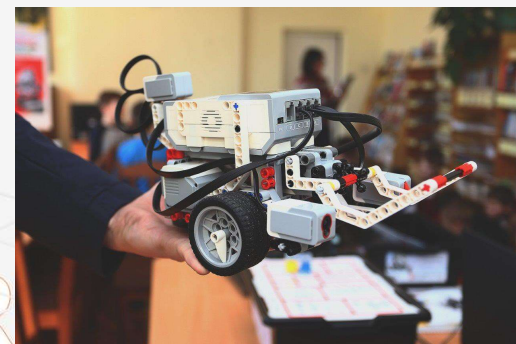
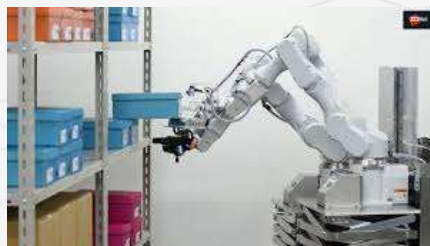
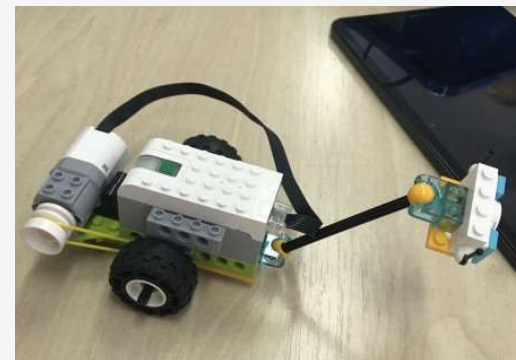


Pasikalbėkime su robotais

Vytautas Barzdaitis, lektorius, VDU



Robotai aplink mus (1)

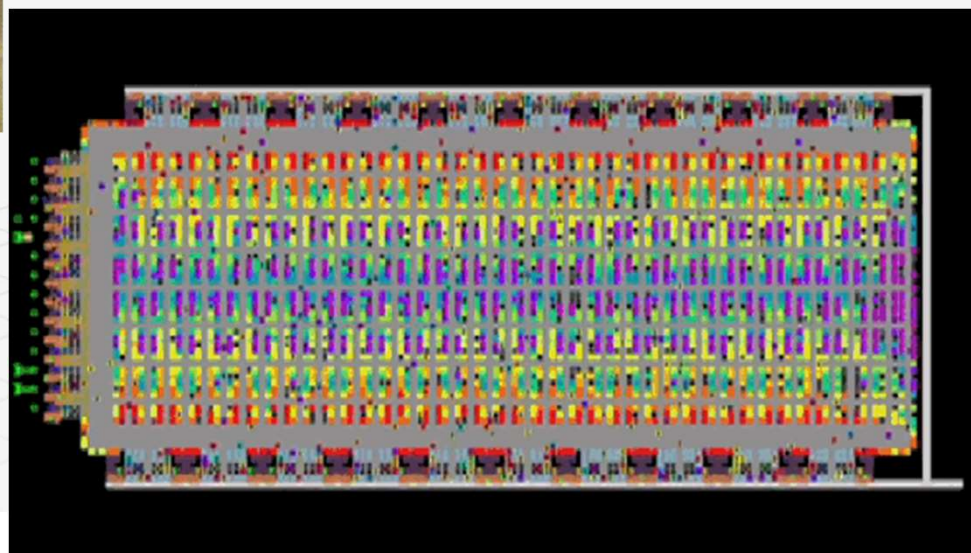


Robotai aplink mus (2)



IFTORINA 2019

Robotai –sandėliuose



Robotai

ligoninėse vaistinėse



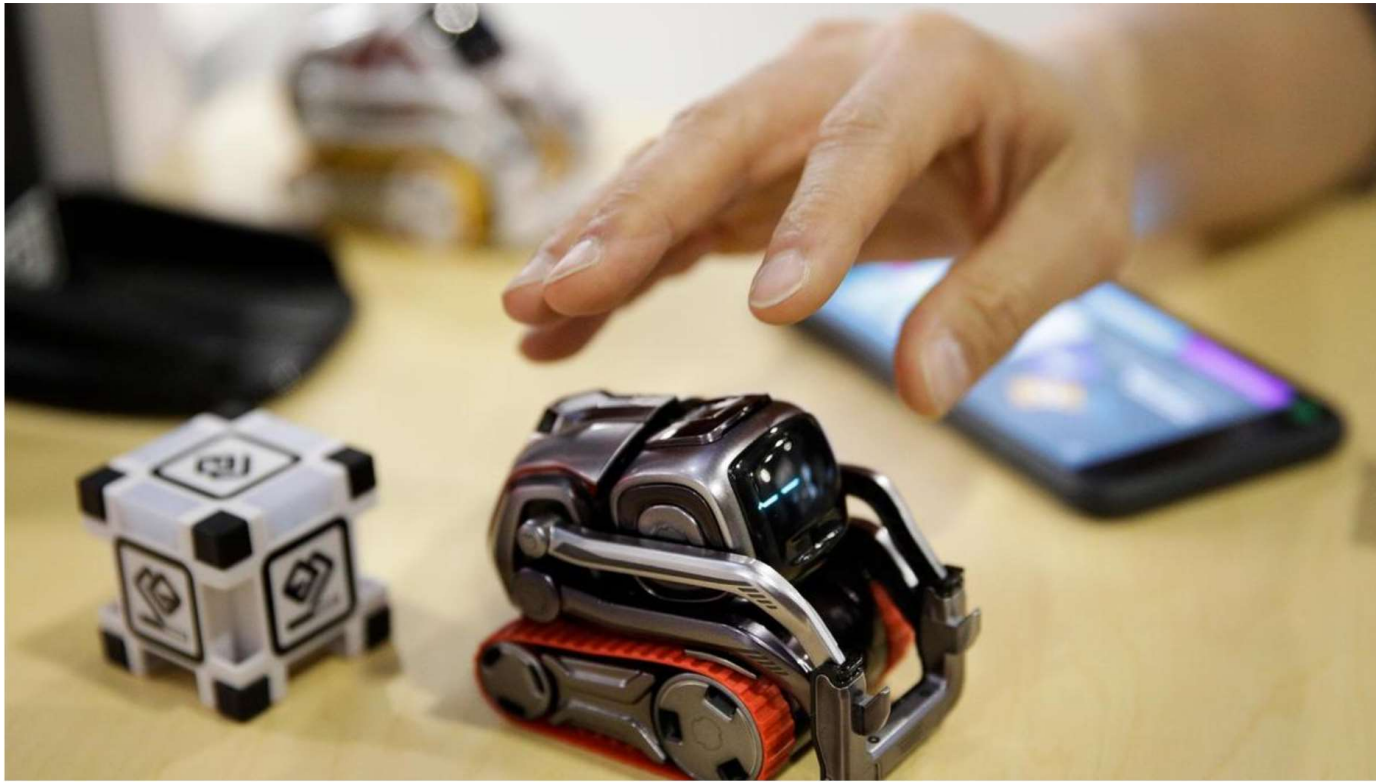
How the robot pharmacist works
at the Dubai Hospital



IFTORINA 2019

Robot revolution to help kids learn coding

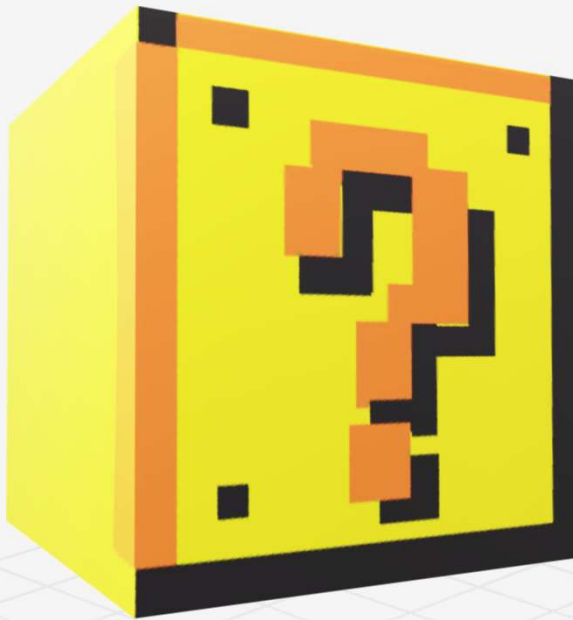
► A look at four coding robots that teach and maybe even entertain that were on display at CES gadget show in Las Vegas



<https://www.thenational.ae/business/robot-revolution-to-help-kids-learn-coding-1.708212>

IFTORINA 2019

Ar mokyklos noriai investuoja į robotus ?



IFTORINA 2019

Asmeninė patirtis Lietuvos mokyklose mokant vaikus

Vaikai sprendžia problemas

Ar vaikam patinka robotai ?

Kaip jie su robotais dirba ?

Komandiškumas/individualumas

Pavyksta/nepavykta

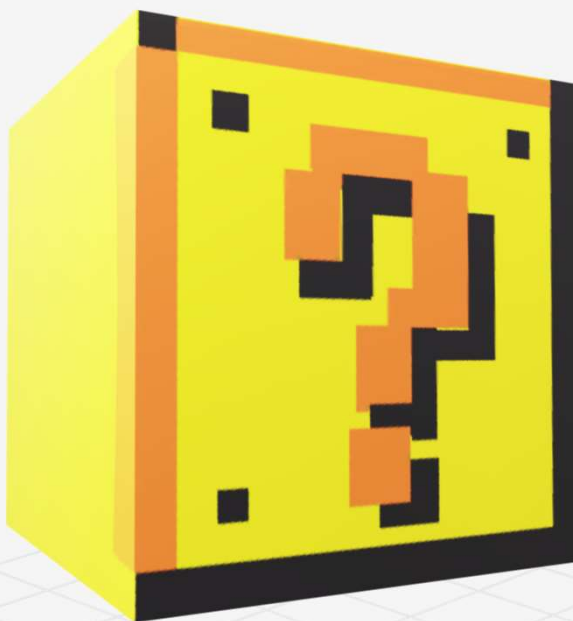
Pyksta / džiaugiasi

Iššūkiai



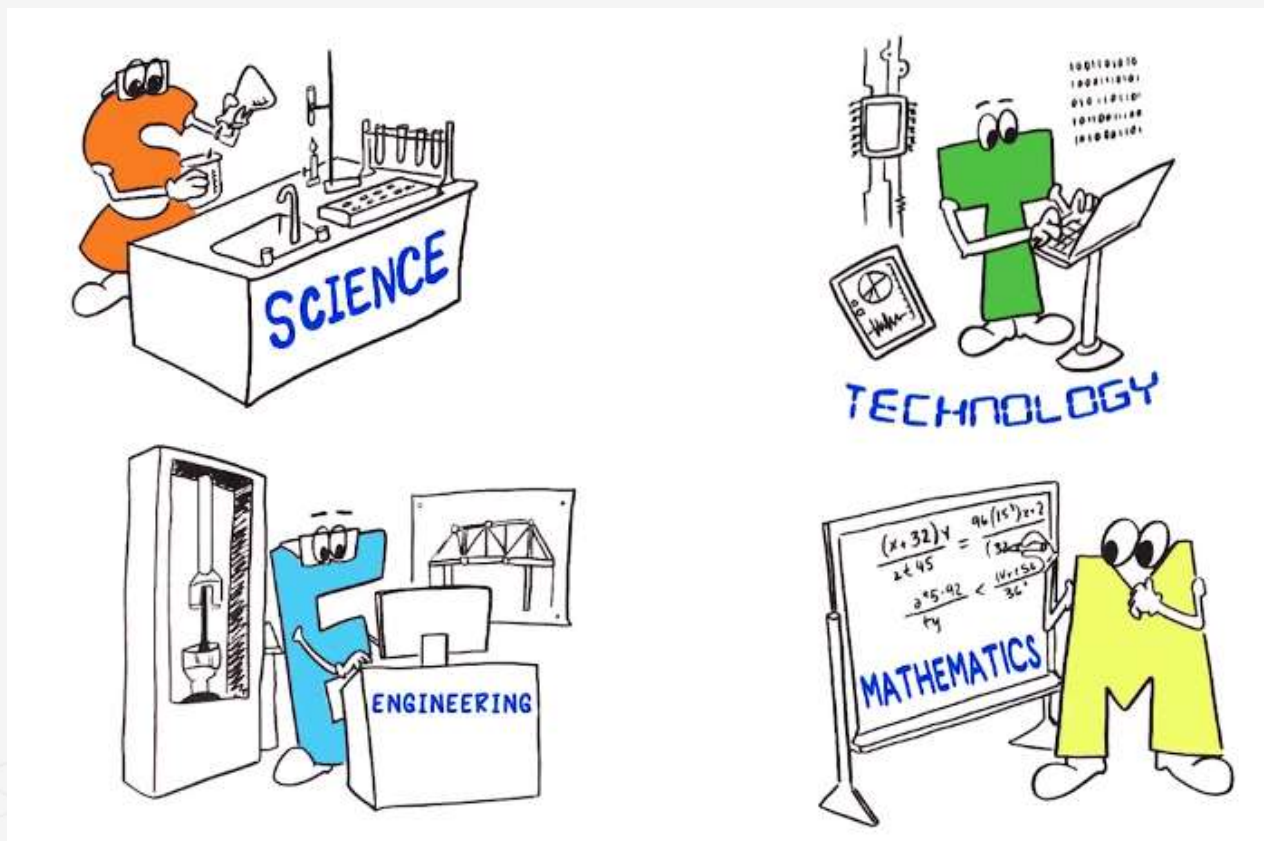
IFIPORINA 2019

Kokia jūsų patirtis ?



IFTORINA 2019

Populiarus žodis STEM



IF FORKINA 2019

roboraštingumas ?

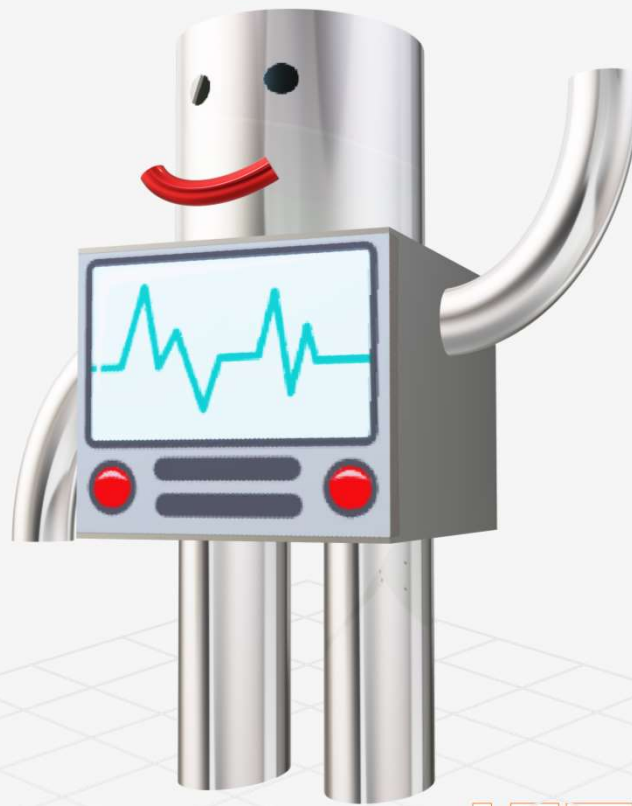
Countries with the most industrial robots per 10,000 employees:

Rank	Country	Number of robots
1	South Korea	631
2	Singapore	488
3	Germany	309
4	Japan	303
5	Sweden	223
6	Denmark	211
7	United States	189
38	Estonia	11
42	Russia	3
43	Philippines	3
44	India	3

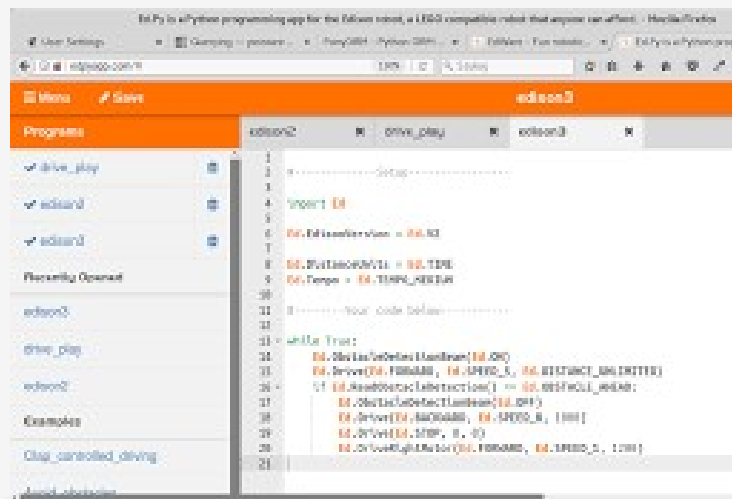
15	Finland	138
13	Slovenia	137
17	Slovakia	135
18	France	132
19	Switzerland	128
20	Czech Republic	101
21	Australia	83
22	United Kingdom	71
23	China	68
24	Portugal	58

<https://ceoworld.biz/2018/03/14/countries-with-the-most-industrial-robots-per-10000-employees-2018-report>

neLEGO Robotai ir jų programavimas



IFTORINA 2019

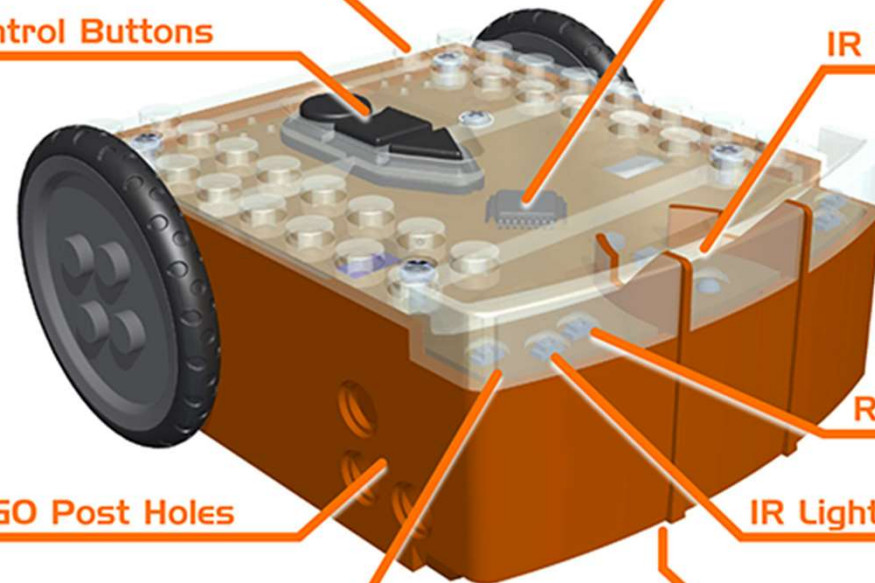


Sounder/Sound Sensor

Control Buttons

Microcontroller

IR Light Receiver



Red LED Lights

IR Light Transmitters

Line Tracking Sensor

LEGO Post Holes

Light Sensors

Edison robot programming languages



EdBlocks

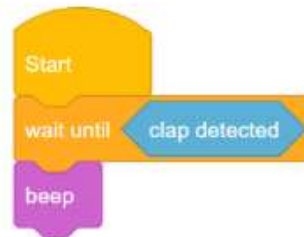
EdBlocks is a fully icon-based robot programming language that is super easy to use. A drag-and-drop block-based system, EdBlocks is intuitive and fun, even for younger users. Perfect for introducing anyone to programming, EdBlocks is ideal for students aged 7+ years old.

Check out EdBlocks

EdScratch

EdScratch is a vertical block-based visual programming language based on Scratch. EdScratch combines the ease of drag-and-drop programming with powerful functionality and versatility. The result is a robot programming language that is easy to learn and offers a robust platform for computer science education for students 10+ years old.

Check out EdScratch



EdPy

EdPy is a highly versatile text-based programming language based on Python. EdPy makes text-based programming fun by letting students see their code come to life in their Edison robot. With EdPy, students are learning the core of a real programming language and are able to take their exploration of robotics and coding to a more advanced level — perfect for students 13+ years old.

Check out EdPy

```
#-----Your code below-----  
while true:  
    Ed.LeftLed(Ed.ON)  
    Ed.TimeWait(1, Ed.TIME_SECONDS)  
    Ed.LeftLed(Ed.OFF)  
    Ed.TimeWait(1, Ed.TIME_SECONDS)
```



www.meetedison.com

programavimas

Programavimas internete:

EdBlocks:

<https://www.edblocksapp.com>

EdScratch:

<https://www.edscratchapp.com>

EdPy:

<http://www.edpyapp.com>

TORINA 2019

meetedison

www.meetedison.com



IFTORINA 2019



Stimulate your children's brain
ROBOTIS PLAY



Learn&Play with All Robots
ROBOTIS DREAM II



ROS Official Platform
TURTLEBOT3

ROBOTIS

We Provide Creativity



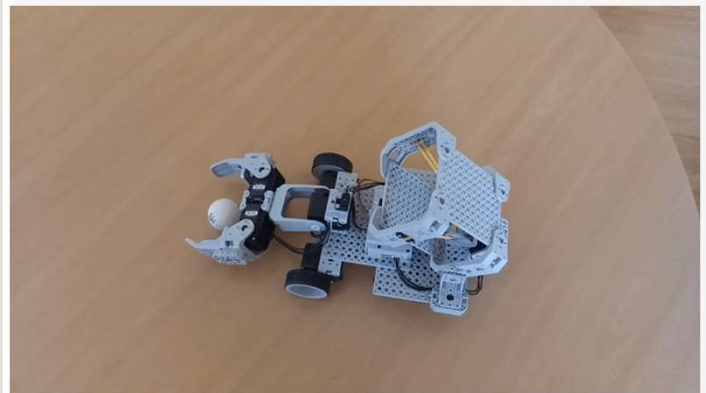
3D Printable&Programmable Kit
ROBOTIS MINI



The Evolution Continues
ROBOTIS PREMIUM

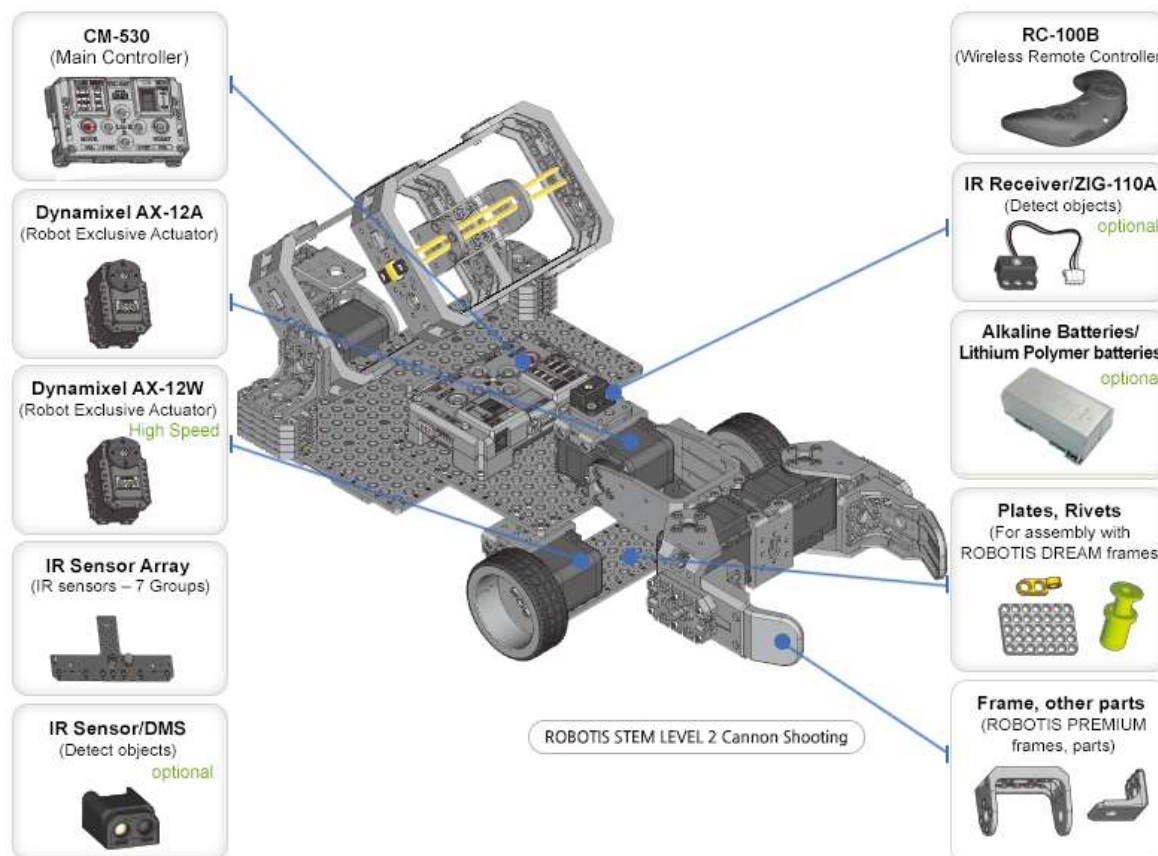


Humonoid Robot Platform
ROBOTIS OP3



TORINA 2019

komponentai



programavimas



	RoboPlus 2.0	RoboPlus 2.0 includes the following individually-downloadable programs: R+ Manager 2.0, R+ Task 2.0, R+ Motion 2.0, R+ Design, and R+ Scratch. For details on programs please visit the RoboPlus 2.0 page.	ROBOTIS PLAY300 ROBOTIS PLAY700 ROBOTIS DREAM II ROBOTIS MINI	MX (2.0), X, PRO
	RoboPlus Mobile	ROBOTIS Applications for smart devices. RoboPlus Mobile includes: R+ m.Design, R+ m.Task 2.0, R+m.Motion 2.0, and the ROBOTIS MINI app. For details on programs please visit the RoboPlus Mobile page.	ROBOTIS PLAY300 ROBOTIS PLAY700 ROBOTIS DREAM II ROBOTIS MINI	MX (2.0), X

IFTORINA 2019

 R+ Manager 2.0	R+ Manager 2.0 provides an easy way to configure firmware settings and update/recover firmware for compatible DYNAMIXELs, ROBOTIS controllers, and peripheral devices.	2.0.1 Windows (.exe)	ROBOTIS DREAM II ROBOTIS MINI DYNAMIXELs: MX-Series X-Series PRO-Series
 R+ Task 2.0	R+ Task 2.0 is a user-friendly graphical programming tool which requires minimal coding experience. Task 2.0 can be used to create programs to download to ROBOTIS controllers.	2.0.43 Windows (.exe) 2.3.0 MAC OS X (.dmg) * *Mac Installation Guide	ROBOTIS PLAY700 ROBOTIS DREAM II ROBOTIS MINI ROBOTIS PREMIUM ROBOTIS OP
 R+ Motion 2.0	R+ Motion 2.0 is an improved 3D motion-editing and choreography software which allows users to create and save motions to download to ROBOTIS controllers. Downloaded motions can be used in Task 2.0 programs.	2.3.1 Windows (.exe) 2.4.12 MAC OS X (.dmg) * *Mac Installation Guide	ROBOTIS MINI ROBOTIS STEM ROBOTIS PREMIUM
 R+ Design	R+ Design is an interactive 3D assembly guide for ROBOTIS kits and example figures. Users can		ROBOTIS PLAY (.zip) ROBOTIS DREAM II
 R+ Scratch	 R+ Scratch	R+ Scratch is a helper program designed to integrate the Scratch 2.0 educational programming language with the ROBOTIS PLAY700 and ROBOTIS DREAM II kits. (Requires Scratch2Offline to be installed)	

Rinkinys 3

fischertechnik to



IFTORINA 2019

STEM Kits (10)



STEM Robotics (11)



STEM Sets (2)



fischertechnik 
education

3D Printer Set (17)



Training models (18)



Additions (7)



Available Product Variants

Products (65)

IFTORINA 2019

programavimas

ROBOPro Light
(Nemokamai)

ROBOPro
Viena licensija

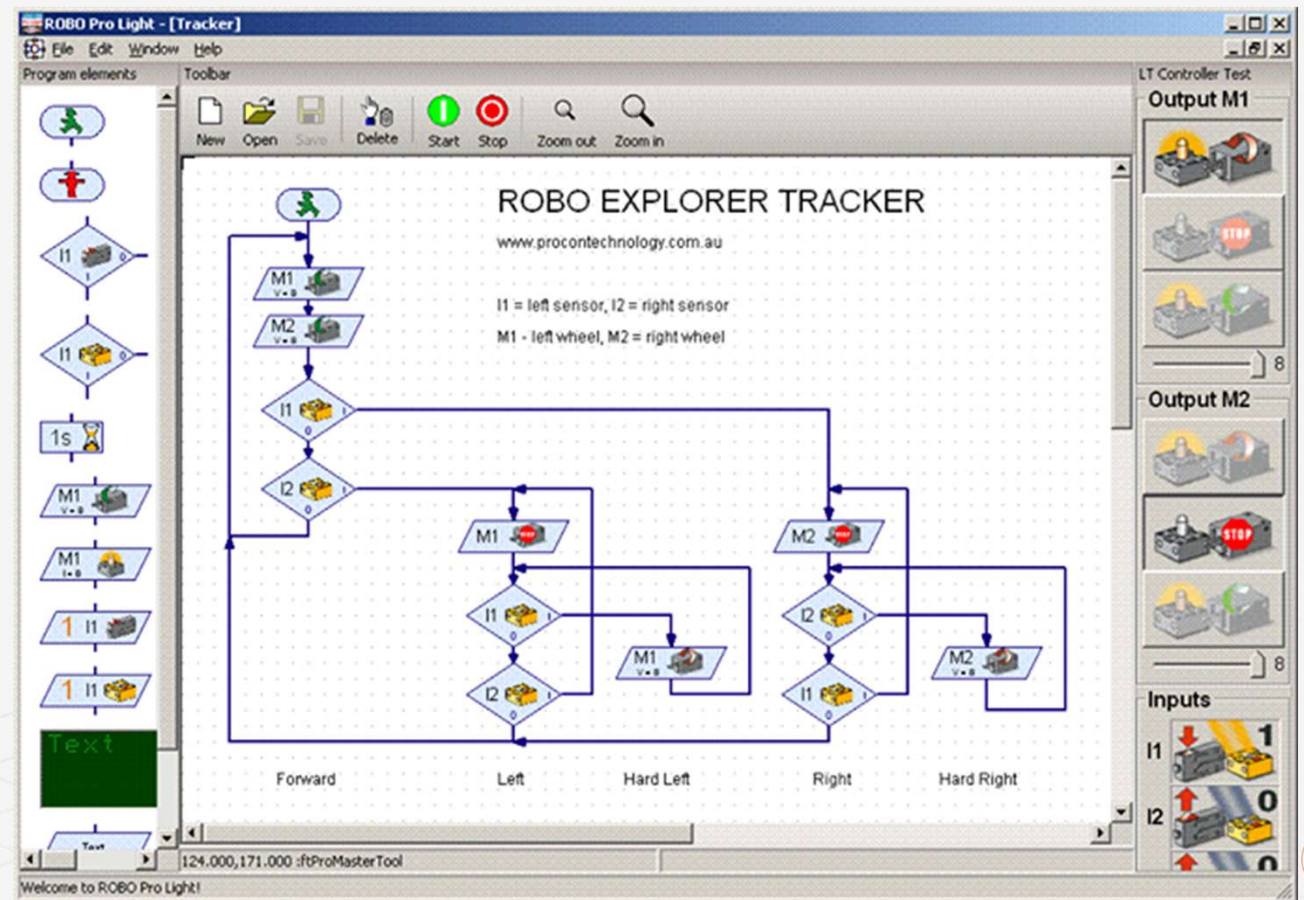
\$36.00

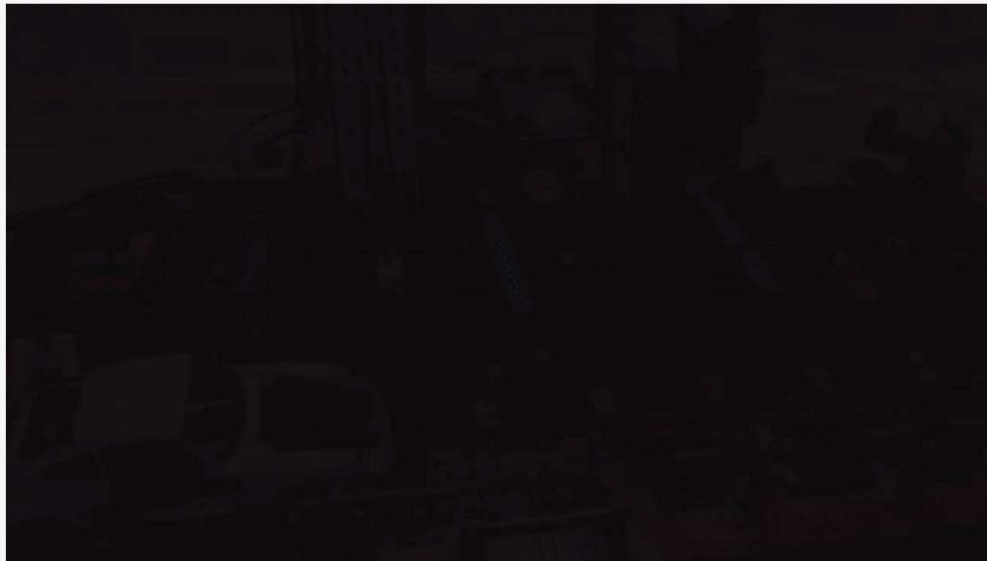
Add to Cart

Mokyklos licensija

\$120.00

Add to Cart





Robotics Sensor Station IoT Set



ROBO Pro Software - Education



ROBOTICS TXT Controller - Education



Robotics & Electropneumatics



Robotics in Industry



Robotics Competition Set



STEM PREP



STEM Engineering



3D Printer - Education



EDUSHOP.LT

BANDYK PIRK ŽAISK

EDULAND

KURK ŽAISK IŠMOK



SW for STEAM Education

ByScratch

A FREE graphical programming learning software. It makes interact with Byrobot Drones easily.

[\[Available Drone\]](#)

[Drone Fighter edu. / Petrone V2 professional](#)

- A Graphical Programming Platform
- Simple Way to Code with Byrobot Drones
- Learning Game That Teaches Kids to Code



[Learn more](#)

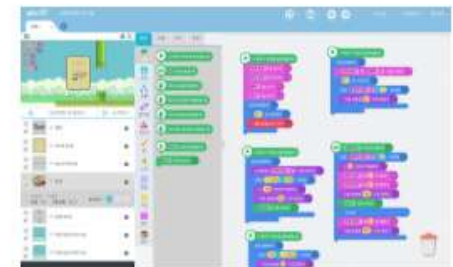
Entry

A FREE graphical programming learning software. It not only can create funny stories, games and animations easily, but also interact with Byrobot Drones.

[\[Available Drone\]](#)

[Drone Fighter edu. / Petrone V2 professional](#)

- A Graphical Programming Platform
- Simple Way to Code with Byrobot Drones
- Learning Game That Teaches Kids to Code



[Learn more](#)



PETRONE

All parts are modular in a simple structure



PETRONE 2.0

Free Program for Drone coding



PETRONE V2 professional

High Quality Courses & Resources



EDULAND



KURK

ŽAISK

IŠMOK

BUT

EDULAND

Edulandas - inovatyvių būrelių platforma

organizuotos vaikų vasaros dienos stovyklos

Kol kas vykdoma veikla – Kaunas

Apskaitos, logistikos ir metodinės medžiagos sistema.

Numatyta plėtra ir į kitus Lietuvos miestus

Plečiamas paslaugų krepšelis

Edulandas kviečia prisijungti mokytojus ()

Ieško atsovų įvairiuose miestuose: mokylose, bibliotekose, etc.

IFTORINA 2019

Kvietimas prisijungti dalyvauti MATE
projekte:

<http://mate.wsei.eu/lt>

vesta.matulaityte@vdu.lt

IFTORINA 2019