

3.2.1 Raspberry Pi 3

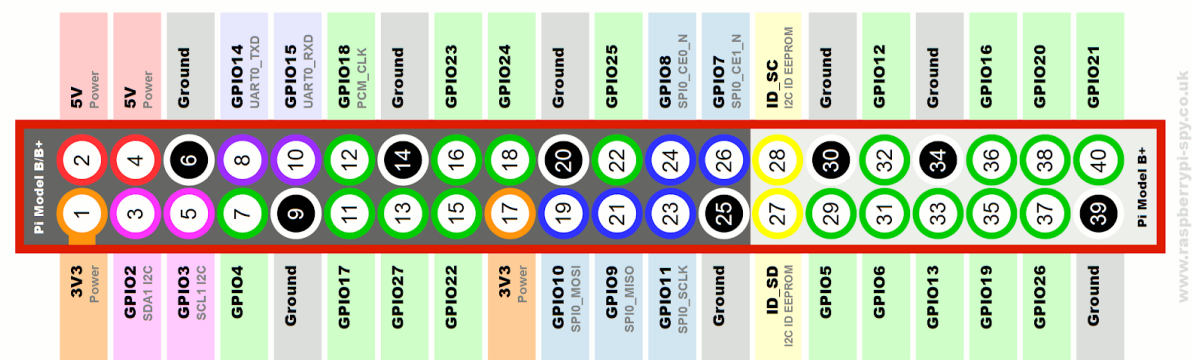
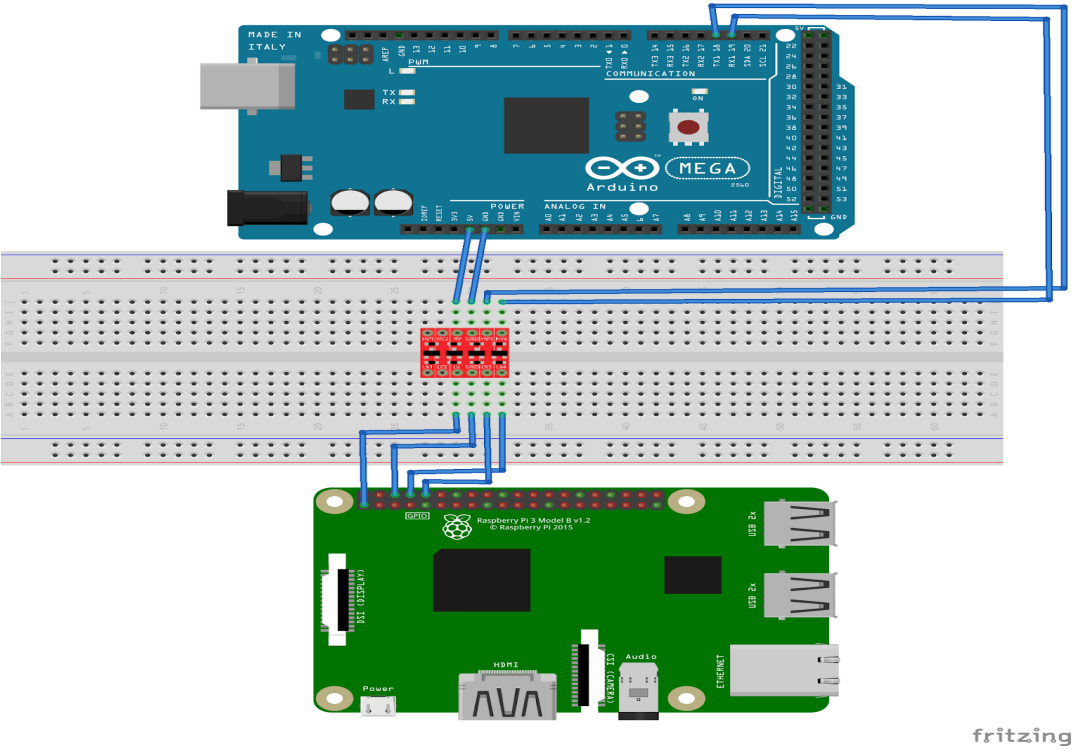


Figure 3.2.1.1 Raspberry Pi 3 Pinout

Raspberry Pi 3	Level Shifter
3V3 (Pin 1)	LV
Ground (Pin 6)	GND
GPIO14 (Pin 10)	LV3
GPIO15 (Pin 8)	LV4

Table 3.2.1.1 Pin Connection between Raspberry Pi 3 and Level Shifter (TXB0108PWR)



3.2.2 Arduino Mega

Arduino Mega	Level Shifter
5V	LV
GND	GND
TX1 (Pin 18)	HV3
RX1 (Pin 19)	HV4

Table 3.2.2.1 Pin Connection between Arduino Mega and Level Shifter (TXB0108PWR)

Arduino Mega Pin Input	MPU 6050 Pin Input (back sensor)	MPU 6050 Pin Input (hand sensor)
5V (Yellow)	VCC	VCC
GND (Gray)	GND	GND
SCL 21 (Blue)	SCL	SCL
SDA 20 (Gray)	SDA	SDA
3.3V	ADO	-
GND	-	ADO
Pin 2 (Interrupt)	INT	-
Pin 3 (Interrupt)	-	INT

Table 3.2.2.2 Pin Connection between Arduino Mega and MPU 6050 GY-521

(By default, when ADO = 1 (connected to 3.3V), its address changes to 0x69 instead of 0x68 [6].)

Arduino Mega	Current Sensor	Battery
5V	VCC, VIN+	-
GND	GND	GND
-	VIN-	5V
Pin A0	VOUT	-

