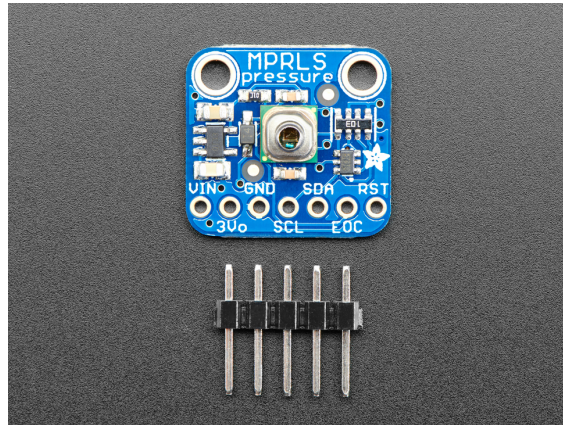


Kelvin Dizon
Huy Tran
Charles Graciano

Find at least 2 different serial based sensors (not an imu)

- **Adafruit MPRLS Ported Pressure Sensor Breakout - 0 to 25 PSI (KELVIN)**



- **Interest:** This can be used for altitude and weather measurements
 - **Price:** \$14.95 + shipping
 - **Complexity:** Medium
 - **Documentation:** <https://www.adafruit.com/product/3965>
-
- (Huy)
 - **Interest:**
 - IR Break Beam Sensor - 5mm LEDs: Infrared (IR) break-beam sensors are a simple way to **detect motion**.
 - Photo Transistor Light Sensor: a simple sensor that **detects ambient light**.
 - **Price:**
 - IR Break Beam Sensor - 5mm LEDs: **\$6.50**
 - Photo Transistor Light Sensor: **\$0.95**
 - **Complexity:**
 - IR Break Beam Sensor - 5mm LEDs: **8/10**

- Photo Transistor Light Sensor: **8/10**
- **Documentation:**
 - Adafruit.com
 - <https://www.adafruit.com/product/2168>
 - <https://www.adafruit.com/product/2831>
 - Amazon.com
 - https://www.amazon.com/Adafruit-Accessories-Break-Beam-Sensor/dp/B01BU6YBWU/ref=sr_1_1?dchild=1&keywords=IR+Break+Beam+Sensor&qid=1618357897&sr=8-1
 - https://www.amazon.com/Adafruit-Photo-Transistor-Sensor-ADA2831/dp/B071V724VM/ref=sr_1_15?dchild=1&keywords=phototransistor+light+sensor&qid=1618357405&sr=8-15

Find at least 2 different serial based actuator/controller (MOTOR CONTROLLERS Are the PRIORITY)



Brushless motor

Specifications

- RPM 22.320
- Power 155W
- Magnet material bonded
- Efficiency 88%

- Specific rpm/volt, kv 3.100
- Winding star
- NOVAK Slydr Brushless Drift 6.5 System (NK3066)



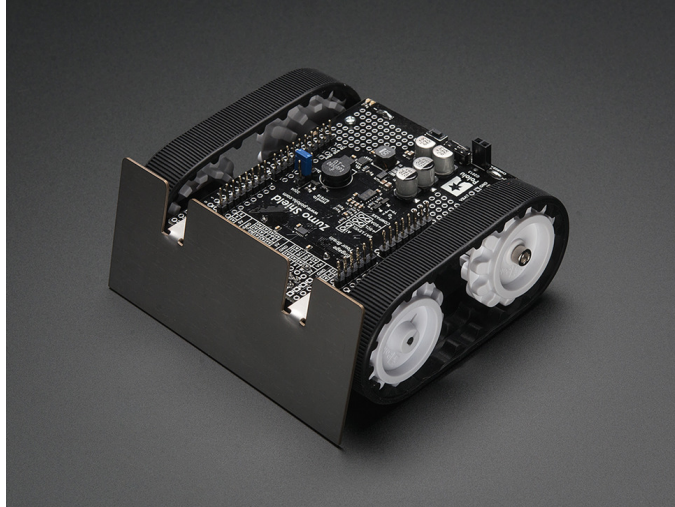
Servo motor

Specifications

| | |
|-------------------------------|--|
| Modulation: | Digital |
| Torque: | 6.0V: 125.00 oz-in (9.00 kg-cm) |
| Speed: | 6.0V: 0.17 sec/60° |
| Weight: | 1.59 oz (45.0 g) |
| Dimensions: | Length:2.17 in (55.1 mm) Width:0.79 in (20.1 mm) Height:1.50 in (38.1 mm) |
| Motor Type: | Brushed |
| Gear Type: | Plastic |
| Rotation/Support : | Dual Bearings |

- (Charles)
 - Brushless motor (RC Car)
 - Servo motor (RC Car)
 - **Interest:**
 - Brushless motor (RC Car)
 - Servo motor (RC Car)
 - **Price:**
 - Brushless Motor (RC Car) : \$71.99- \$99.95 (*discontinued*)
 - Servo motor (RC Car): \$38.50
 - **Complexity: - Medium**
 - <https://howtomechatronics.com/tutorials/arduino/arduino-brushless-motor-control-tutorial-esc-bldc/>
 - This tutorial has everything you need to construct a working fan or propeller of some sort from the brushless motor and the Arduino board. The list of materials are given with the instructions as well as code for the software.
 - **Documentation:**
 - Brushless motor (RC Car): <https://www.amainhobbies.com/lrp-eraser-sport-brushless-motor-13.5t-lrp50370/p20802>
 - Servo motor (RC Car): <https://www.amazon.com/Traxxas-2075-Digital-High-Torque-Waterproof/dp/B002PGW31G>

- Zumo Robot for Arduino - v1.2 (KELVIN)



- **Interest:** I can use this to move little things around
- **Price:** \$99.95 + shipping
- **Complexity:** Medium
- **Documentation:** <https://www.adafruit.com/product/1639>

Find 1 analog input sensors

- **Mini Analog Joystick - 10K Potentiometers (KELVIN)**



- **Interest:** I want to use this to move things around
- **Price:** \$19.95 + shipping
- **Complexity:** Easy
- **Documentation:** <https://www.adafruit.com/product/3102>

Find 1 analog output (PWM) based controller (optional)

- **Anemometer Wind Speed Sensor w/Analog Voltage Output (KELVIN)**



- **Interest:** This can be used to measure speed when we're doing exercises such as jogging, running or riding a bike.
- **Price:** \$44.95 + shipping
- **Complexity:** 8/10
- **Documentation:** <https://www.adafruit.com/product/1733>