

EE49 Lab – Parts

B. Boser, 10/4/2017

Quantity	Description	Vendor Information
1	Microcontroller, Huzzah32	https://www.adafruit.com/product/3405
1	3.7V / 500mAh+ Lithium Polymer Battery, for Huzzah32	https://www.adafruit.com/product/1578
1	INA219 breakout board	https://www.adafruit.com/product/904
1	MPU9250 6+ DOF IMU breakout board	https://www.sparkfun.com/products/13762
1	DRV8833 breakout board	https://www.pololu.com/product/2130
1	Micro-USB cable	(at lab station)
1	Mini proto-board	e.g. https://www.amazon.com/HiLetgo-Solderless-Breadboard-Protoboard-Prototyping/dp/B00LSG5BJK/ref=sr_1_1?ie=UTF8&qid=1507151128&sr=8-1&keywords=mini+protoboard
1	Robot chassis kit with motors, compatible with HC-020K encoders	https://www.amazon.com/gp/product/B00GLO5SMY/ref=oh_aui_search_detailpage?ie=UTF8&psc=1
1	HC-020K Optical Encoder kit (TWO encoders)	https://www.amazon.com/gp/product/B00NPWGEIM/ref=oh_aui_search_detailpage?ie=UTF8&psc=1
4	AA NiMH batteries	(at lab station)
1	Red LED (through hole)	e.g. https://www.amazon.com/CO-RODE-Emitting-Assorted-300-Pack/dp/B073XL9DGP/ref=sr_1_5?ie=UTF8&qid=1508368683&sr=8-5&keywords=led&th=1
1	Resistor, 200 ... 500Ω (through hole)	e.g. https://www.amazon.com/dp/B0185FG01U/ref=biss_dp_t_asn
1	Analog 2-axis joystick	https://www.adafruit.com/product/512
1	Solar cell, 5V nominal, 1W+	e.g. https://www.amazon.com/gp/product/B00P16TLBU/ref=oh_aui_search_detailpage?ie=UTF8&psc=1 or https://www.amazon.com/gp/product/B00CBT8A14/ref=oh_aui_search_detailpage?ie=UTF8&psc=1
1	Piezo buzzer, 5V nominal (compatible with solar cell)	e.g. https://www.amazon.com/gp/product/B06XZYL2QS/ref=oh_aui_detailpage_o05_s00?ie=UTF8&psc=1
1	Jumper wires (set)	e.g. https://www.amazon.com/UCEC-Breadboard-Jumper-Ribbon-Cables/dp/B072NF81D7/ref=sr_1_3?s=electronics&ie=UTF8&qid=1507151216&sr=1-3&keywords=10cm+jumper+wire

Consumables

- Wire (solid), #22 gauge (fit into solderless prototyping boards)
- Solder

Tools

- Wire cutter
- Wire stripper
- Tweezers
- Soldering station

Instruments

- Digital Multi Meter (DMM)
- Oscilloscope
- Laboratory power supply
- Test cables