Printabots

roboteurs

ADVANCE YOUR STUDENTS

WELCOME

TO YOUR FUTURE CLASSROOM

Robotics is one of the fastest growing industries in both commercial and educational use. In addition, additive manufacturing (3D Printing) is one of the most widely implemented and adopted technologies being placed in secondary and post-secondary institutions.

Our Printabots 3D Printed Robots are the most ideal platform for teaching 3D Printing, programming, and applied learning. Instructors will also stay current with new robots being released regularly and a collection of tutorials being provided.

ADVANTAGES OF USING PRINTABOTS

FOR STUDENTS
o Inspires students to be creative while learning how to use advanced technologies like 3D Printers, motor controllers, programming software, and more.
o Motivate students to apply for engineering related careers related to robotics and technology.
o Teaches problem solving as students create ways to get the Printabots to perform tasks. For example: picking up a pencil, walk a straight line, or draw a straight line.

FOR TEACHERS
o Sample projects, labs, and tutorials provided by Roboteurs for use in the classroom.
o Inexpensive entry into robotics education.
o More functional use of 3D Printers in the classroom.

GLOBAL CUSTOMERS
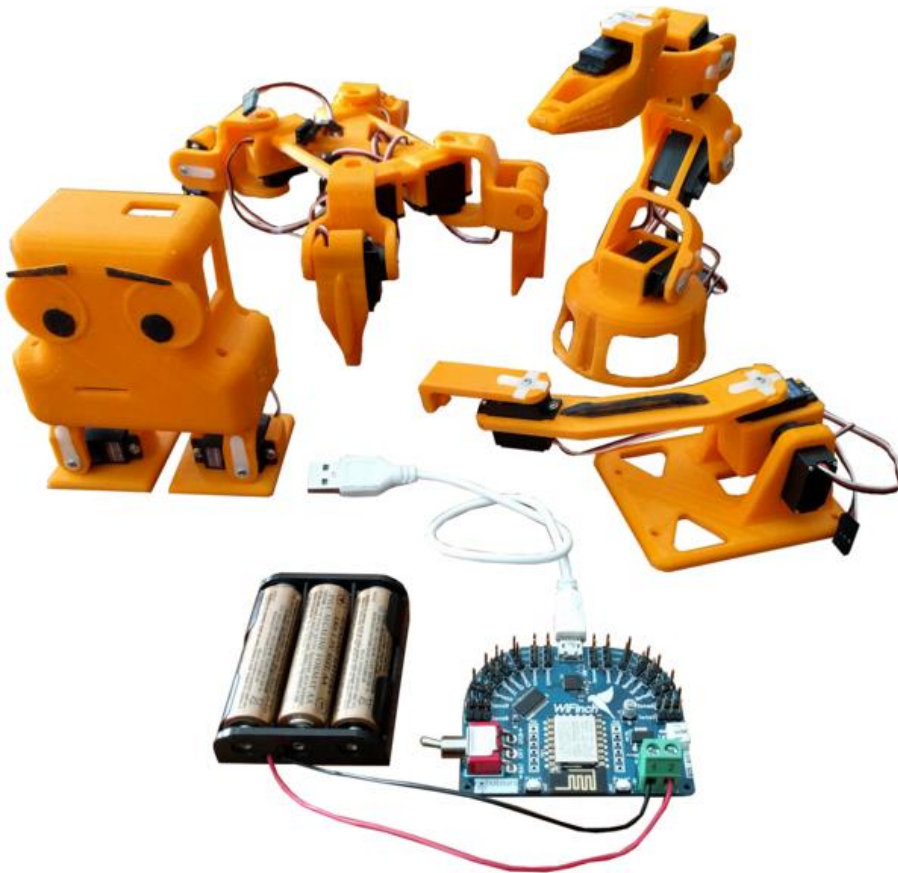
POST-SECONDARY INSTITUTIONS
o McMaster University
o Mohawk College
o Sheridan College
o University of Windsor

SECONDARY INSITUTIONS & ORGANIZATIONS
o Notre Dame Catholic Secondary School
o Osaka YMCA International School
o Feria de la Tecnología IEEE-Guatemala

PRODUCTS

PRINTABOTS MAKER KIT

Uses our WiFinch: WiFi Servo Controller
- Controls up to 16 servo motors
- Can be easily controlled from an Android app or reprogrammed using Arduino, NodeMCU, or MicroPython
- Arduino libraries are provided

STL files of robots are provided so that 3D Printed parts can be printed by school. Alternatively, parts can be outsourced and provided at a nominal cost.
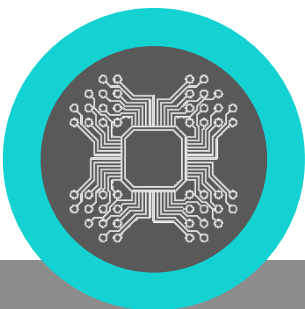
The Printabots Maker kit includes:
5 x Mini Metal Gear Servo Motor
1 x WiFinch: WiFi Servo Controller
1 x USB cable
1 x Battery Pack (AA)

shapeways

We understand that not all institutions and organizations have access to a 3D Printer. That's why we provide the ability to print your parts online by collaborating with Shapeways. Using Shapeways, you can print your robot parts in a variety of colours for a nominal cost.

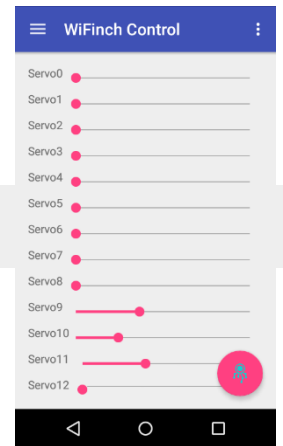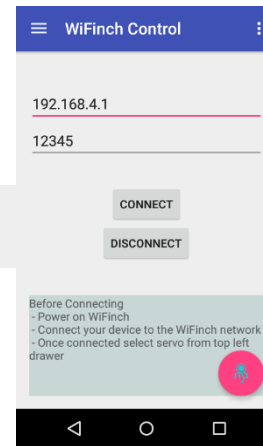You can print your parts @ www.shapeways.com/shops/roboteurs-printabots

HOW IT WORKS

PRINT THE ROBOT

ASSEMBLE THE ROBOT

BEGIN USING THE APP TO CONTROL THE ROBOT

Google

192.168.4.1

12345

CONNECT

DISCONNECT

Before Connecting
- Power on WiFinch
- Connect your device to the WiFinch network
- Once connected select servo from top left drawer

WiFinch Control

Servo0
Servo1
Servo2
Servo3
Servo4
Servo5
Servo6
Servo7
Servo8
Servo9
Servo10
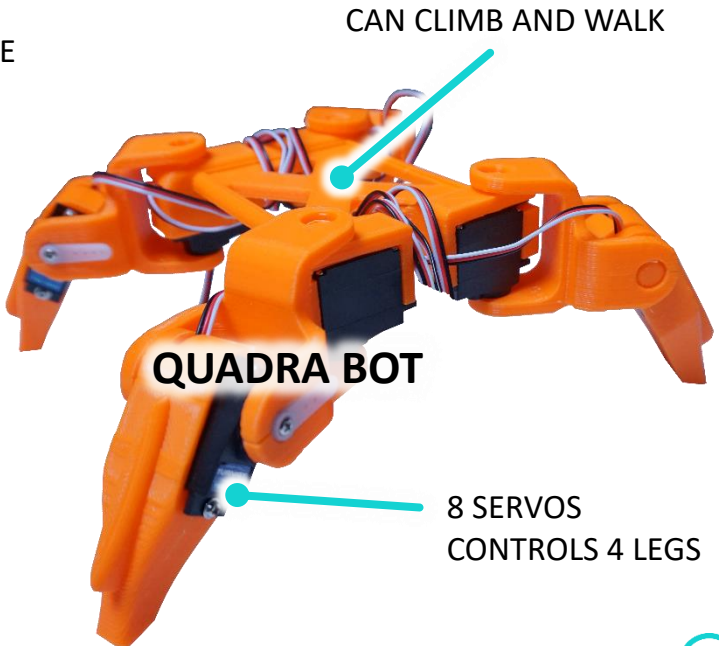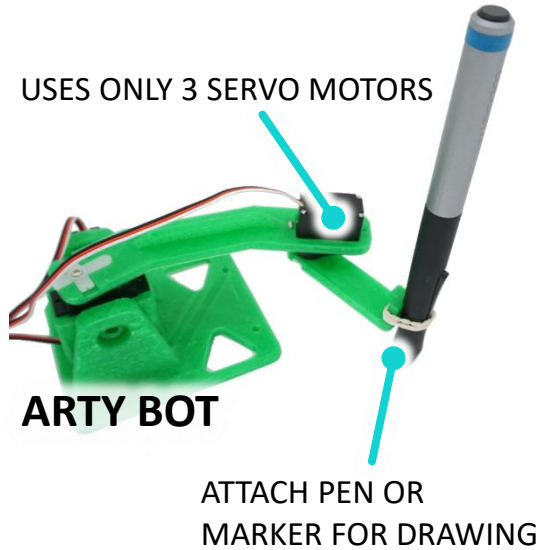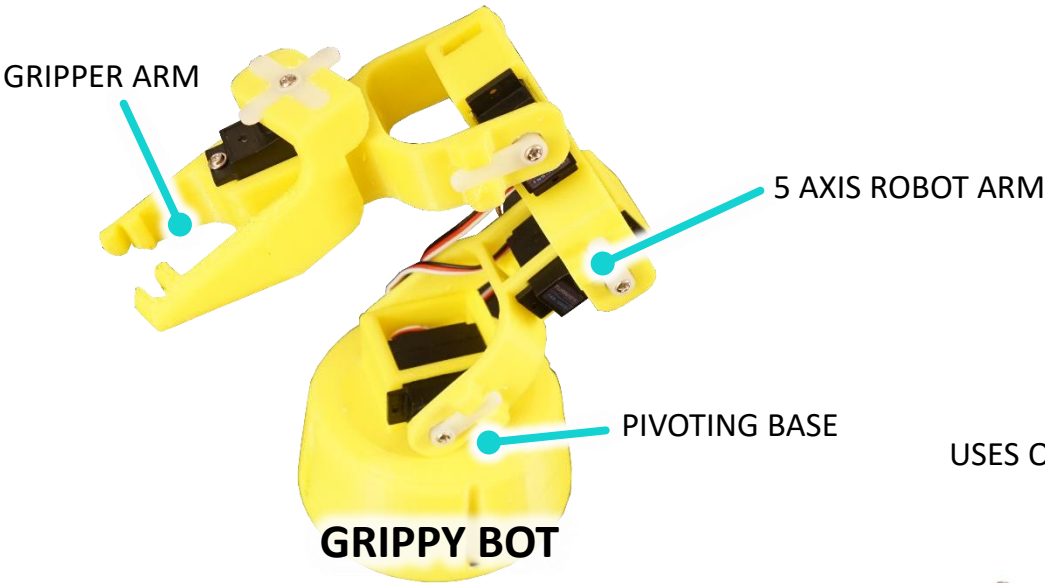Servo11
Servo12

DIG DEEPER INTO THE PROGRAMMING

```
46    /* moves two joints at the same time at some speed */
47    void move_two_joints(int joint1, int joint2, int angle1, int angle2, int spd){
48      while((servoCurrent[joint1] != (angle1)) | (servoCurrent[joint2] != (angle2))){
49        if(servoCurrent[joint1] != angle1){
50          if(angle1 > servoCurrent[joint1]){
51            servos[joint1].write(servoHome[joint1] + servoCurrent[joint1]);
52            servoCurrent[joint1]++;
53          }
54          else{
55            servos[joint1].write(servoHome[joint1] + servoCurrent[joint1]);
56            servoCurrent[joint1]--;
57          }
58        }
59        if(servoCurrent[joint2] != angle2){
60          if(angle2 > servoCurrent[joint2]){
61            servos[joint2].write(servoHome[joint2] + servoCurrent[joint2]);
62            servoCurrent[joint2]++;
63          }
64          else{
65            servos[joint2].write(servoHome[joint2] + servoCurrent[joint2]);
66            servoCurrent[joint2]--;
```

MEET THE PRINTABOTS

GRIPPER ARM

5 AXIS ROBOT ARM

PIVOTING BASE

GRIPPY BOT

USES ONLY 3 SERVO MOTORS

ARTY BOT

ATTACH PEN OR
MARKER FOR DRAWING

FACE CAN BE PAINTED

FUNNY FEET

CAN WALK OR DANCE

CAN CLIMB AND WALK

QUADRA BOT

8 SERVOS
CONTROLS 4 LEGS

A NEW GENERATION OF

ROBOT BUILDERS

WHAT STUDENTS ARE SAYING ABOUT PRINTABOTS

"I love the idea of printing my own robots in class. I can choose the colour, and it's so cool getting it to move."

"It's nice to finally print stuff in our 3D printer that we can actually use. The Grippy Bot is really fun to make."

"Robots are so cool, and these robots are so easy to put together and control."

Roboteurs is a company focused on the needs of education based robotics for students at all levels of learning. We have strong relationships with our buyers to conform products to their learning needs and desires. Currently the company has in its pipeline products for high school level students, as well as advanced robotics for University and College level students.

Roboteurs looks to grow the education based robotics field by providing tutorials, fun projects, and all the materials needed to learn. The company is always looking for new ways to improve their products, and to teach students the exciting field of robots.

EMAIL US AT INFO@ROBOTEURS.COM FOR MORE INFO

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