

1Wire = pins 17(3.3V), 37(DATA), 20(GND) - there is a 4.7Kohm resistor between 3.3V and Data, after this just use data (parasitic power)

Momentary switch = Pins 39 (GND), 40(trigger), 38(LED), 34(LED GND)

Momentary Shutdown switch

Connect up the momentary switch across Pin 39 and 40, if the led has a separate ground then connect up the LED using 38 and 34. Watch polarity.

In the file /boot/config.txt (use sudo nano /boot/config.txt)

Add the following:

```
#on/off switch
dtoverlay=gpio-shutdown,gpio_pin=21
dtoverlay=gpio-poweroff,gpiopin=20,active_low="y"
```

GPIO numbers are different than the pin number so make sure you use GPIO20(actual pin 38) and GPIO21 (actual pin 40)

The behavior you will see is that when Pi is booted up the LED will come on. When the momentary switch is pressed, the PI will shutdown and once safely down, the LED will power off. the main power can be turned off safely now

IMU board

The IMU Board we have is the BerryIMU (<https://ozzmaker.com/product/berryimu-accelerometer-gyroscope-magnetometer-barometricaltitude-sensor/>). the device can either be mounted directly or remotely. if directly, it does cover some of the other pins and not allow access to other 3.3v pins. we started off direct mounted and have moved to remote.

The Board includes an pitch and roll as well as a compass, pressure and temperature sensor

Configuration - I2C

Go into >Openplotter>Settings and then hit refresh.

In the list of openplotter Apps, go down to I2C Sensors and select then install, additionally do the same for Pypilot.

Now go to >Preferences>Rasp Pi Config and go to the interfaces tab, enable I2C.

Got to >Openplotter>I2C and add all sensors providing a name for each that makes sense: