

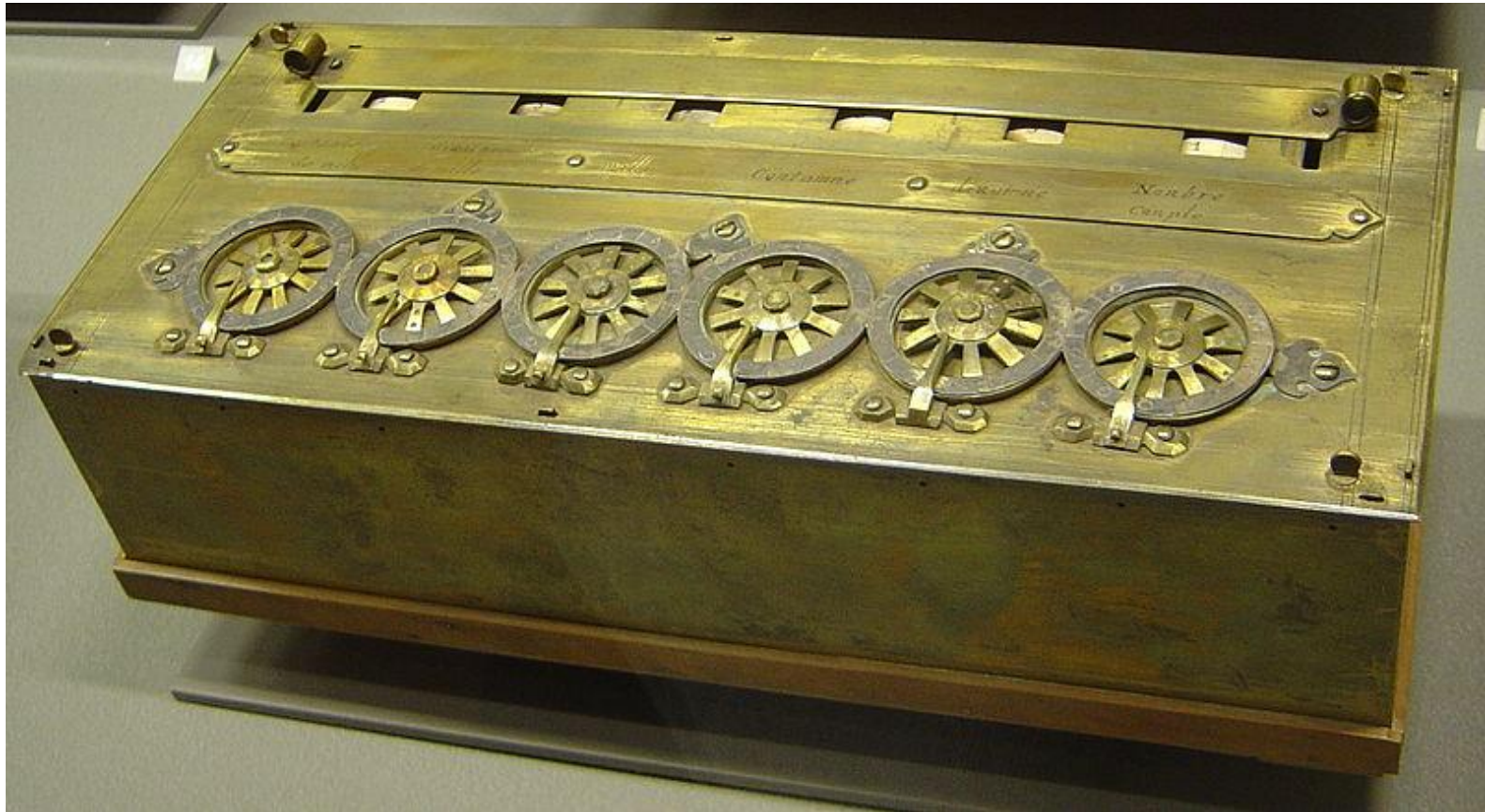


**Возможности использования  
робототехники во внеурочной  
деятельности**

# Считающие часы Вильгельма Шикарда.



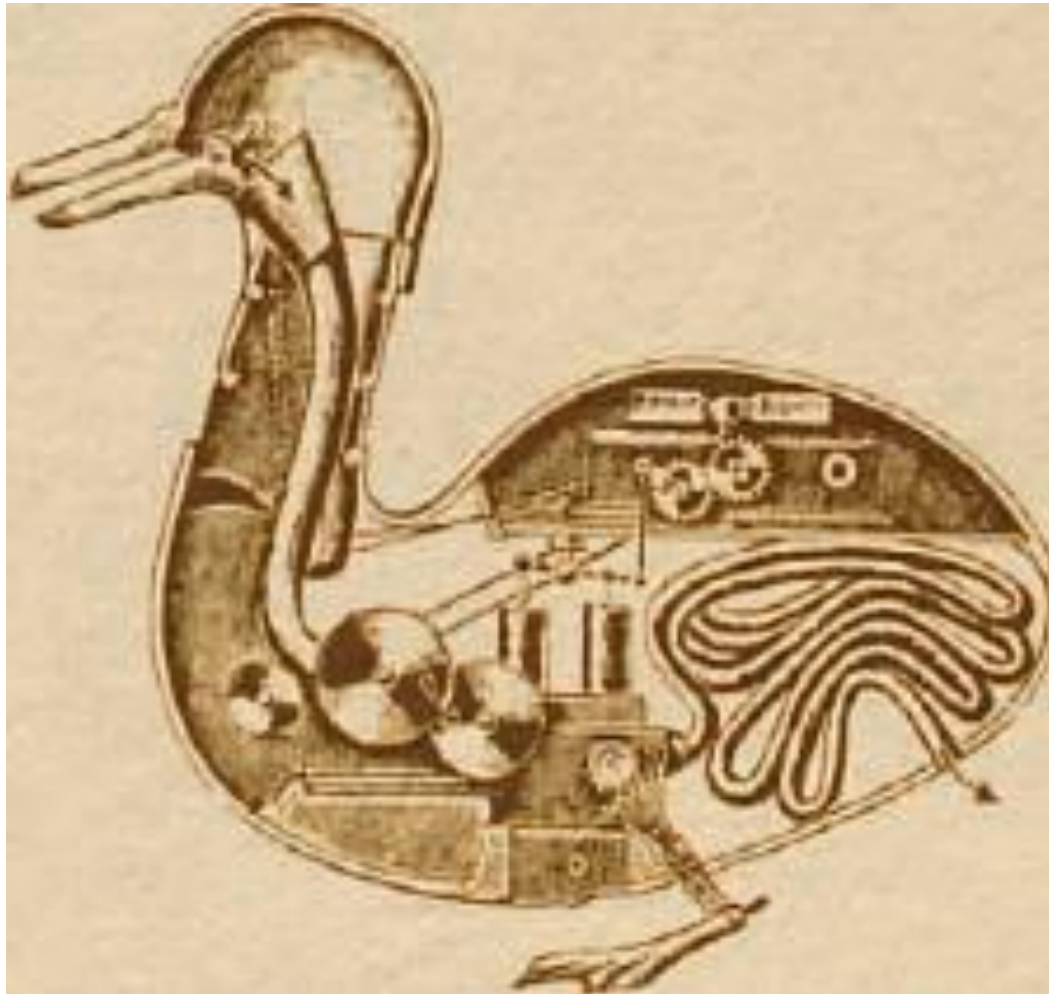
# «Паскалина»



# Счетная машина Лейбница.



# Жак де Вокансон



# Жозеф Мари Жакард



# lego mindstorms nxt 2.0



**LEGO MINDSTORMS NXT**  
BUILD AND PROGRAM ROBOTS THAT DO WHAT YOU WANT!

**Intelligent Brick**  
The programmable brain of your robot

**3D Ultrasonic Sensor**  
Makes your robot see

**Sound Sensor**  
Robot reacts to your voice commands

**Interactive Servo Motors**  
Make your robot walk and more

Age **10+**  
8527  
Cont. 577 pcs

Construction System  
PC/Mac  
Bluetooth  
USB

Create thousands of robotic inventions!

Program robot actions from your computer

1:1 Model



**BUILD AND PROGRAM ROBOTS THAT DO WHAT YOU WANT!**

**Humanoids**  
• He walks  
• He breathes  
• He thinks  
• He feels

**ALPHA REX**  
Alpha Rex is alive!  
His walls do face legs and has  
subsonic capabilities

**SOINS**  
Spide really lives a  
real life existence.  
It breathes on its own  
legs and it can get  
hot like it will  
bring you!

**Animal robots**

**Vehicle robots**

**TriBot**  
A flexible and fast  
3-wheeled driving robot  
it takes advantage of all  
four sensors to do the job  
and program it to do...

**Gadgets on MINDSTORMS.COM**  
Build these cool robotic gadgets.  
Go to [MINDSTORMS.COM](http://MINDSTORMS.COM) to get it!  
No programming necessary!

Build a robot  
that can  
walk, breathe  
and think!

Put your robot  
to the test!

**Join the community!**

Use the community to get the latest news, see how others use the bricks, and get help when you need it. You can also create a digital version of your robot, download and modify the program for your M3, participate in building competitions, and much, much more!

**FIRST LEGO® League**  
Are you ready to take on the challenge? Take up with your  
friends or classmates and join the FIRST LEGO League Battle  
Bots competition using your LEGO MINDSTORMS NXT. It's fun,  
educational and challenging!  
For more details visit [www.fllc.com](http://www.fllc.com)

**LEGO MINDSTORMS**  
[www.MINDSTORMS.COM](http://www.MINDSTORMS.COM)





## Challenges



Choose from 18 challenges  
- beginner to expert



## Easy to Use



Intuitive icon-based drag and  
drop programming



## Advanced



Choose from many new  
advanced features



## The Robotics Tool Set:



## QUICKSTART GUIDE

In just 30 minutes  
your first robot  
is in action!



449001

### 1. Build



Endless possibilities from simple to complex robots

### 2. Program



Program robot actions on your computer

### 3. GO!



See your robot come alive!

## The NXT Technology:



**Touch Sensor**  
Reacts to touch or release

**Sound Sensor**  
Reacts to sound commands

**Light Sensor**  
Detects different colors and light intensity

**NXT**

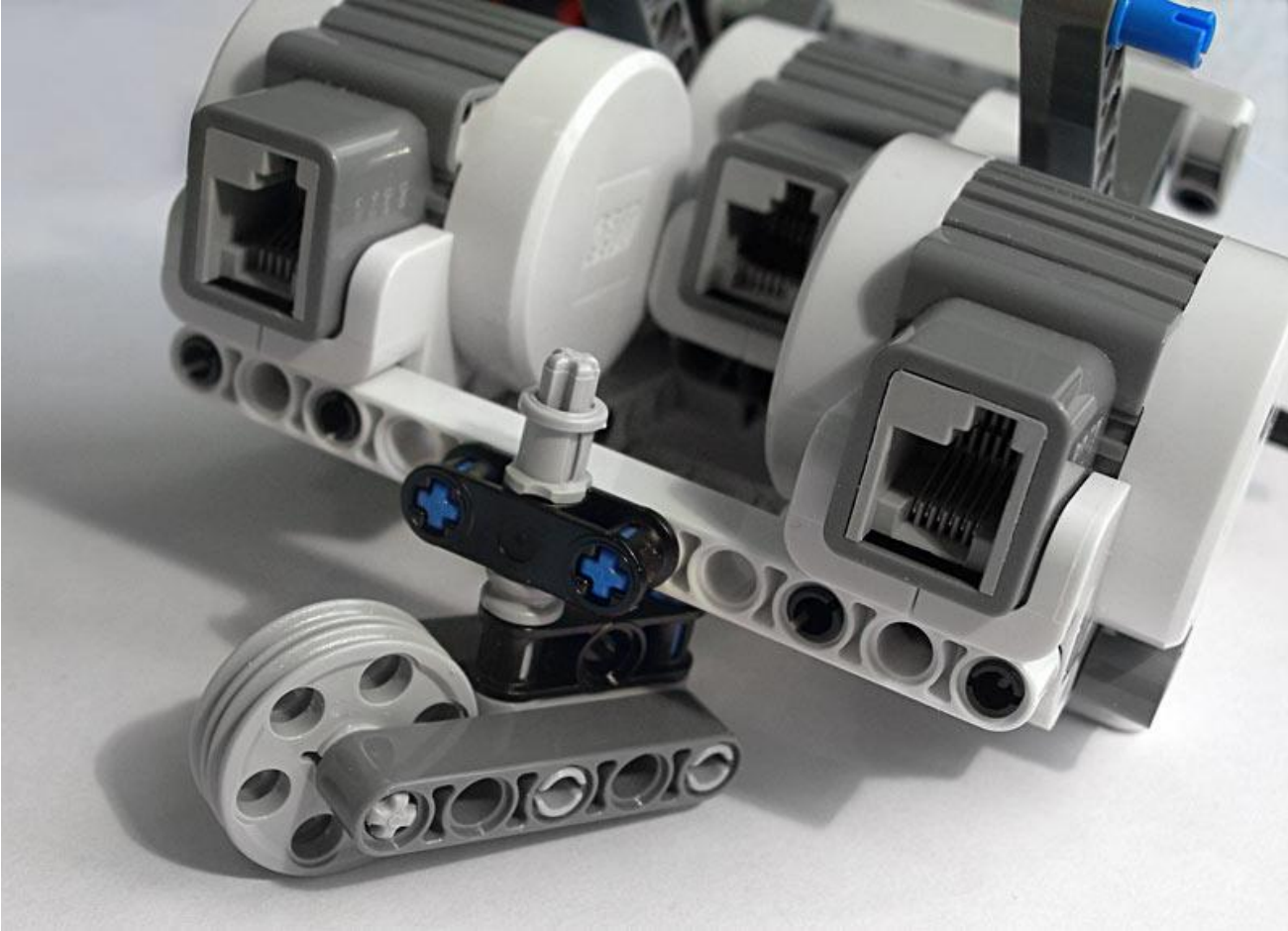
- 32 bit micro processor
- 4 input ports/3 output ports
- Matrix display
- USB and Bluetooth
- Speaker

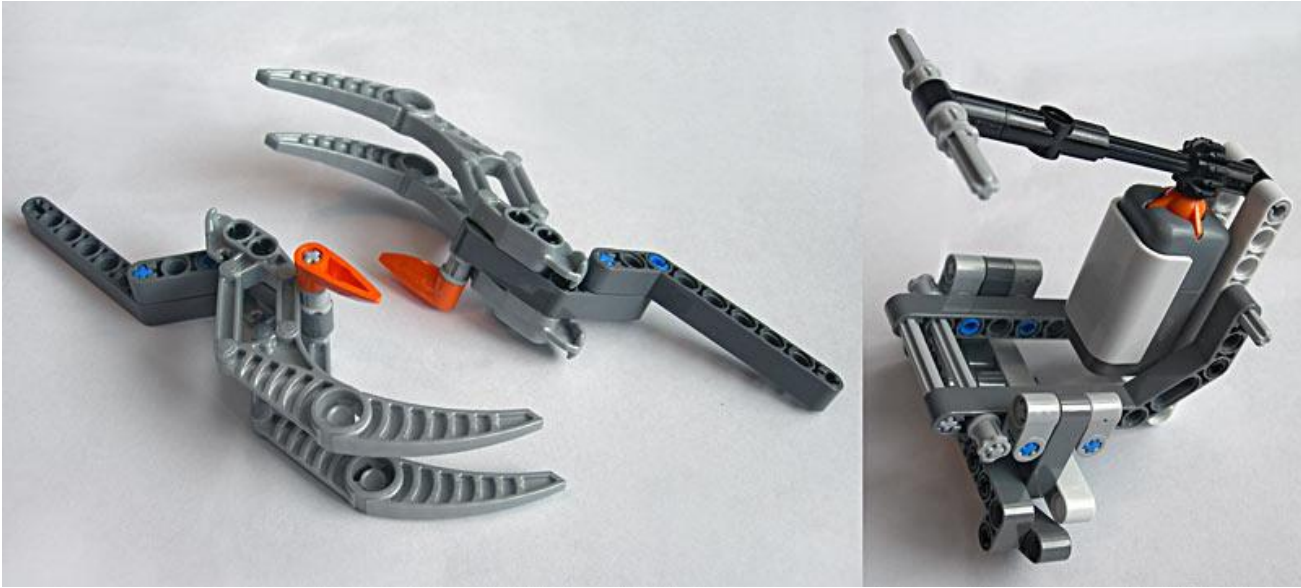
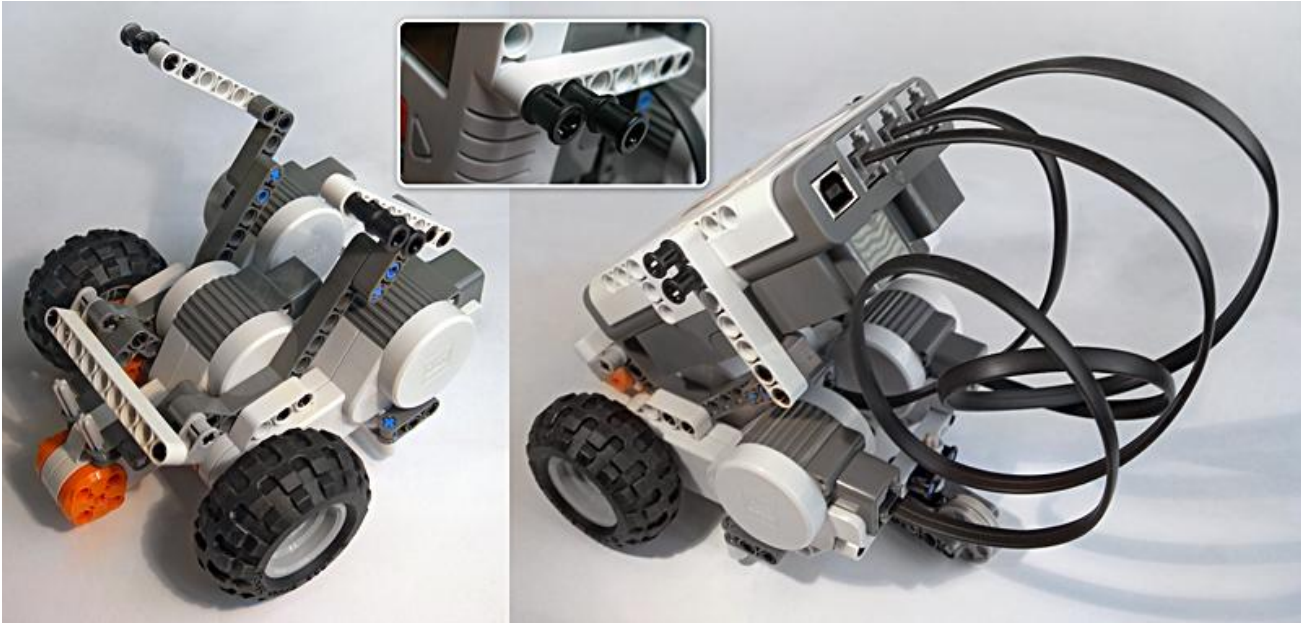
**Interactive Servo Motors**  
Precise control of robot. Built-in rotation sensor can measure one degree steps

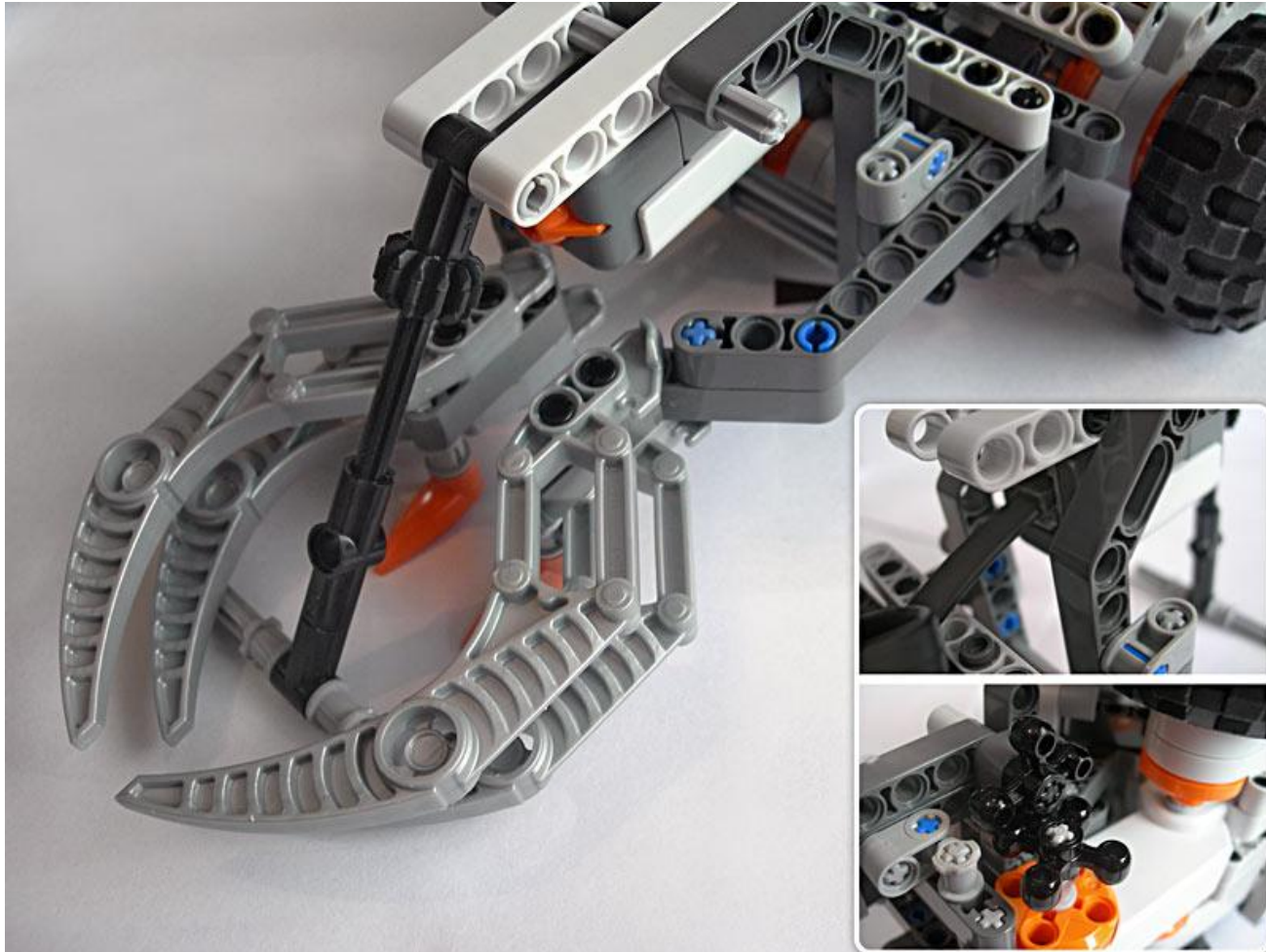
**Ultrasonic Sensor**  
Measures distance and movements. Detects objects

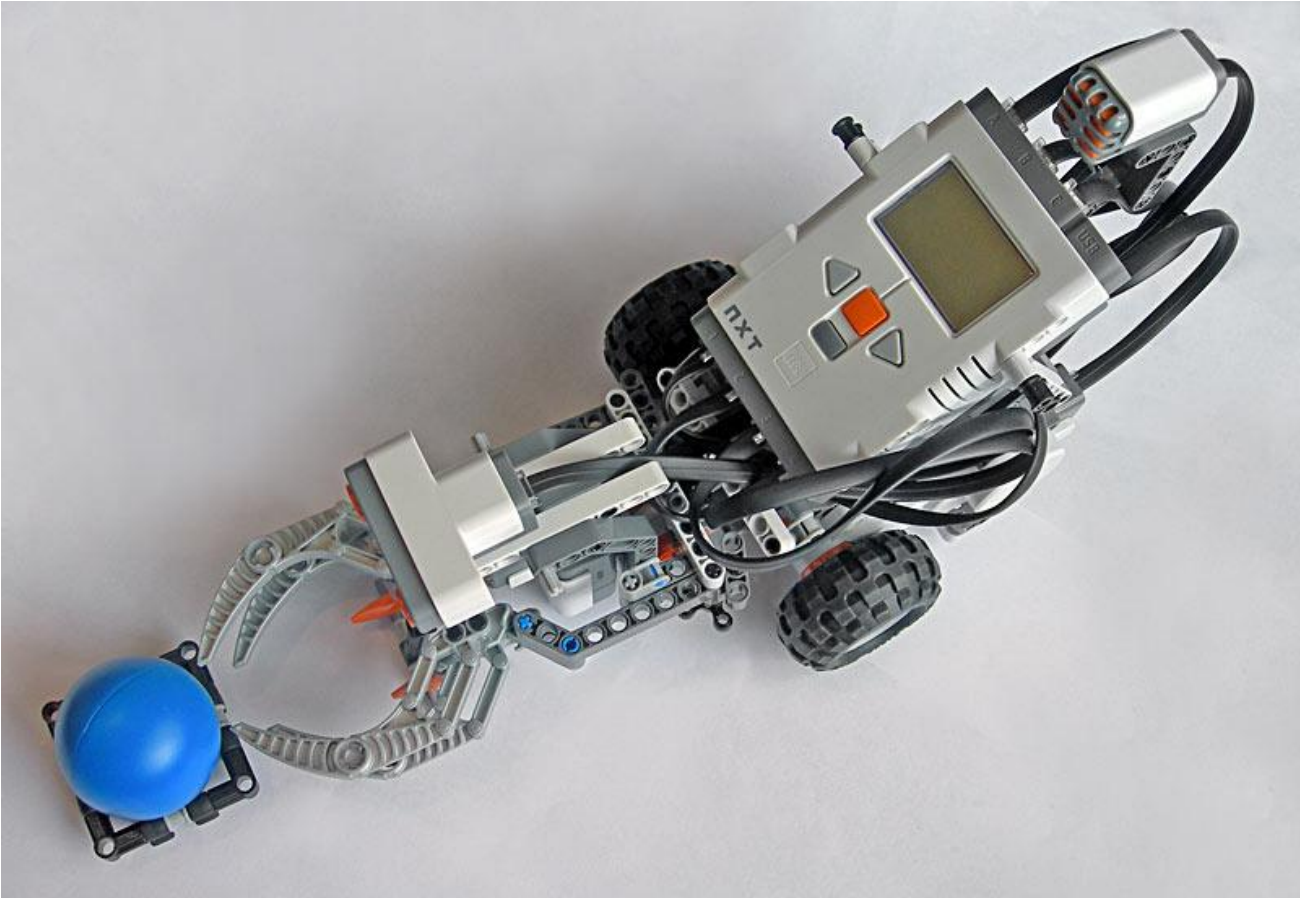






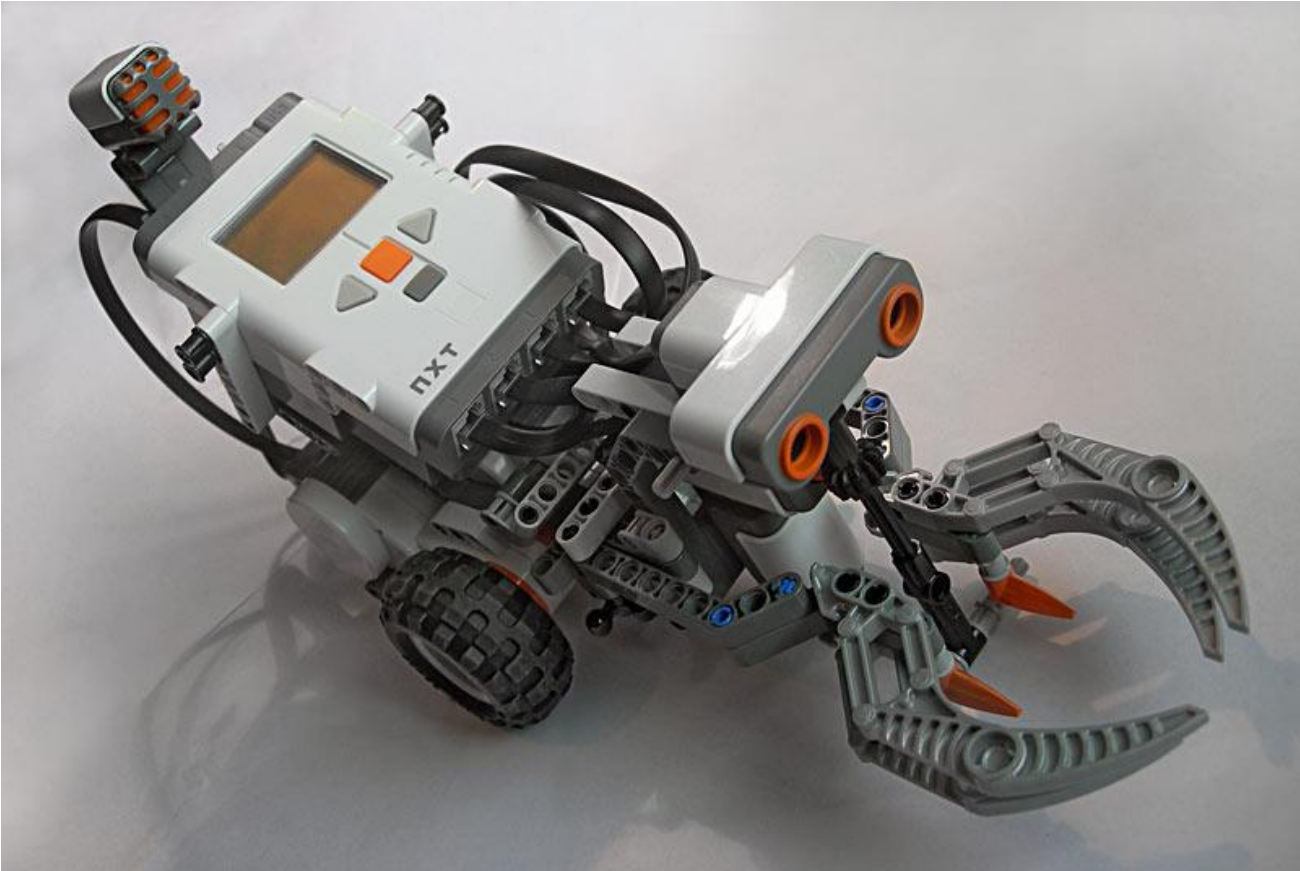








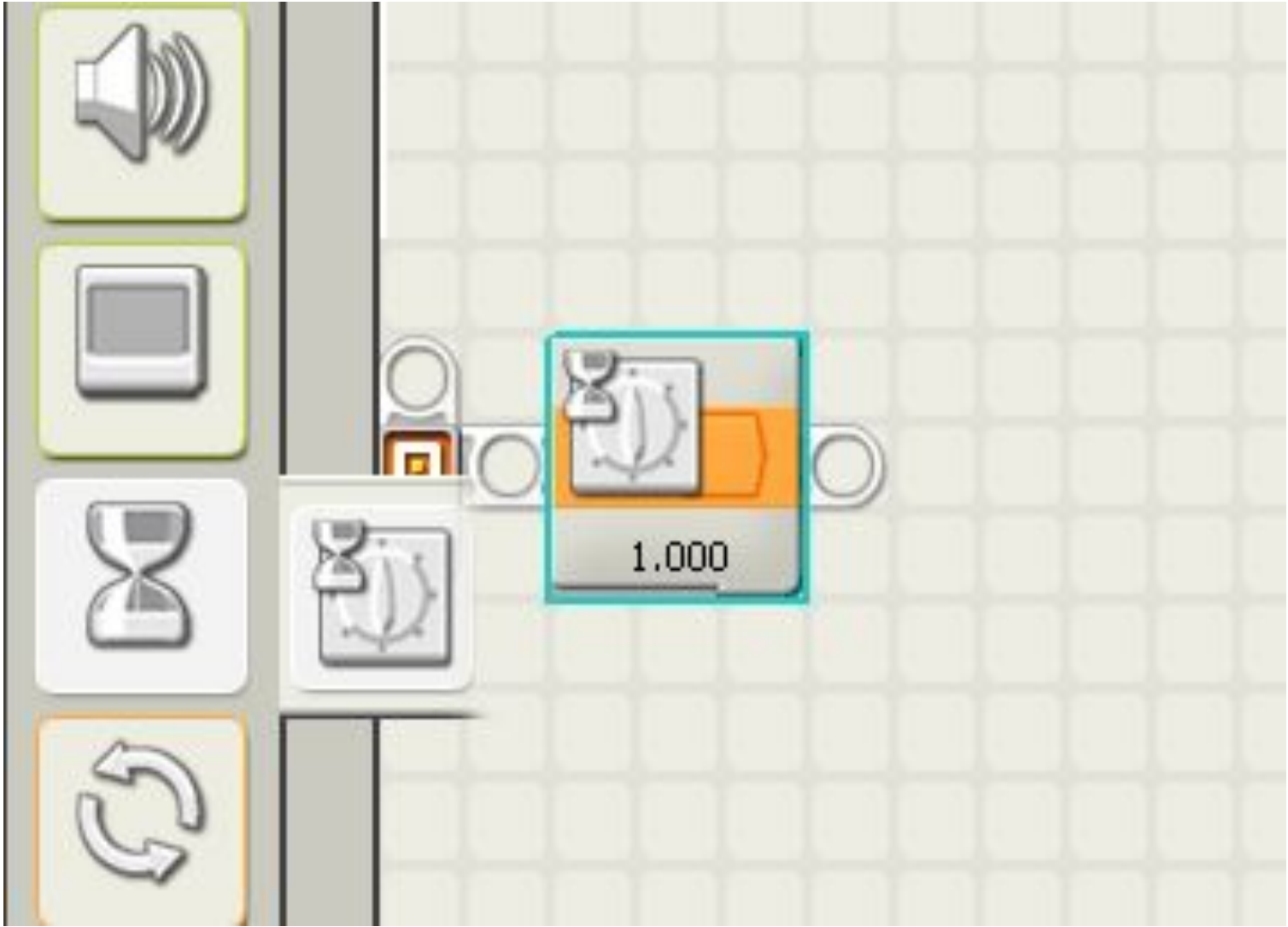




Ультразвуковой датчик управляет роботом.







## Wait



Control:

Time



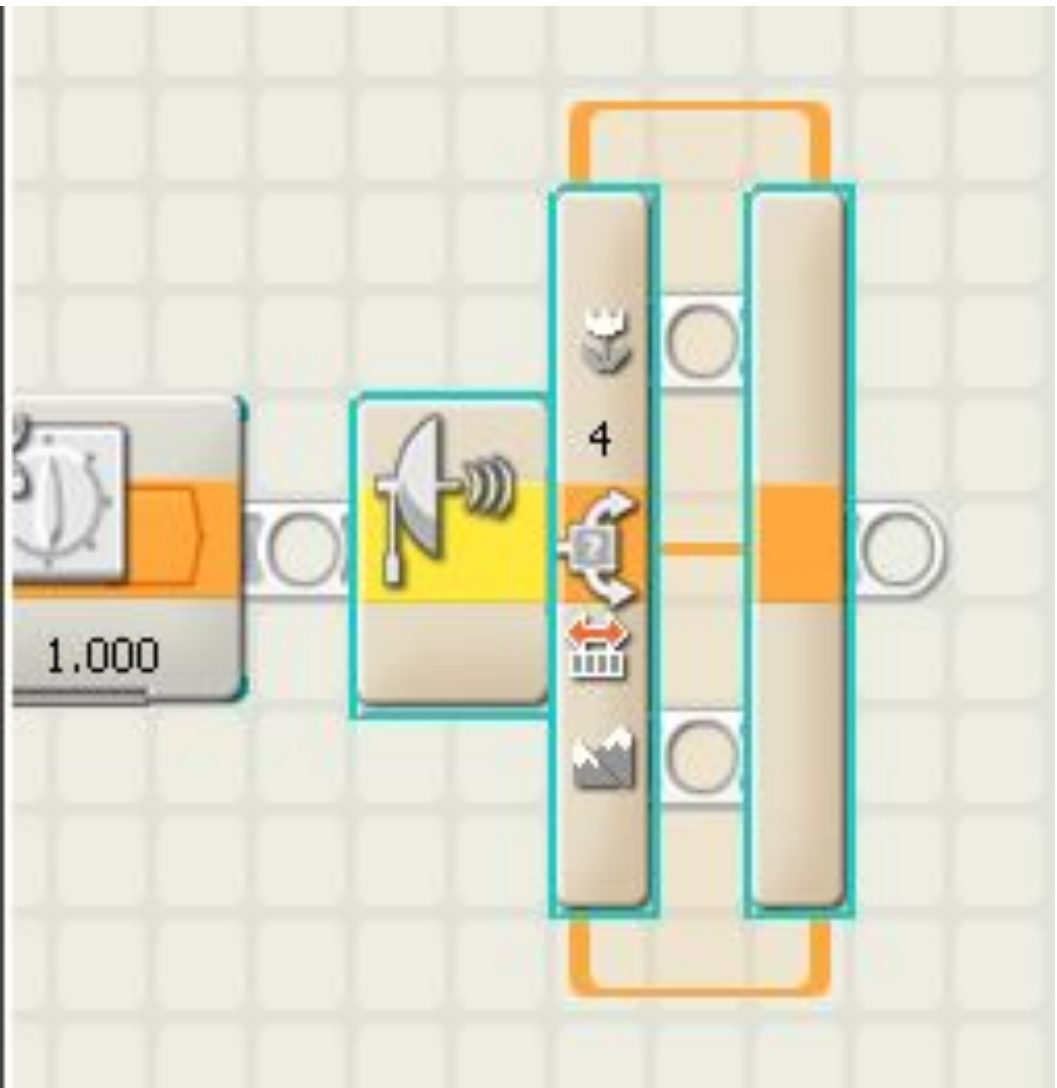
Until:

Seconds:

1



1



## Switch



Control:

Sensor



Sensor:



Ultrasonic Sensor



Display:



Flat view

0



Port:

1

2

3

4

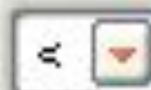
Ultrasonic Sensor



Compare:



Distance:



35



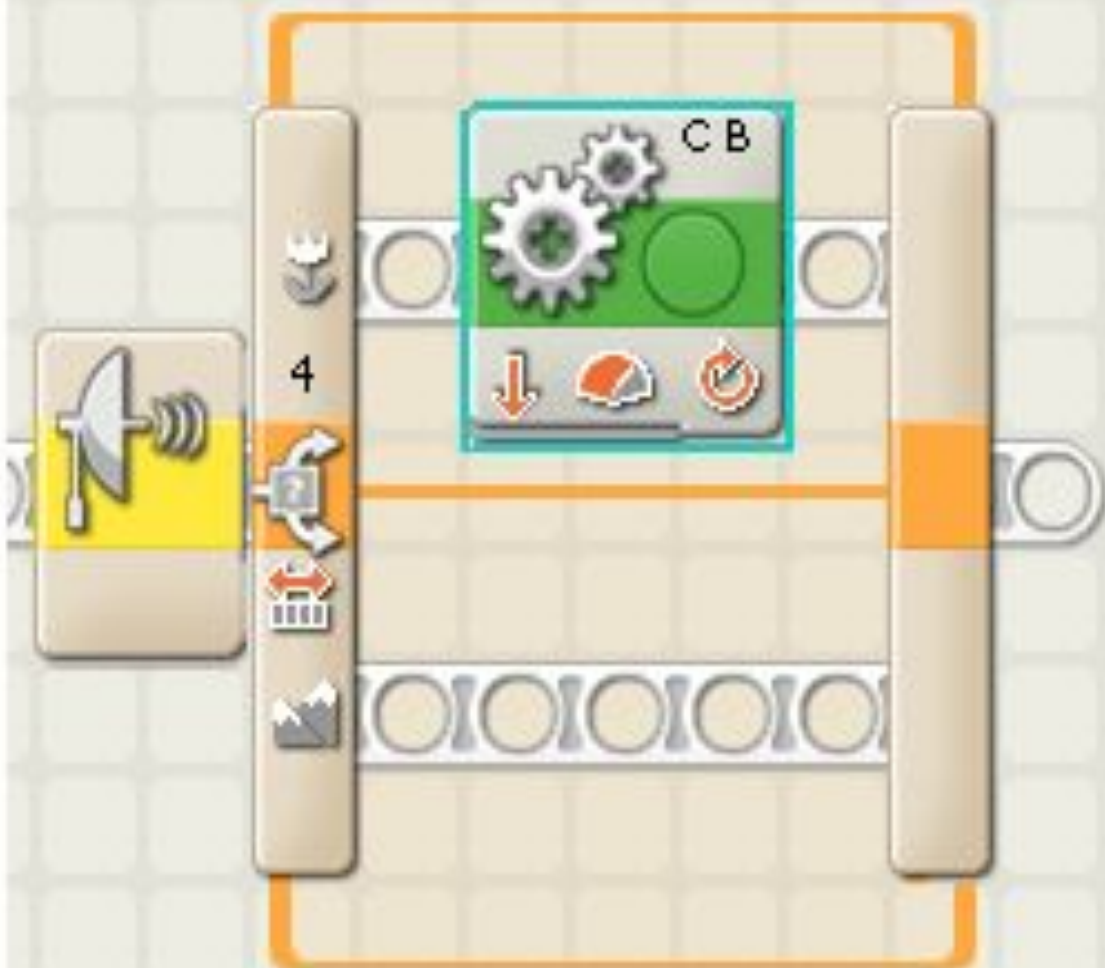
Show:

cm

Centimeters




Common












### Move


 **R**  
0 A  
0 B  
0 C

**Port:**  A  B  C



**Direction:**      

**Steering:**     



**Power:** 

**Duration:**  **Rotations**

**Next Action:**   Brake   Coast

