# Hardware Kits

### Assembled for Bud Lab Hackathon

## Raspberry Pi 3 – Starter Kit

- Raspberry Pi 3 Spec Page
- Raspberry Pi 3 Starter Kit Hookup Guide

#### **Kit Includes:**

- Raspberry Pi 3
- SparkFun Pi Wedge (Preassembled)
- SparkFun FTDI Basic Breakout 3.3V
- Breadboard Full-Size (Bare)
- Pi Tin for the Raspberry Pi Black
- 16GB microSD (Preloaded with OS)
- microSD USB Reader
- Red, Blue, Yellow, and Green Tactile Buttons
- Red, Blue, Yellow, and Green LEDs
- Resistor 330 Ohm 1/6 Watt PTH 20 pack
- Raspberry Pi GPIO Ribbon Cable 40-pin, 6"
- SparkFun USB Mini-B Cable 6 Foot
- Wall Adapter Power Supply 5.25V DC 2.4A (USB Micro-B)
- Jumper Wires Premium 6" M/F 10 Pack
- Jumper Wires Standard 7" M/M 30 Pack

- Datasheet
- Hookup Guide
- gPIo Tutorial
- Raspberry Pi SPI and I<sup>2</sup>C Tutorial
- Pi Wedge Guide
- Raspbian Download
- Pi Raspbian and DOOM Tutorial



# **SparkFun Analog/Digital MUX Breakout – CD74HC4067**

#### **Documents:**

- Schematic
- Eagle Files
- Datasheet
- bildr blog CD74HC4067
- GitHub



# Serial Enable 16x2 LCD - Red on Black 5v

#### **Documents:**

- Schematic
- Eagle Files
- SerLCD v2.5 Datasheet
- Firmware
- Quickstart Guide
- Dimensional Drawing
- Detailed Drawing and Pinout



# **SparkFun Soil Moisture Sensor**

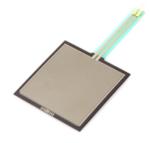
- Schematic
- Eagle Files
- Hookup Guide
- GitHub



# **Force Sensitive Resistor – Square**

#### **Documents:**

- FSR Integration Guide
- Bildr Tutorial



# Flex Sensor 2.2"

#### **Documents:**

- Datasheet
- ITP Sensor Workshop
- Quickstart Guide
- Bildr Tutorial



# <u>Piezo Vibration Sensor – Large with Mass</u>

#### **Documents:**

- <u>Datasheet</u> (LDT0-028K)
- Hookup Guide
- Technical manual



## **Ultrasonic Sensor HC-SR04**

- Datasheet
- Example Code



# **Humidity and Temperature Sensor – RHT03**

#### **Documents:**

- Datasheet
- Example Code
- GitHub



# Raspberry Pi 5mp Camera Board Module

#### **Documents**

• <u>Camera Module Description and</u> Example Usage



# EasyVR Shield 3.0 – Voice Recognition Shield

- Documents:
  - User Manual
  - Beginners Tutorial
  - <u>EasyVR Commander</u> (Windows only)
  - Arduino Library
  - Product Page
  - Downloads Page
  - Product Video



# SparkFun Triple Axis Accelerometer Breakout – MMA8452Q

- Schematic
- Eagle Files
- Hookup Guide
- Datasheet (MMA8452Q)
- GitHub (Design Files & Example Code)
- GitHub (Library)

