



IoT Fundamentals 2.0 Equipment List

Equipment list is provided per student pod (suggest 2-3 students per pod)

Recommended bundled kits and extra parts:

For the Connecting Things course:

- [SparkFun Raspberry Pi 3B+ Starter Kit](#)
- [SparkFun Tinker Kit](#)

For the 2.2.4.2 and 2.2.4.3 labs the equipment list from above plus:

- [Flex Sensor 2.2"](#)
- [SPDT 5V Relay](#)
- [Transistor - NPN \(BC337\)](#)
- [Diode Small Signal - 1N4148](#)

For the Big Data & Analytics course:

- Connecting Things 2.0 equipment list from above plus:
- [Raspberry Pi Camera Module v2](#)

For the Hackathon Playbook:

- All of the above, with option to add more types of sensors depending on student project

Minimum list of components to complete the Connecting Things labs:

Connecting Things:

- [Raspberry Pi 3 Model B+](#)
- [Micro USB Power Adapter \(PSU\) with min 2A power](#)
- [Micro SD card min 8GB min Class10](#)
- [USB Micro SD card reader](#)
- [SparkFun Redboard \(or other Arduino Uno compatible board\)](#)

Last Updated April 23, 2018

- [Solderless Breadboard](#)
- [5x 330Ohm Resistor](#)
- [5x 10kOhm Resistor](#)
- [5x Red LED](#)
- [5x Green LED](#)
- [5x Blue LED](#)
- [1x RGB LED](#)
- [1x Servo Motor](#)
- [1x 10kOhm Potentiometer](#)
- [1x Push Button](#)
- [1x TMP36 Temperature Sensor](#)
- [1x 10kOhm Photocell](#)
- [1x 10kOhm Flex sensor](#)
- [1x 5V Relay](#)
- [1x BC337 Transistor](#)
- [1x 1N4148 Diode](#)
- [30x Male-to-Male Jumper Wires](#)
- [10x Male-to-Female Jumper Wires](#)
- [10x Female-to-Female Jumper Wires](#)

Change log:

April 17, 2017: minimum SD card 8GB (was 4GB)

April 22, 2017: Sparkfun Inventors Kit for Arduino V3.3 (V3.2 eol'd, reduced price!)

December 12, 2017:

- Updated the SparkFun Inventor's Kit for Arduino to V4.0 (V3.3 eol'd)
- Added links for the components used in the 2.2.4.2 and 2.2.4.3 Connecting Things labs
- Added product links to the Minimum list of components
- Consolidated all product links to SparkFun.com

April 23, 2018:

- Replaced the SparkFun Inventor's Kit with Tinker Kit = 50% price reduction
- Updated the Raspberry Pi 3 Starter kit to the new Raspberry Pi 3B+ Starter kit