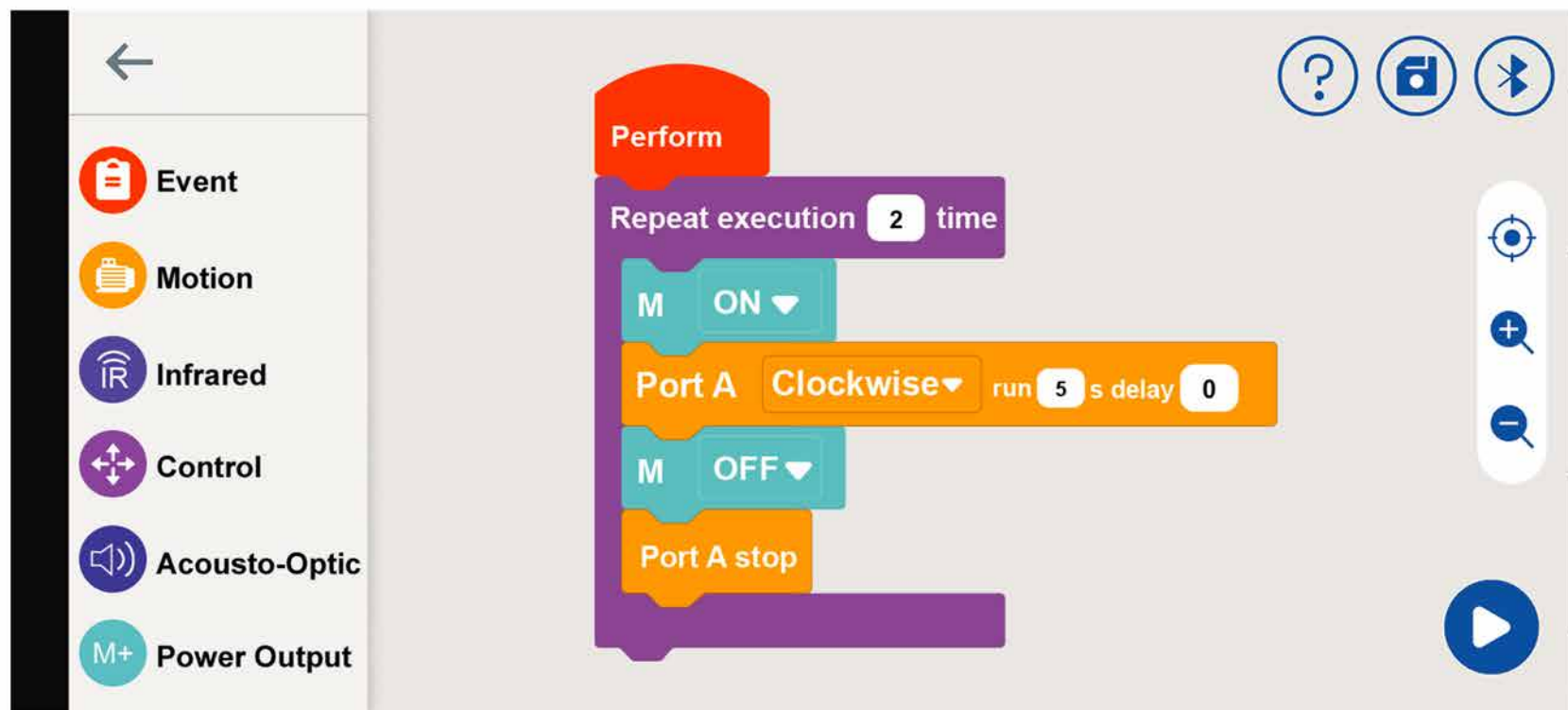
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22



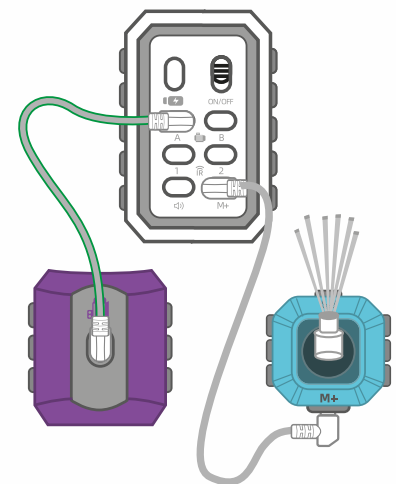


FUNKCE:

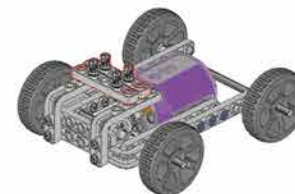
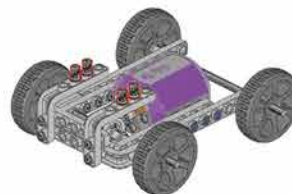
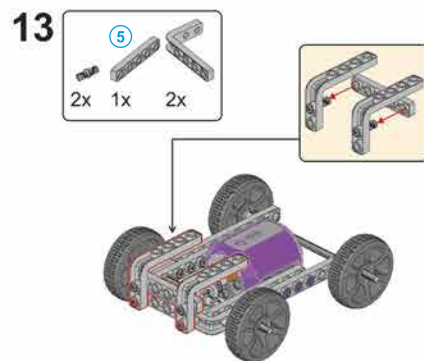
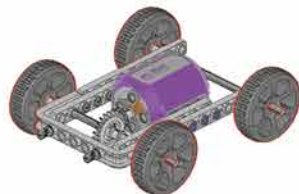
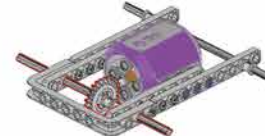
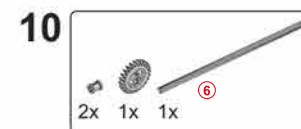
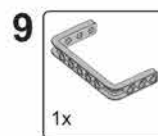
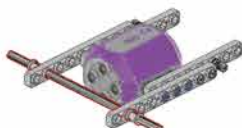
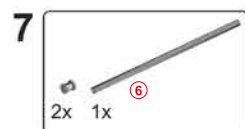
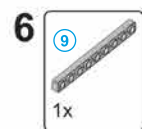
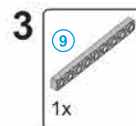
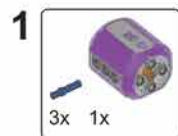
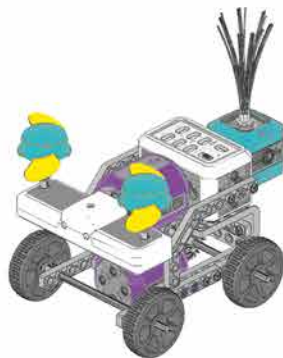
Po spuštění se rozsvítí barevná světla a vozidlo (robot) se začne pohybovat.

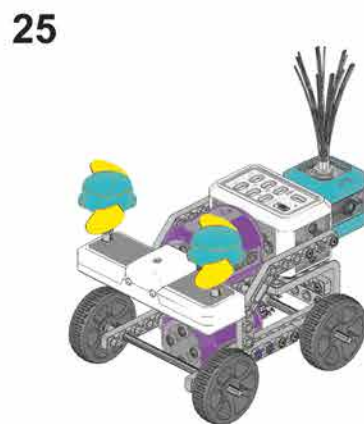
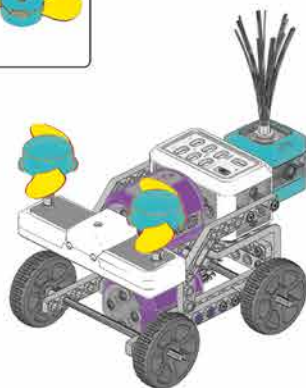
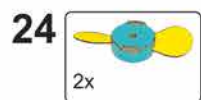
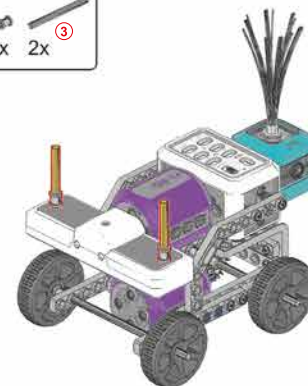
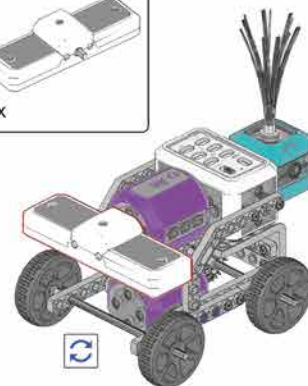
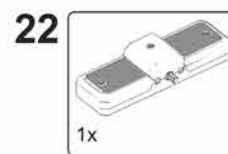
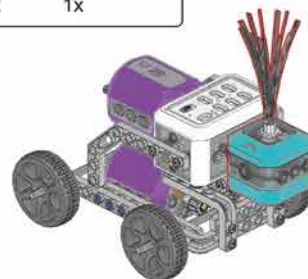
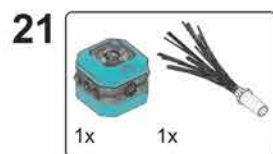
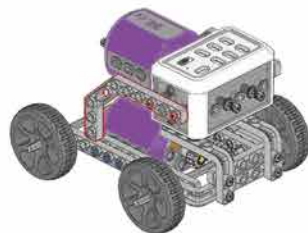
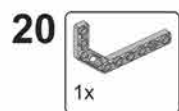
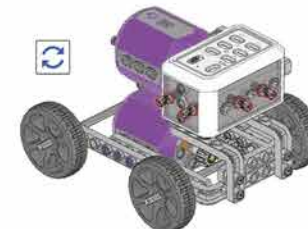
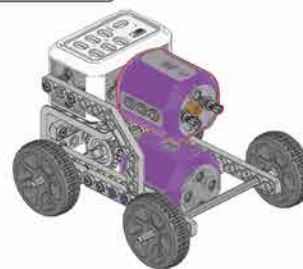
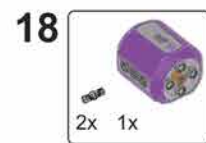
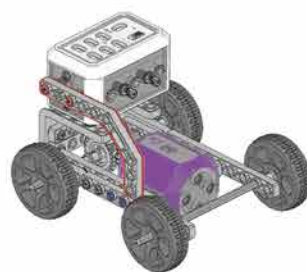
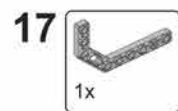
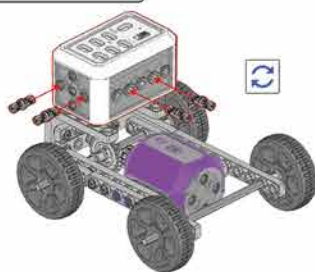
SCHÉMA ZAPOJENÍ

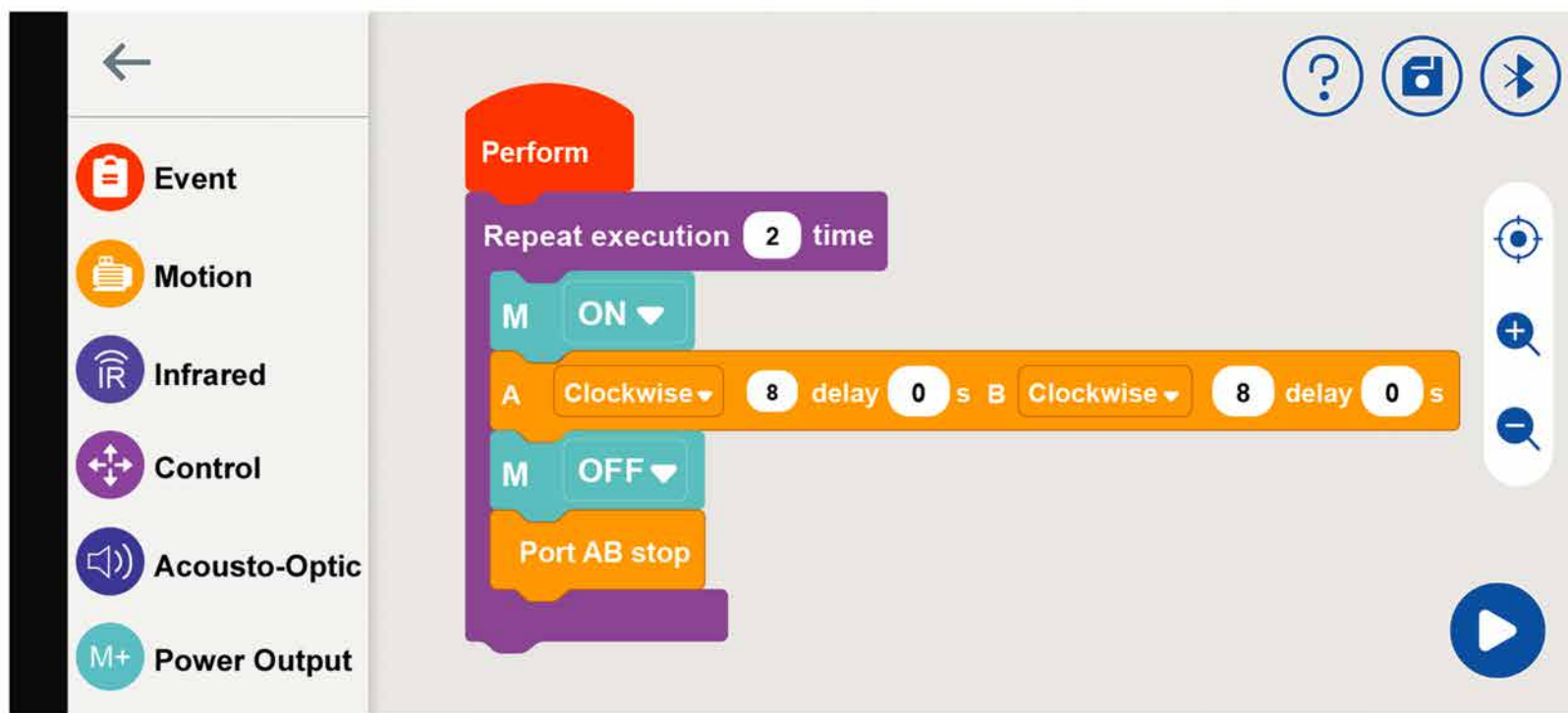
Ověřte správné zapojení kabelů do určených portů.



18. HLÍDKOVÝ VĚTRNÝ MLÝN





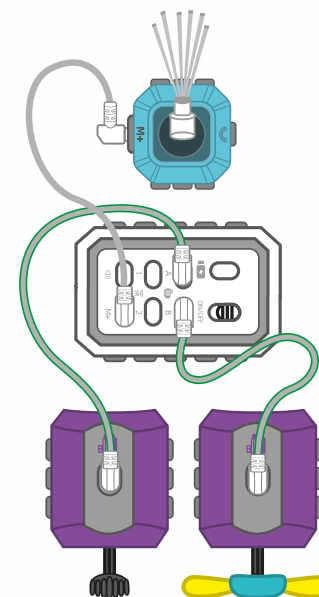


FUNKCE:

Po spuštění se rozsvítí barevná světla, roztočí se ventilátor a vozidlo se rozjede.

SCHÉMA ZAPOJENÍ

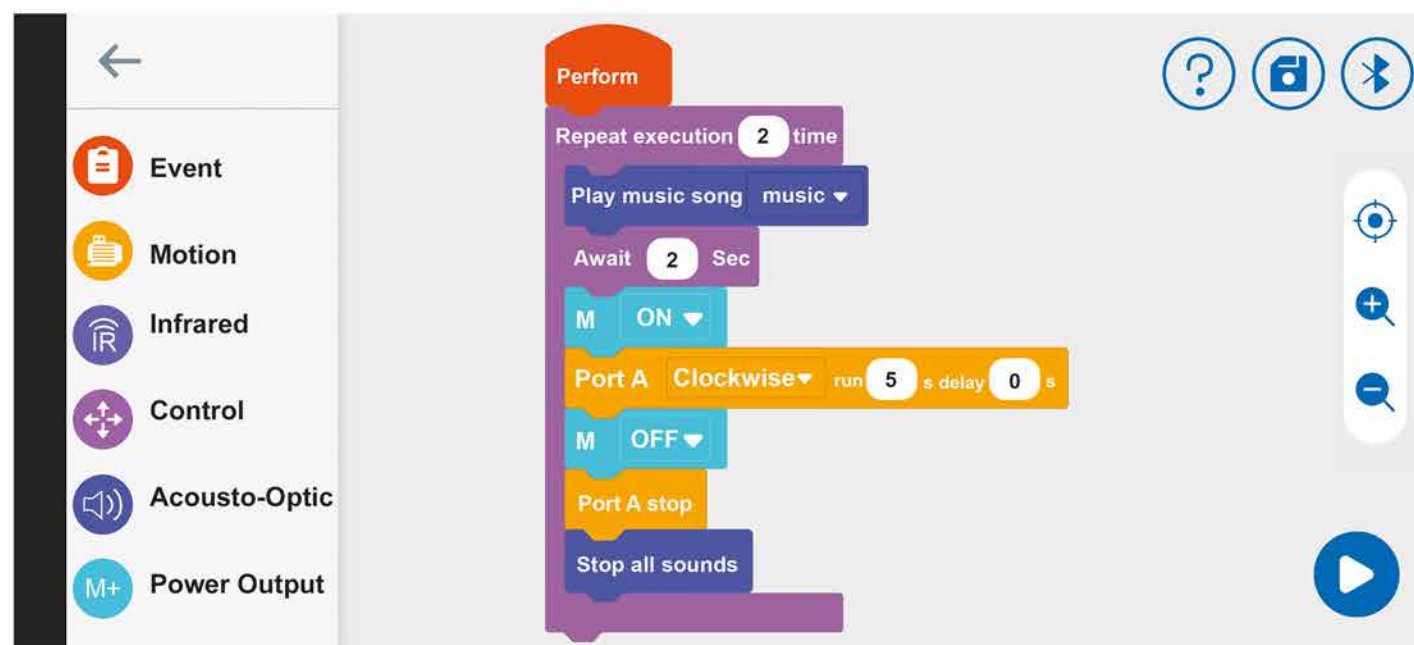
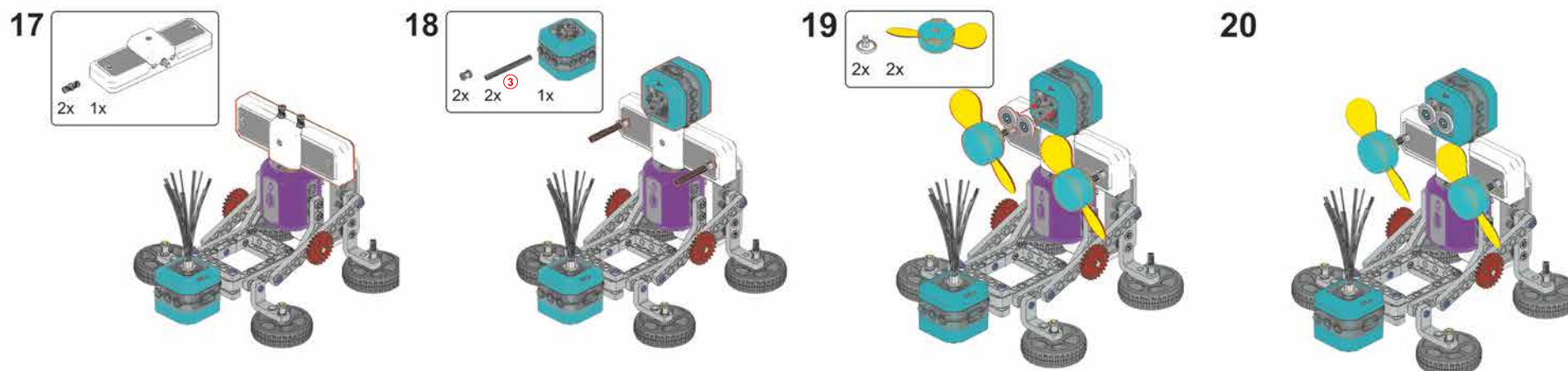
Ověřte správné zapojení kabelů do určených portů.



A LEGO Technic robot, likely a Mindstorms NXT, is shown. It has a blue motor on top, a purple body, and yellow wheels. The robot is equipped with a sensor and a display. It is positioned on a white surface.

1x

Diagram illustrating the assembly of the motor. A purple motor is being attached to the frame using a grey Technic beam and a blue pin. A red arrow indicates the direction of the pin insertion. A blue square with a white '2' is shown above the motor, indicating the step number.



FUNKCE:

Po spuštění se přehraje hudba. Po 2 sekundách zpoždění se rozsvítí barevná světla a roztočí se ventilátor. Po 5 sekundách se všechny funkce vypnou. Celá sekvence se opakuje dvakrát.

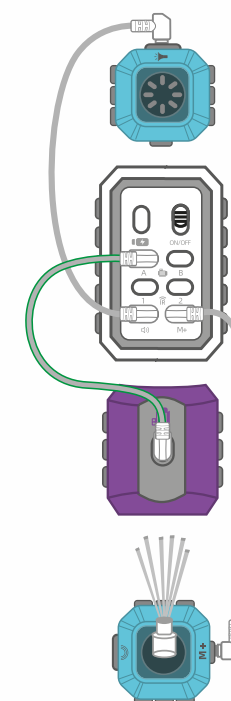
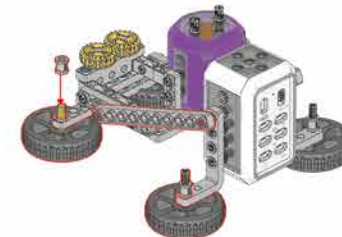
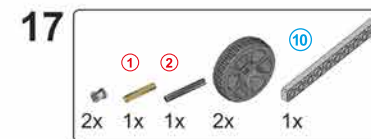
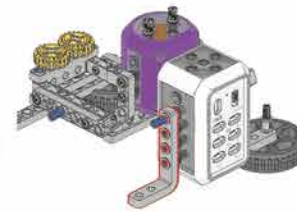
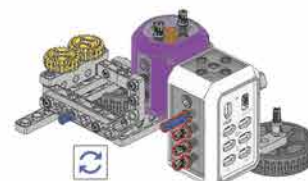
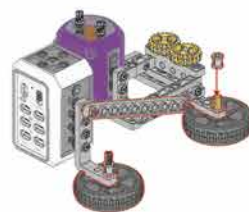
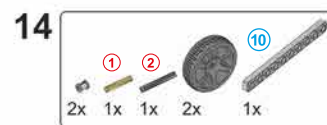
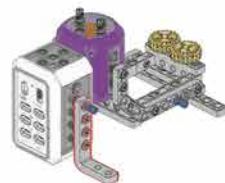
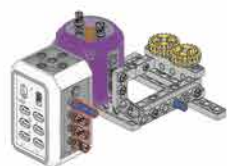
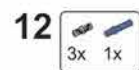
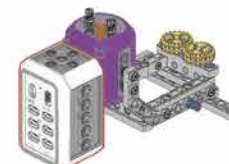
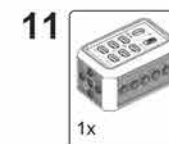
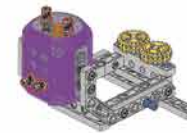
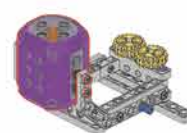
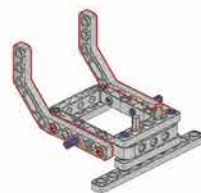
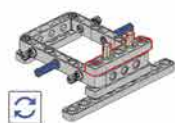
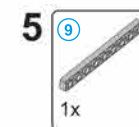
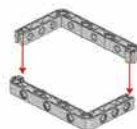
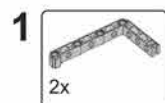
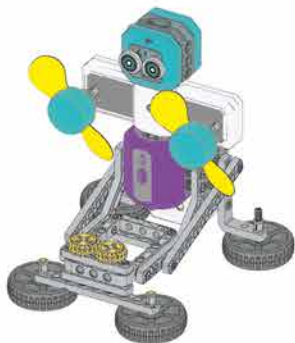
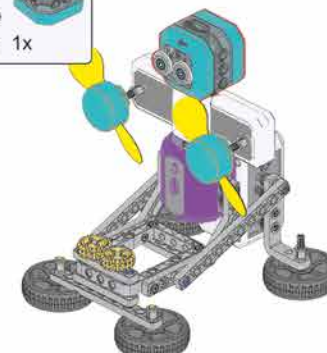
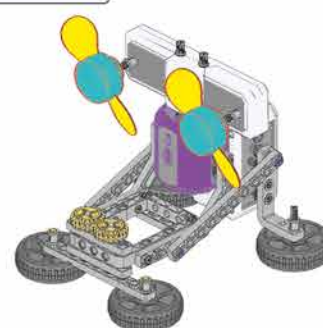
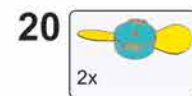
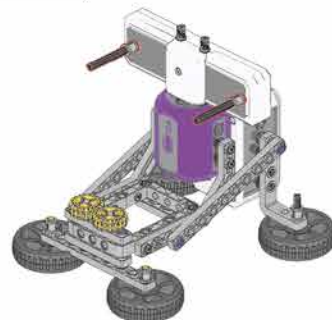
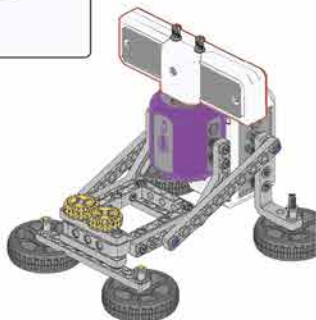
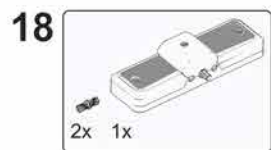


SCHÉMA ZAPOJENÍ

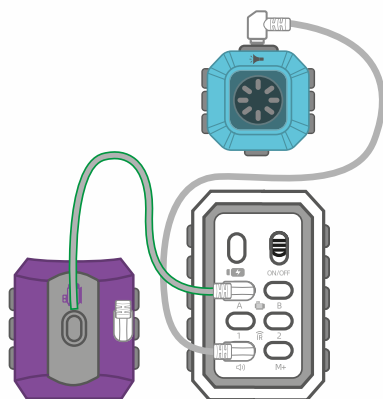
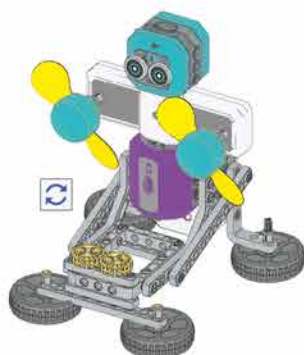
Ověřte správné zapojení kabelů do určených portů.

20. HUDEBNÍ VENTILÁTOR





22



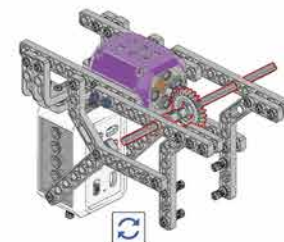
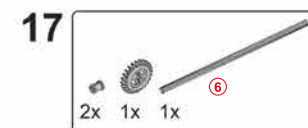
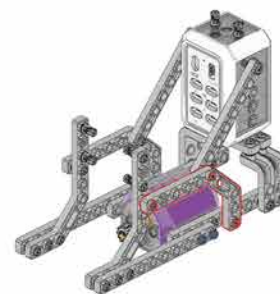
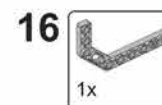
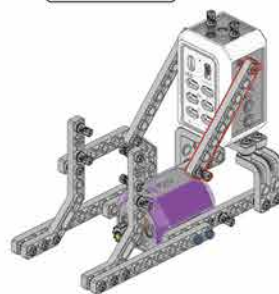
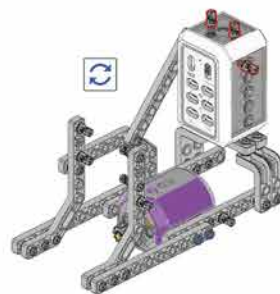
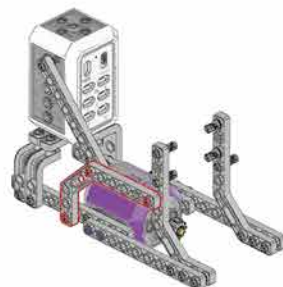
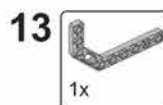
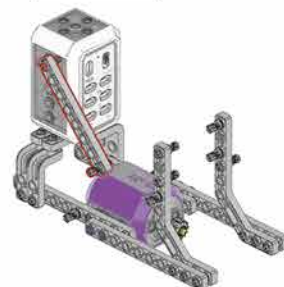
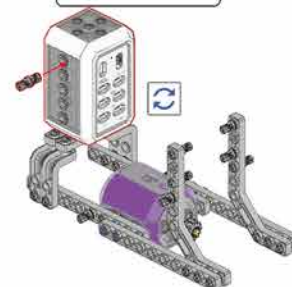
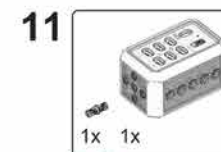
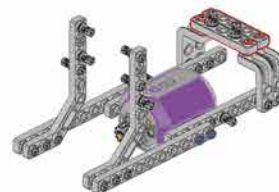
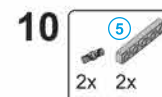
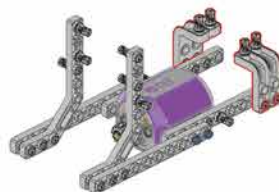
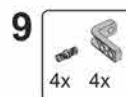
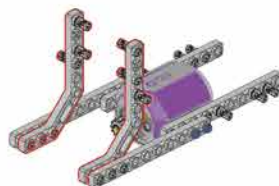
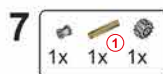
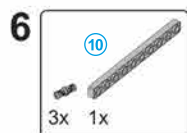
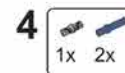
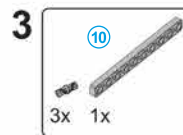
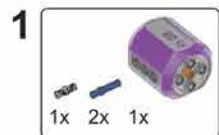
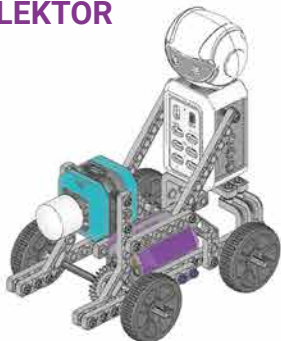
FUNKCE:

Po spuštění se přehraje hudba a ventilátor se roztočí.

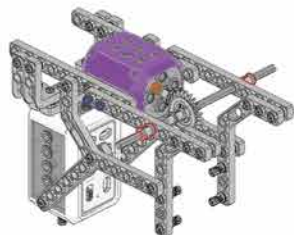
SCHÉMA ZAPOJENÍ

Ověřte správné zapojení kabelů do určených portů.

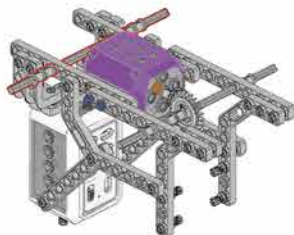
21. INFRAČERVENÝ REFLEKTOR



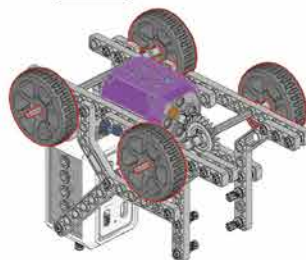
18  2x



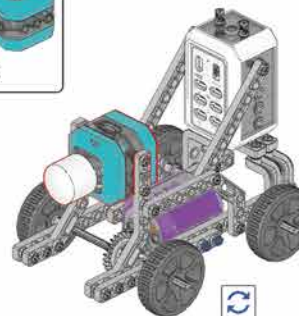
19  4x 1x 



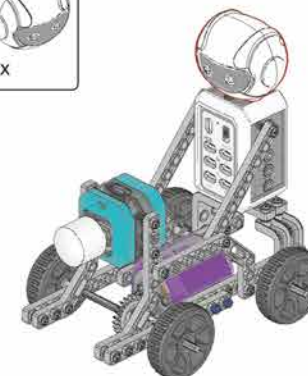
20  4x



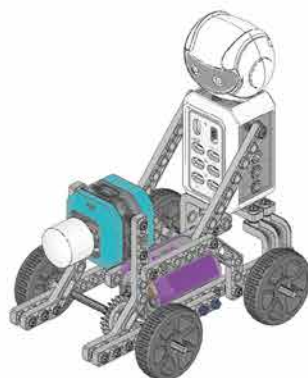
21  1x



22  1x



23



←

-  Event
-  Motion
-  Infrared
-  Control
-  Acousto-Optic
-  Power Output

Perform

Repeat execution

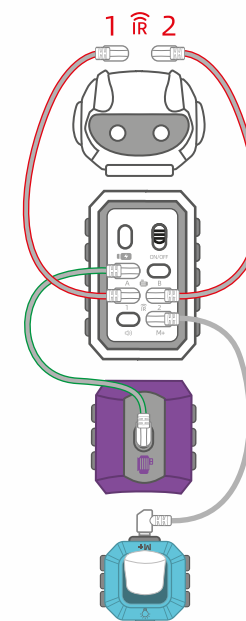
if Infrared sensor detects Obstacles then

M ON

Port A stop

M OFF

Port A Clockwise



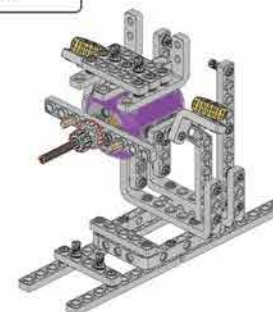
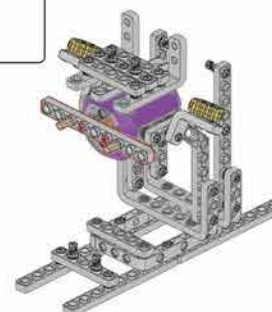
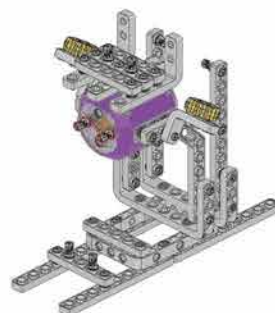
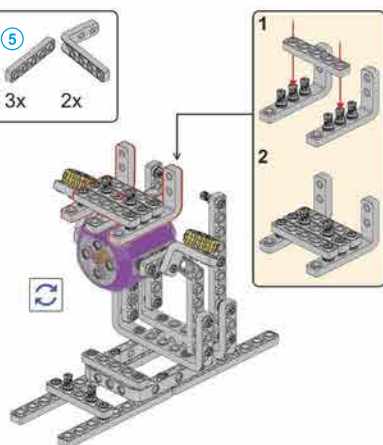
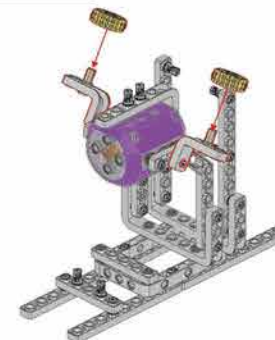
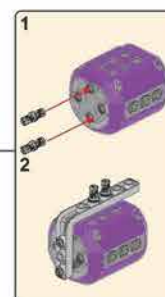
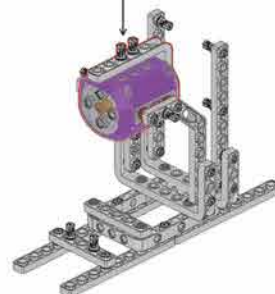
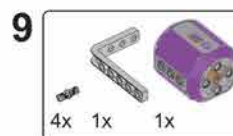
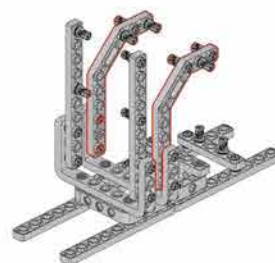
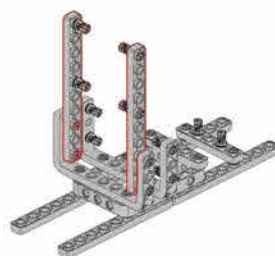
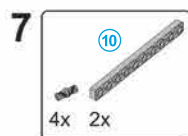
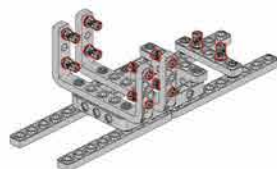
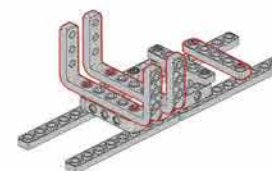
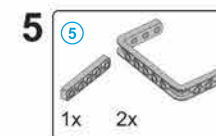
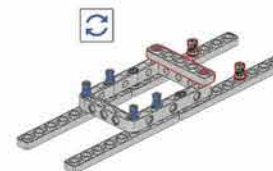
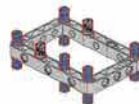
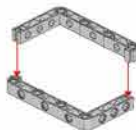
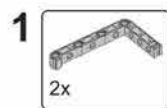
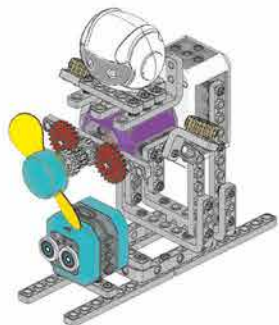
FUNKCE:

Po spuštění se vozidlo pohybuje vpřed. Při detekci překážky se zastaví a rozsvítí se reflektor (searchlight).

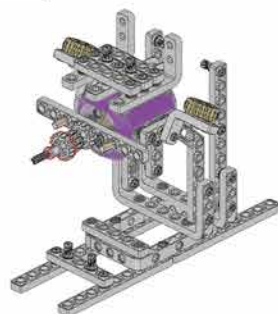
SCHÉMA ZAPOJENÍ

Ověřte správné zapojení kabelů do určených portů.

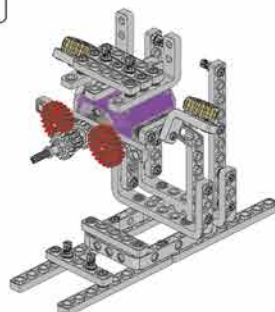
22.INDUKČNÍ HUDEBNÍ VĚTRNÍK

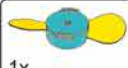


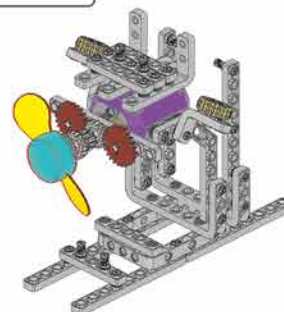
15  1x 1x



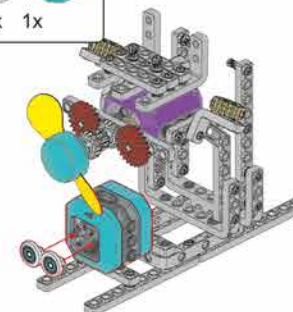
16  2x



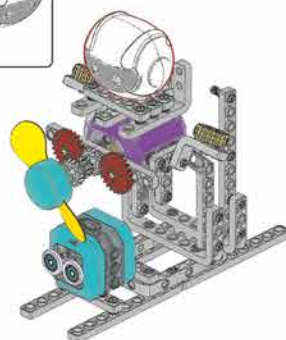
17  1x



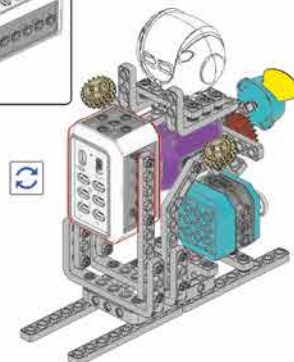
18  2x 1x



19  1x



20  1x



21

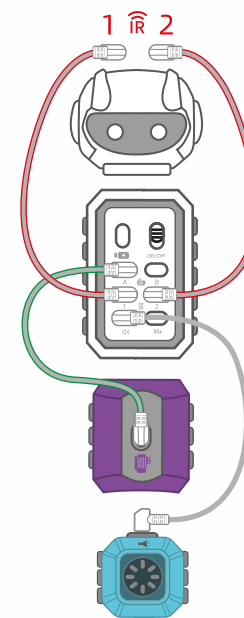
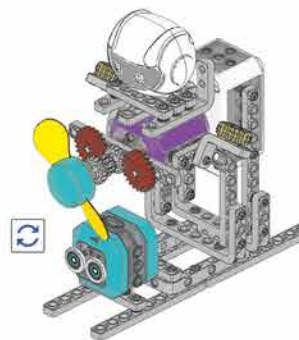


SCHÉMA ZAPOJENÍ

Ověřte správné zapojení kabelů do určených portů.

FUNKCE:

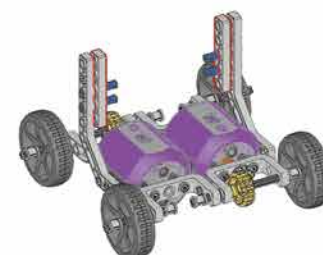
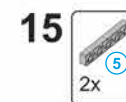
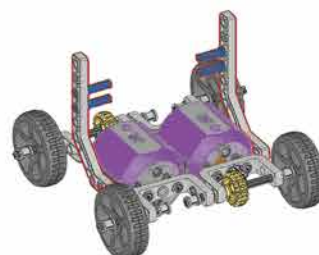
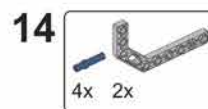
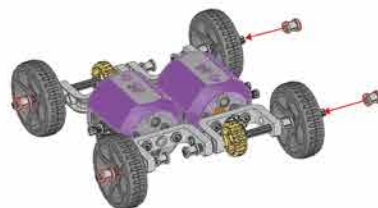
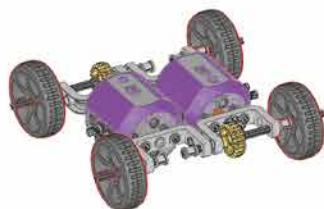
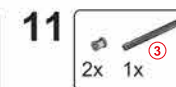
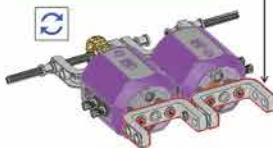
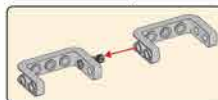
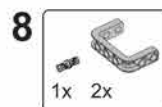
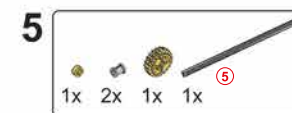
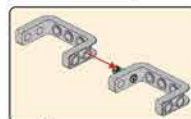
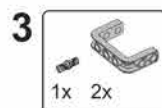
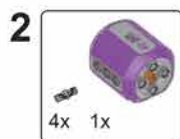
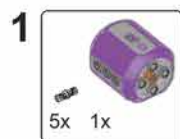
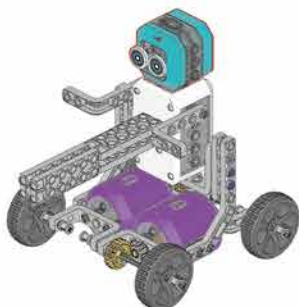
Po spuštění a při detekci objektu infračerveným senzorem se roztočí ventilátor a přehraje hudba. Pokud před senzorem nic není, ventilátor i hudba se vypnou.

The Scratch script is as follows:

```

Perform
Repeat execution
  if Infrared sensor detects Obstacles then
    Play music song music
    Port A Clockwise run 5 s delay 0 s
  Stop all sounds
  Port A stop
  
```

23. TANKOVÉ VOZIDLO



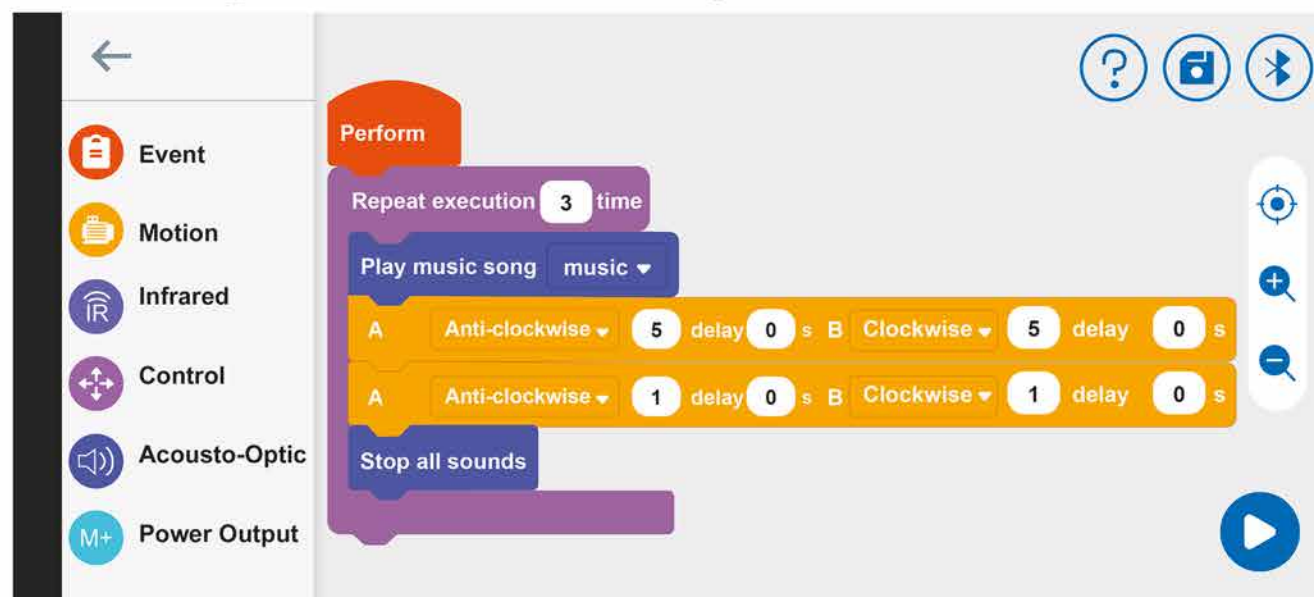
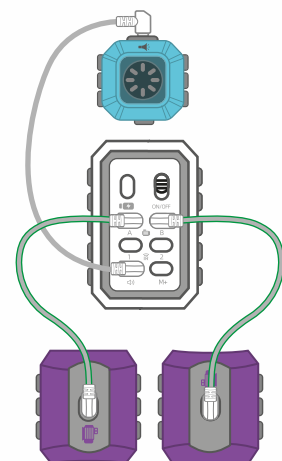
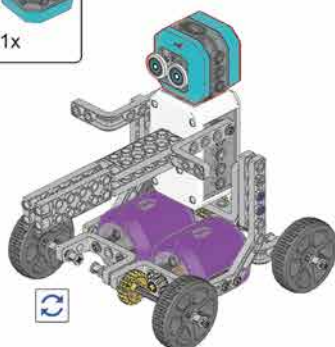
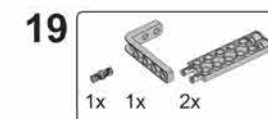
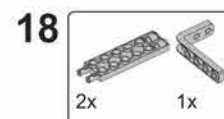
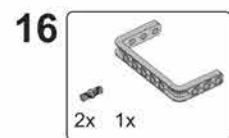


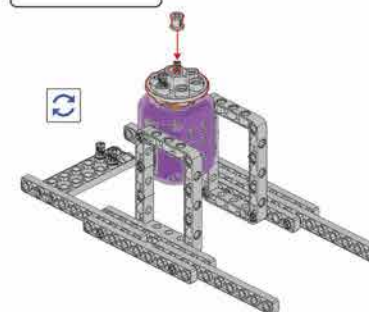
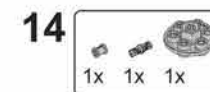
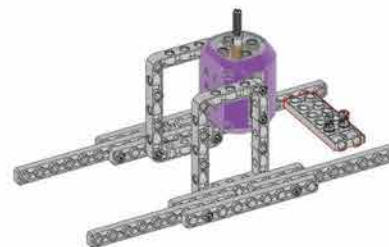
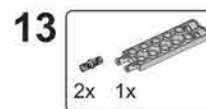
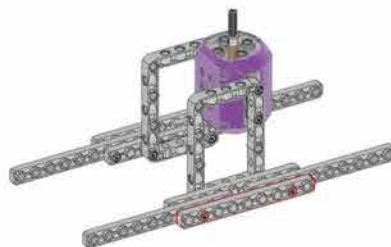
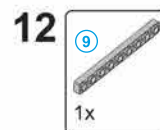
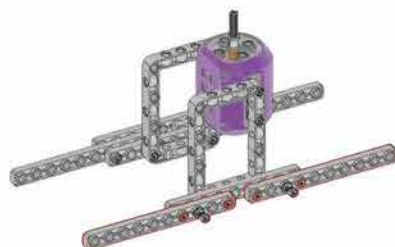
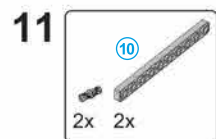
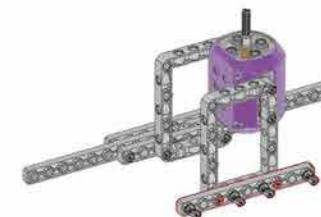
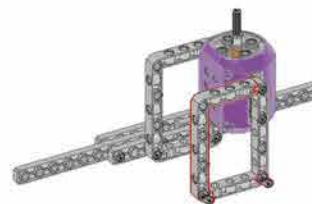
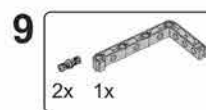
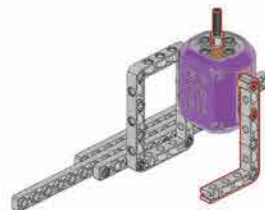
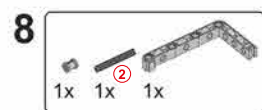
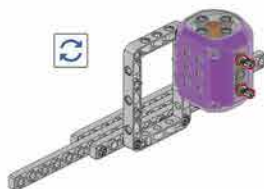
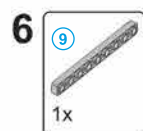
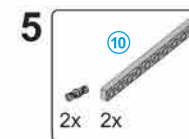
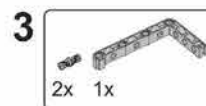
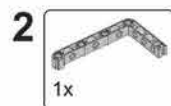
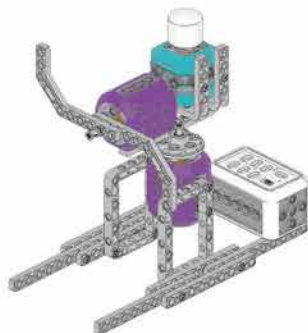
SCHÉMA ZAPOJENÍ

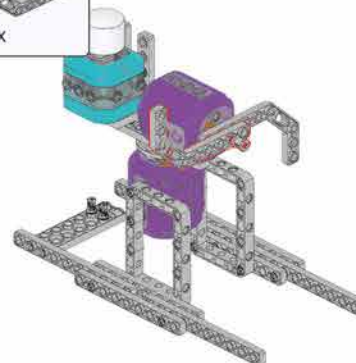
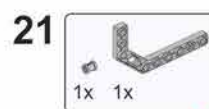
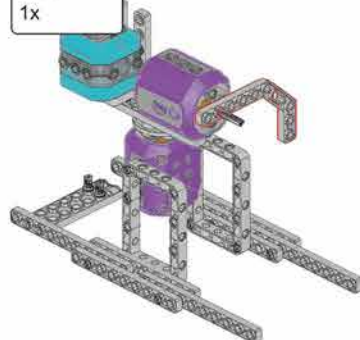
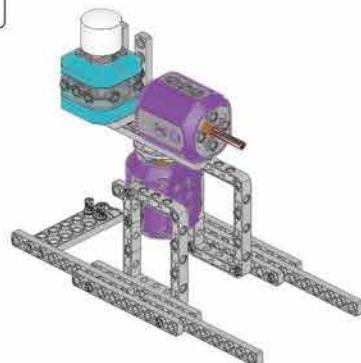
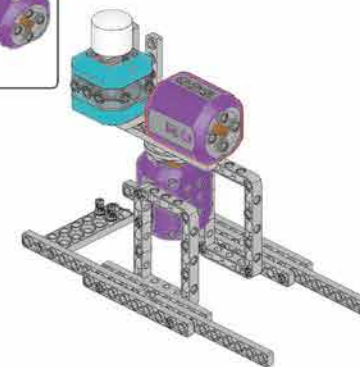
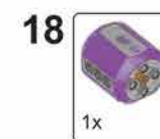
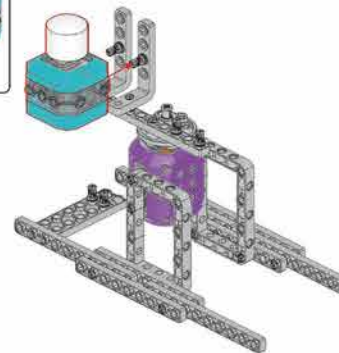
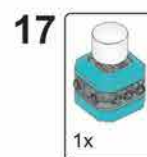
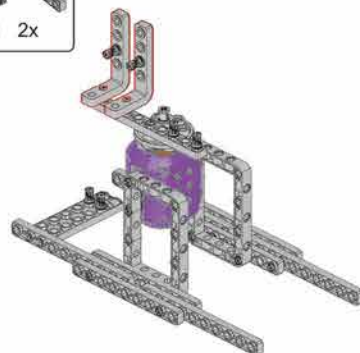
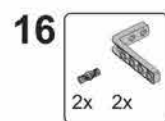
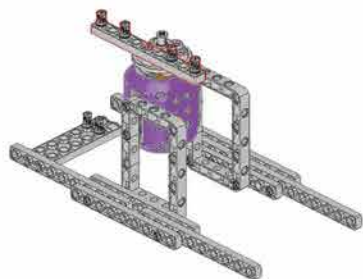
Ověřte správné zapojení kabelů do určených portů.

FUNKCE:

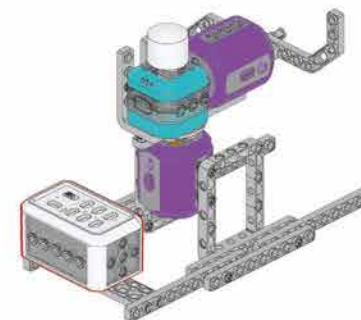
Po spuštění se tank pohybuje určeným směrem, poté automaticky změní směr a opakovaně provádí tuto sekvenci.

24. MECHANICKÝ NAVIJÁK

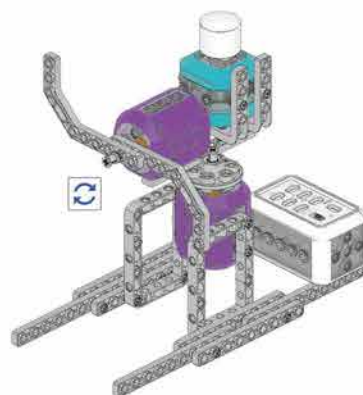


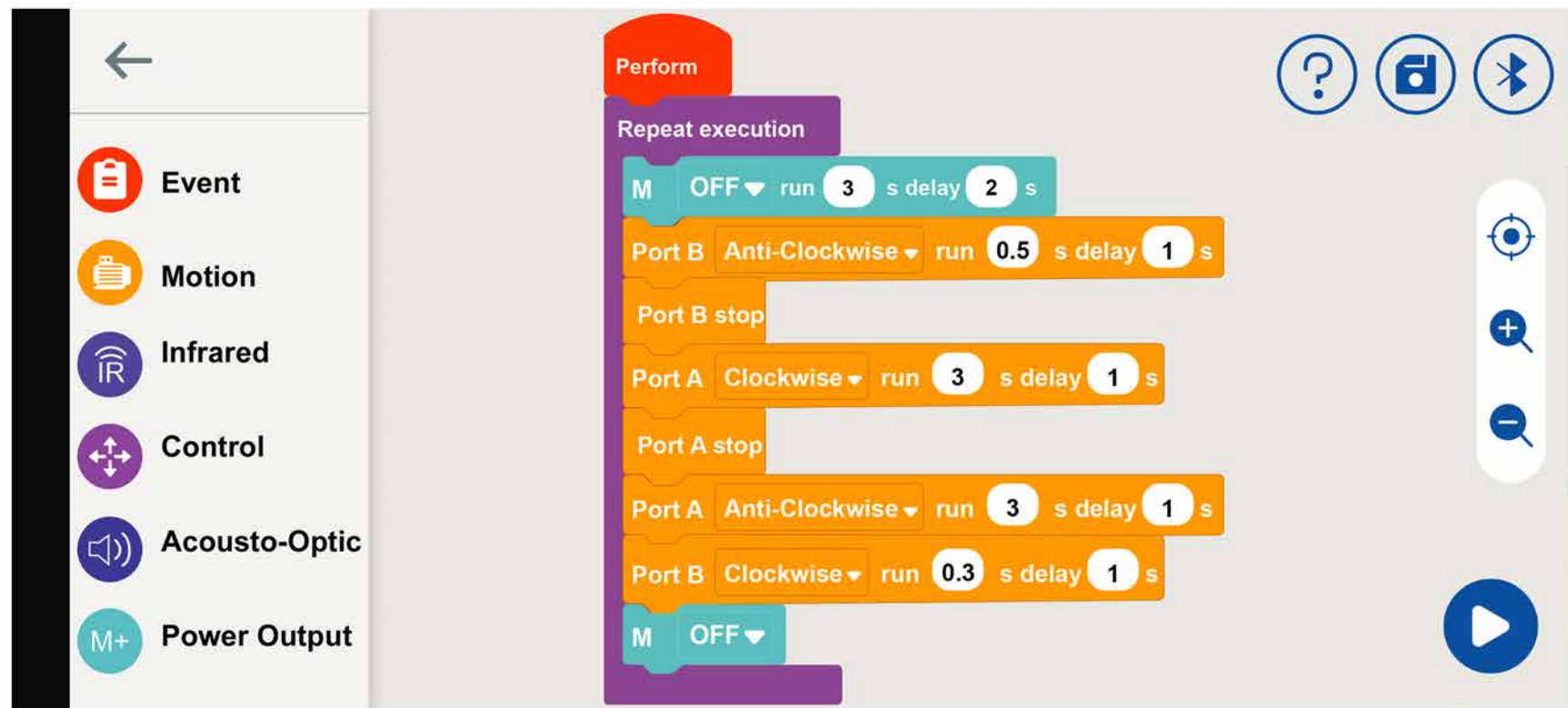


22



23





FUNKCE:

Po spuštění se rozsvítí indikační světlo (zůstane svítit 2 sekundy). Poté se stroj otočí vzad o určitý úhel a zastaví. Současně se spustí míchací (stírací) rameno a začne se otáčet. Po zastavení ramene se stroj otočí vpřed a vrátí se do původní polohy, poté se vypne indikační světlo. Celý proces se třikrát opakuje, poté se provoz zastaví.

SCHÉMA ZAPOJENÍ

Ověřte správné zapojení kabelů do určených portů.

