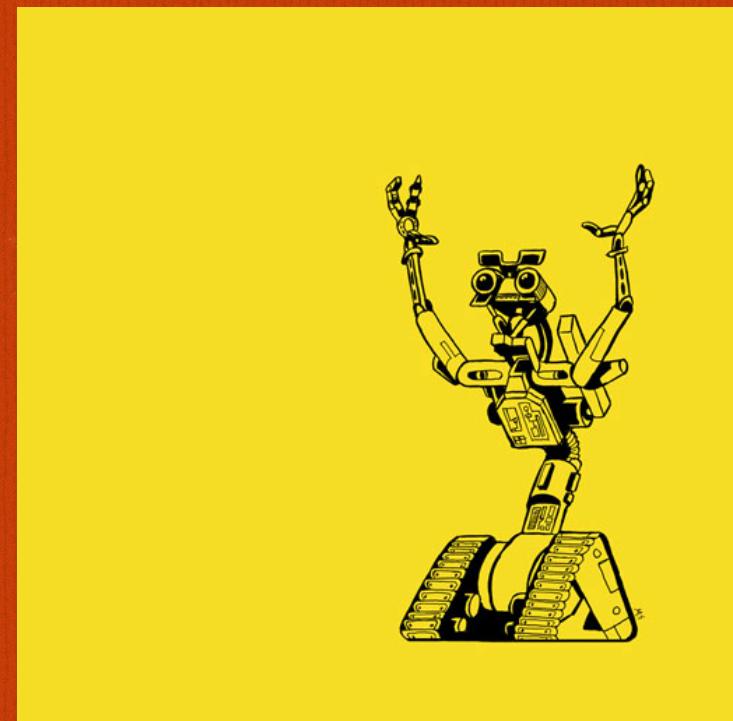


Building a Nodebot

Rodney Norris

What is a Nodebot?



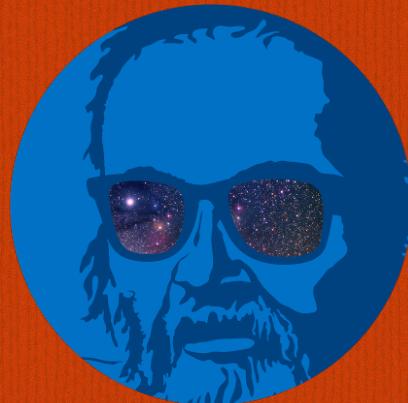
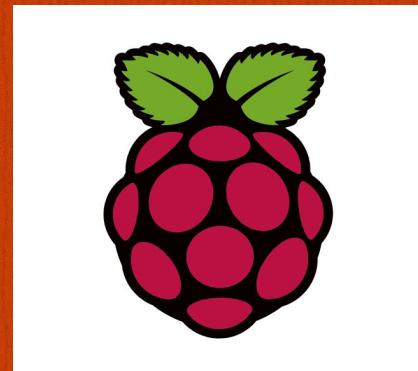
Johnny-Five

github.com/rwaldron/johnny-five
irc: freenode #nodebots

npm install johnny-five

Support for:

- Arduino
- Raspberry Pi
- Beaglebone Black
- Intel Galileo
- Spark Core
- Pinoccio
- Generic IO



Johnny-Five Setup

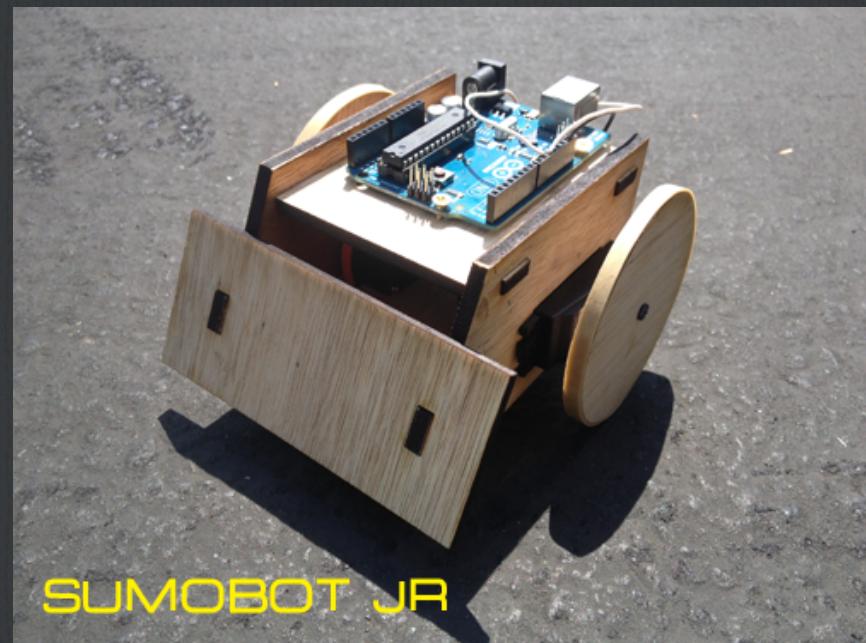
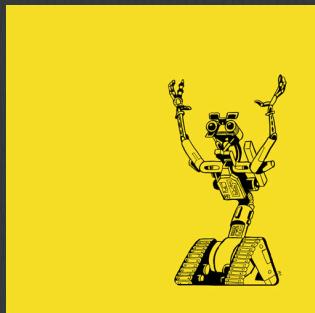
- node and npm installed and working
- Load standard-firmata sketch to Arduino
- npm install johnny-five in app folder
- var five = require('johnny-five');**
var board = new five.Board();



Setup Arduino & Test

Sumobot Jr.

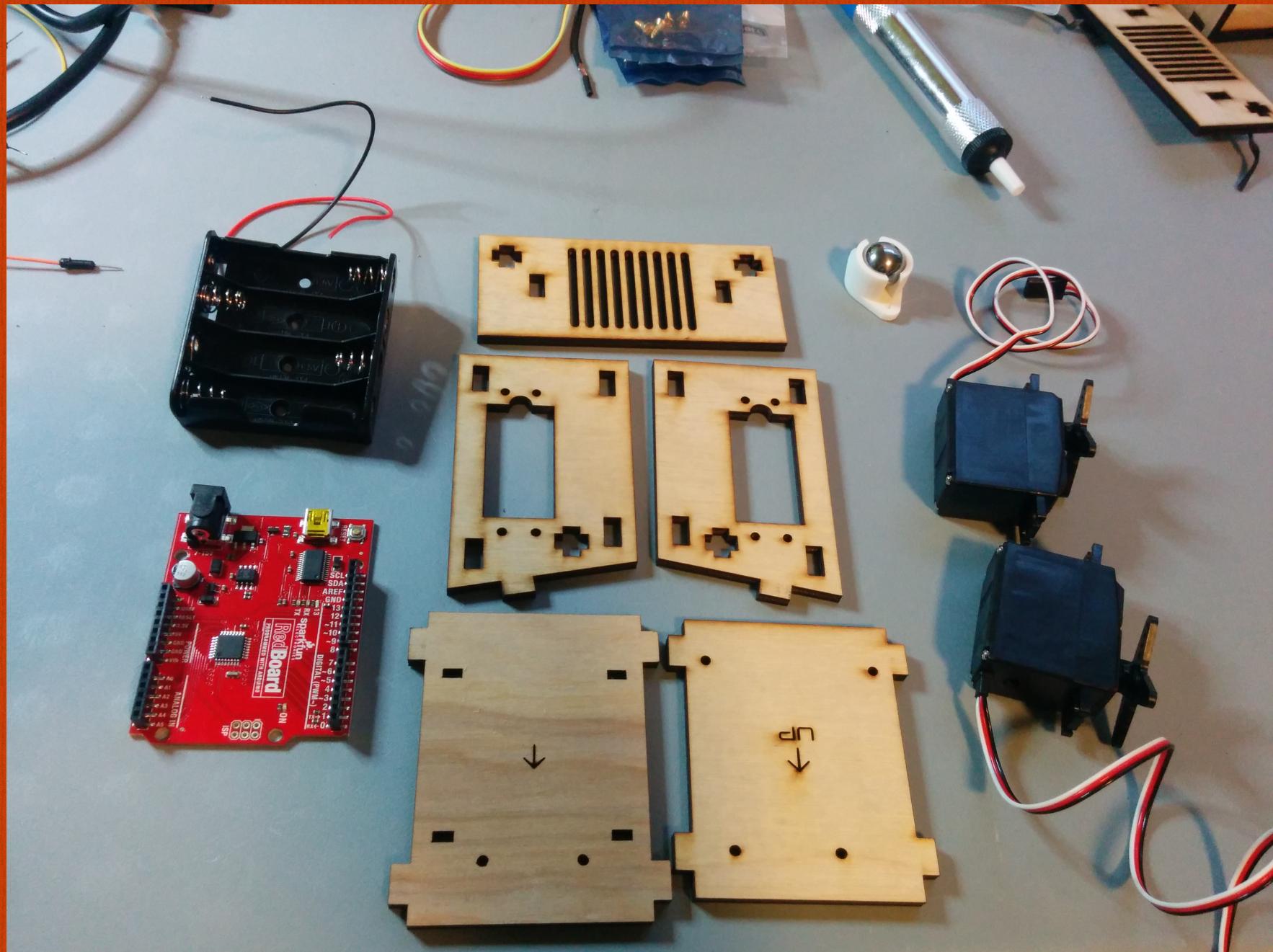
- Paweł Szymczykowski - @makenai
- github.com/makenai/sumobot-jr

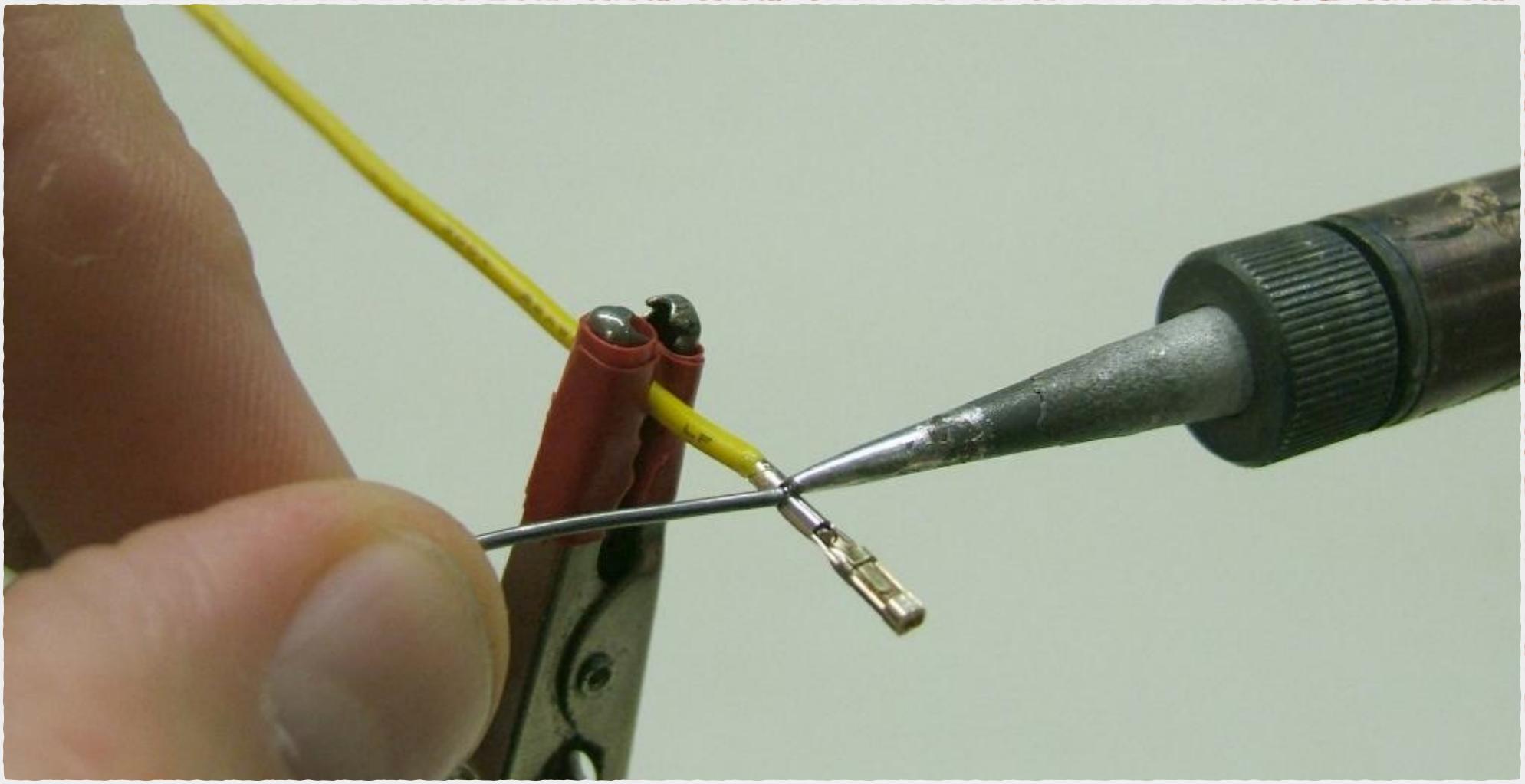


Parts

- Arduino Uno**
- Laser-cut wood frame & wheels***
- Two continuos rotation servos**
- 4x AA battery pack**
- 3D printed ball caster & 16mm bearing ball (marble)**
- #4 3/8" wood screws, rubber bands**

***Fully 3D printed models available**





Build!

watch Rodney try not to hurt himself

```
2 // Sumobot Jr demo program
3 // =====
4
5 var five = require("johnny-five");
6 var keypress = require('keypress');
7
8 keypress(process.stdin);
9
10 var board = new five.Board();
11
12 board.on("ready", function() {
13
14     console.log("Welcome to Sumobot Jr!")
15     console.log("Control the bot with the arrow keys, and SPACE to stop.")
16
17     var left_wheel  = new five.Servo({ pin: 9, type: 'continuous' }).stop();
18     var right_wheel = new five.Servo({ pin: 10, type: 'continuous' }).stop();
19
20
21     process.stdin.resume();
22     process.stdin.setEncoding('utf8');
23 }
```

Code



WOULD YOU LIKE TO KNOW MORE?

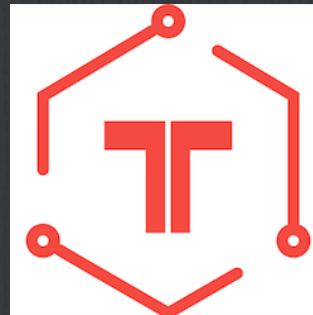
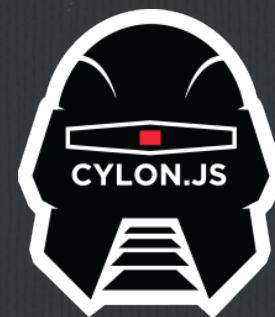
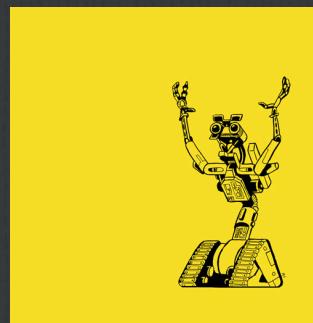
Build you own?

link: bit.ly/1qhNoja

- Total cost \$50-\$70
 - ponoko.com - laser cutting
 - shapeways.com - 3D printing
 - pololu.com - Robotics & Electronics
 - amazon.com
 - eBay
 - The Home Depot / Lowes / Ace

Javascript + Hardware

- Johnny-Five
- CylonJS
- Tessel
- Espruino



Espruino

Questions

Thank You

link: bit.ly/1qhNoja

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