

Serial Based Sensor

1. Adafruit EMC2101 I2C PC Fan Controller and Temperature Sensor - STEMMA QT / Qwiic (Prajwol)
<https://www.adafruit.com/product/4808>
Expense: 5.50
Complexity: Easy
Documentation: Available
2. Adafruit VL6180X Time of Flight Distance Ranging Sensor (VL6180) - STEMMA QT (Prajwol)
<https://www.adafruit.com/product/3317>
Expense: 13.95
Complexity: Medium
Documentation: Code Available
<https://learn.adafruit.com/adafruit-vl6180x-time-of-flight-micro-lidar-distance-sensor-breakout/overview>
3. Adafruit Sensirion SHT31-D - Temperature & Humidity Sensor (Rachel)
<https://www.adafruit.com/product/2857>
\$13.95
Complexity: easy
Documentation: Available

Adafruit GEMMA v2 - Miniature wearable electronic platform PRODUCT ID: 1222 (Rachel)
<https://www.adafruit.com/product/1222>
9.95
Complexity: easy
Documentation: many

OpenMV Cam H7 - MicroPython Embedded Vision + Machine Learning Product ID: 4478
<https://www.adafruit.com/product/4478>
Cost: \$65.00

Actuator

1. Adafruit 15x7 CharliePlex LED Matrix Display FeatherWing - Red (Prajwol)
 - a. <https://www.adafruit.com/product/3134>
 - b. Expense: 9.95
 - c. Complexity: Medium
 - d. Documentation/Any Code: Available
2. Monochrome 1.3" 128x64 OLED graphic display - STEMMA QT / Qwiic (Prajwol)
 - a. <https://www.adafruit.com/product/938>

- b. Expense: 19.95
 - c. Complexity: hard
 - d. Documentation/Any Code: Available
- 3. Adafruit TB6612 1.2A DC/Stepper Motor Driver Breakout Board (Rachel)
 - a. <https://www.adafruit.com/product/2448>
 - b. 4.95
 - c. Complexity: easy?
 - d. Documentation/Any Code:
- 4. Mini USB Microphone (Rachel)
- 5. <https://www.adafruit.com/product/3367>
- 6. 5.95
- 7. Complexity: not really
- 8. Documentation: little

Analog Input

- 1. Muscle Sensor Surface EMG Electrodes - H124SG Covidien - Pack of 6
 - a. <https://www.adafruit.com/product/2773>
 - b. Expense: 4.95
 - c. Complexity: Medium
 - d. Documentation/Any Code: Available
- 1) Adafruit DRV2605L Haptic Motor Controller + Vibrating Mini Motor Disc (Prajwol)

<https://www.adafruit.com/product/2305>

<https://www.adafruit.com/product/1201>

Expense: 7.95 + 1.95

Complexity: Easy

Documentation: Youtube and code available

<https://learn.adafruit.com/adafruit-drv2605-haptic-controller-breakout/arduino-code>

Analog Output

- 1. Adafruit Joy FeatherWing for all Feathers (Prajwol)
 - a. <https://www.adafruit.com/product/3632>
 - b. Expense: 9.95
 - c. Complexity: Medium
 - d. Documentation/Any Code: Available
- 2. Analog 2-axis Thumb Joystick with Select Button + Breakout Board (Rachel)
 - a. <https://www.adafruit.com/product/512>
 - b. Expense: 5.95

- c. Complexity: easy? "Easy to mount a PSP/Xbox-like thumb joystick to your project."
 - d. Documentation/Any Code:yes
- 3. LED Illuminated Triangle Pushbutton A.K.A 1960s Sci-Fi Buttons - Green (Rachel)
 - a. <https://www.adafruit.com/product/4188>
 - b. Expense: 3.95
 - c. Complexity: east
 - d. Documentation: yes

Detect temperature

Mood/color changer

Illuminated fan