

PRIMAŠKOLÁK

**CITY**  
**SHAPER**<sup>SM</sup>



KALUMIX

ŽILINA

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## *Content*

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## *The main robot*

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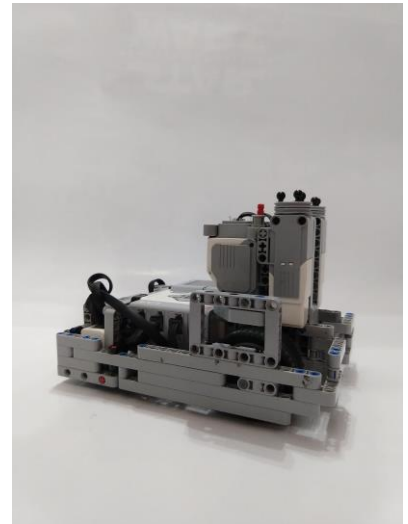
Intendet use:

Composition and use of the robot:

- 1pc Control Unit
  - o Controls the movement of the robot
  - o consists of EV3 cube
  - o power 6pcs AA 1.5V batteries
  - o Programming with LEGO MINDSTORM
  - o LEGO parts
- 2 pcs Small Engine
  - o Moves the attachments
- 2pcs Large Engine
  - o They move the robot
- 2pcs Light Sensor
  - o Use to scan the colors of the substrate
- 1pc Gyro Sensor
  - o Used to level the robot
- Note: The robot and everything associated with it can fit into a small control area for an advantage.



Pic. 1 Front view



Pic. 2 Side view

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## Extension n. 1

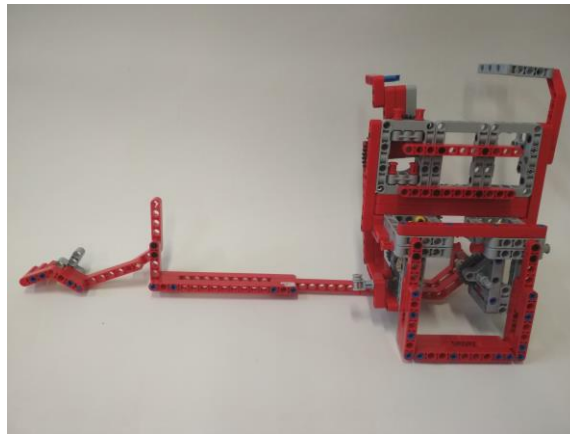
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Composition:

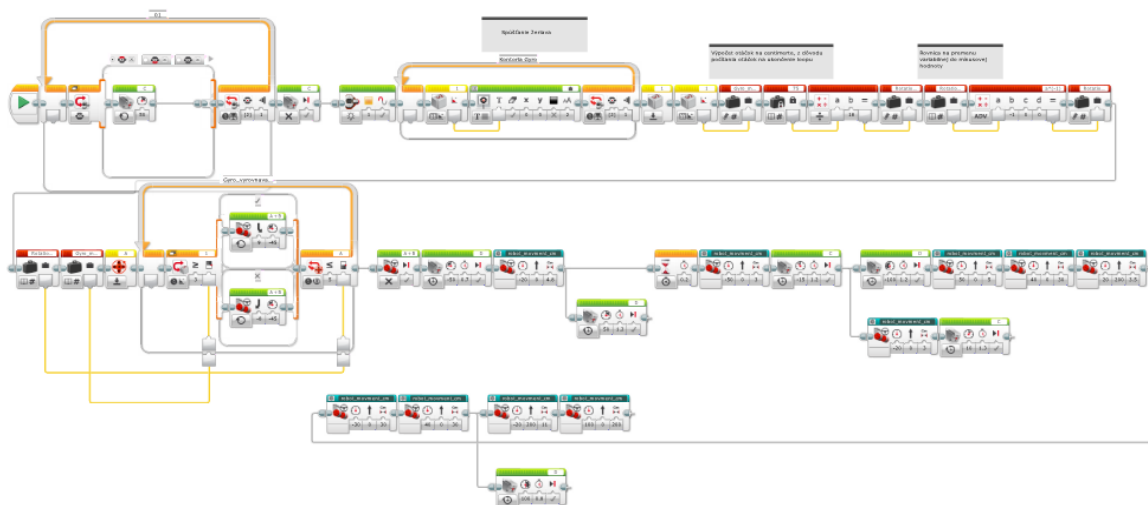
- LEGO components
- Gearbox

Intendet use: This attachment is for missions:

- **Mission 3** (Exploration Drone)
- **Mission 4** (Bat)



Pic. 1.1 front view



Pic. 1.2 Program

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## Extension n. 2

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Composition:

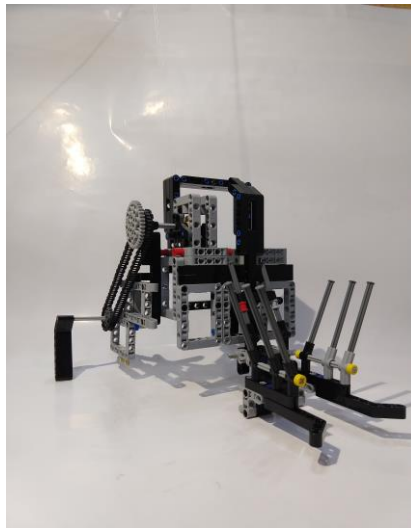
- LEGO components
- gearbox

Intendet use: This attachment is for mission:

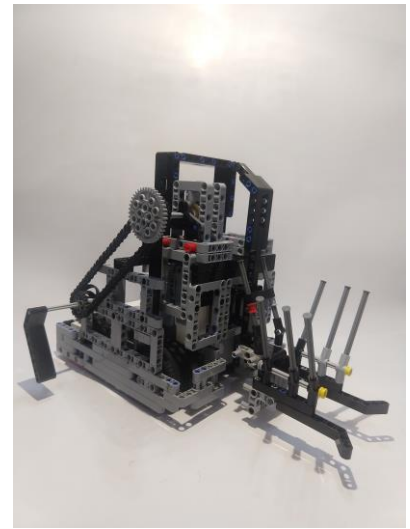
- **Mission 2** (Crane)



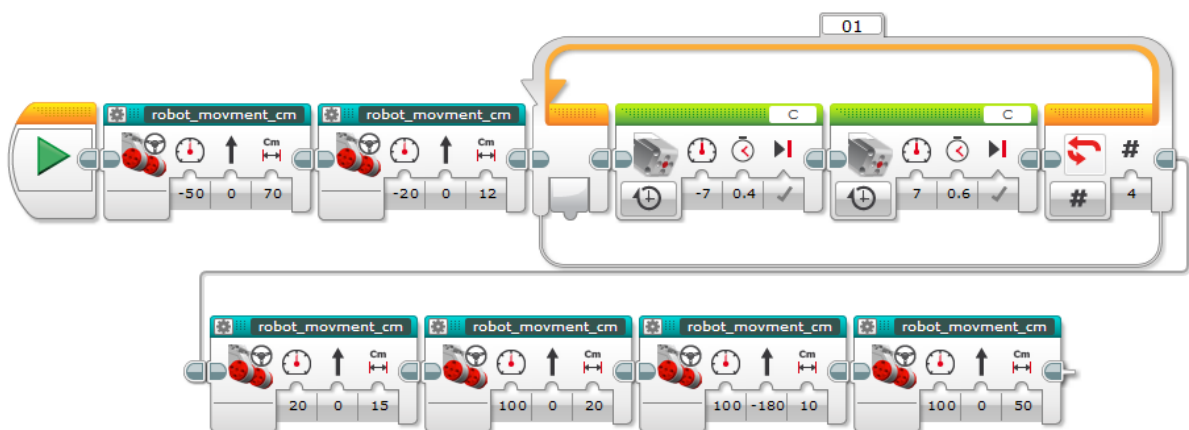
Pic. 2.1 Front view



Pic. 2.2 Side view



Pic. 2.3 View of the robot



Pic. 2.4 Program

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## Extension n. 3

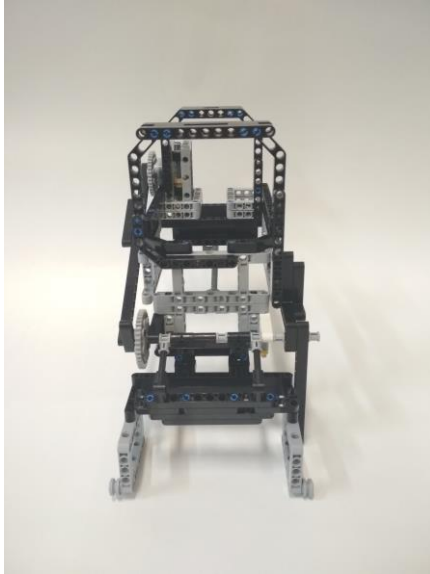
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Composition:

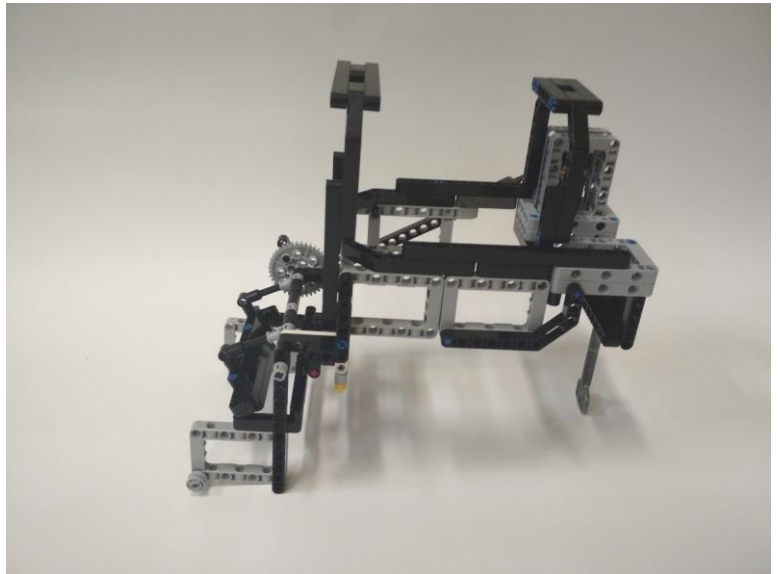
- LEGO components

Intendet use: This attachment is for mission:

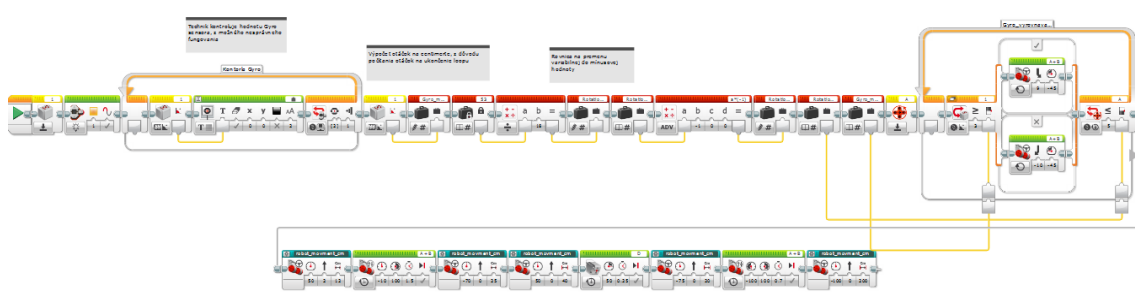
- **Mission 6** ( Traffic jam)



Pic. 3.1 Front view



Pic. 3.2 Side view



Pic. 3.4 Program

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## Extension n. 4

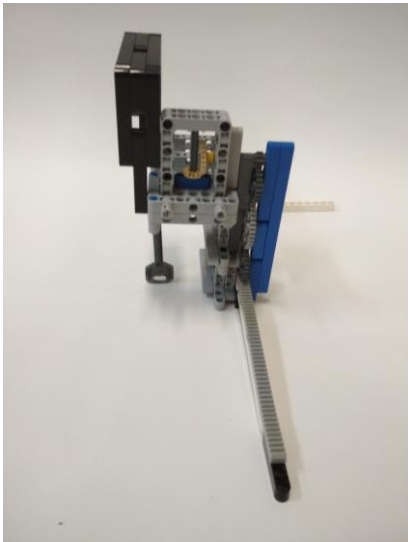
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Composition:

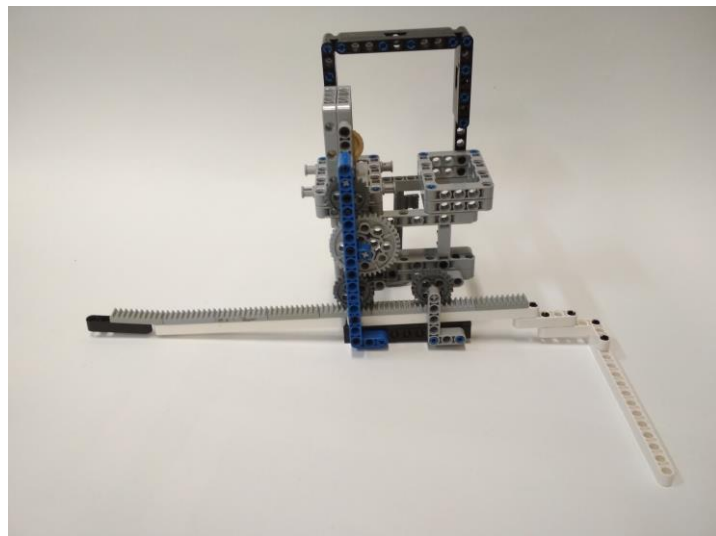
- LEGO components
- Gearbox
- Plastic flexible rod

Intendet use: This extension is for missions:

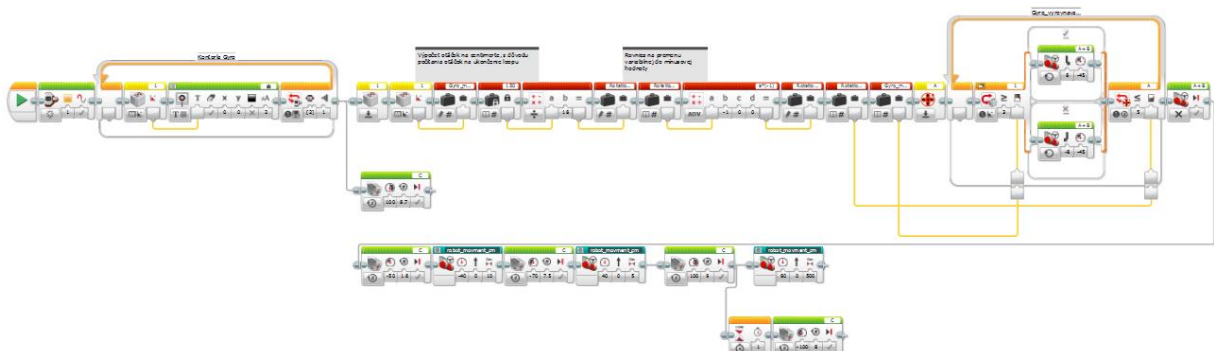
- **Mission 7** (Swing)
- **Mission 9** (Test Building)



Pic. 4.1 Front view



Pic. 4.2 Side view



Pic. 4.3 Program

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## Extension n. 5

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Composition:

- LEGO components
- Auxiliary wheels

Intendet use: This attachment is for missions:

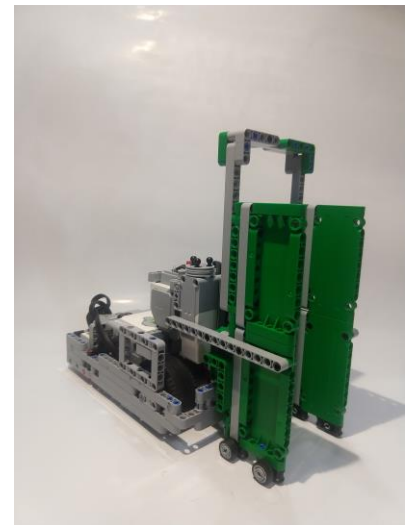
- **Mission 11** (Innovative architecture)
- **Mission 12** (Residential units)
- **Mission 13** (Sustainability Improvements)



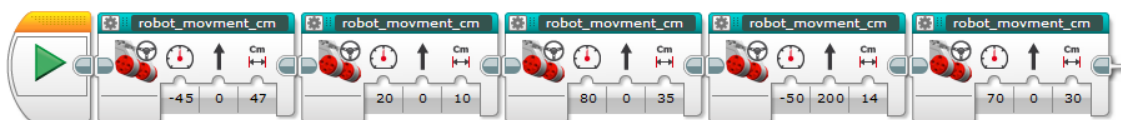
Pic. 5.1 Front view



Pic. 5.2 Side view



Pic. 5.3 View of the robot



Pic. 5.4 Program



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## Extension n. 6

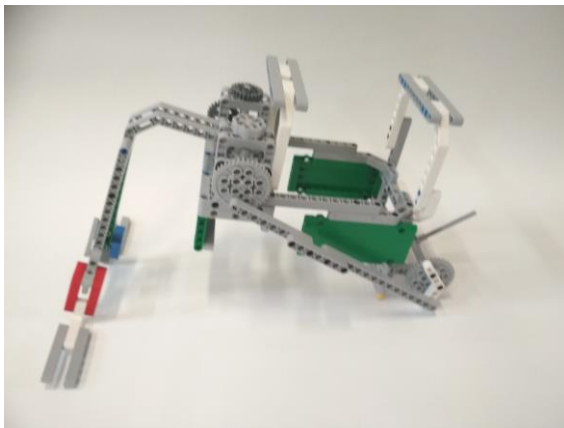
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Composition:

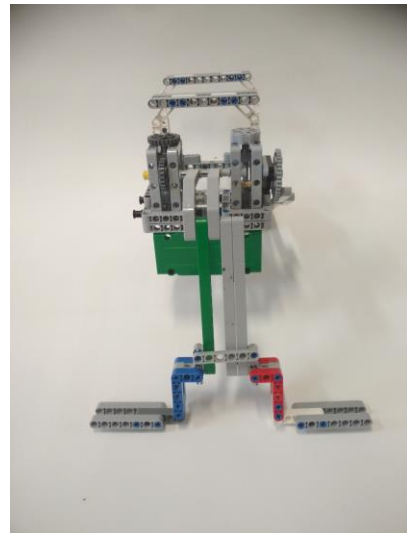
- LEGO components
- Pneumatický piest
- Gearbox
- Touch Senzor

Intendet use: This attachment is for missions:

- **Mission 12** (Residential units)
- **Mission 8** (A lift)
- **Mission 1** (Bridge)



Pic. 8.1 Front view



Pic. 8.2 Side view

