

Robot Name: \_\_\_\_\_

Builder's Name: \_\_\_\_\_

Motion: 2 x 28byj 5 volt, Uni-polar  
Stepper Motors with 1:64 Gearing

Control: Adafruit  
ItsyBitsy M4

Pen Control:  
9g Servo

Output:  
LEDs

Input:  
Push button

Sensing:  
2x IR Emitter/Detector pair

3D Printed  
Chassis and  
wheels

Power Switch

Power: 4 x AA (6 Volts)

Programming (via USB):

- Python
- Arduino C



Calibration Parameters:

wheel\_dia (mm): \_\_\_\_\_

wheel\_base (mm): \_\_\_\_\_

PEN\_UP (angle): \_\_\_\_\_

PEN\_Down (angle): \_\_\_\_\_

Turtle Commands:

```
left(degrees)
right(degrees)
forward(distance) mm
backwards(distance) mm
penup()
pendown()
goto(x, y)
```



Full details at <http://bit.ly/OSTurtle>