Rapberry Pi

Function :

1) Interface to MPU6050 over I2c and query acceleration and gyroscope registers every 10 ms

2) Publish acceleration data over MQTT qos 0.

Installation(Bluemix compatible)

1) curl –LO https://github.com/ibm-messaging/iot-raspberrypi/releases/download/1.0.2.1/iot\_1.0-2\_armhf.deb

2) sudo dpkg –i iot\_1.0-2\_armhf.deb

3) Install libssl to complete the above step

4) Download the python client at https://github.com/ibm-messaging/iot-python

5)Install the client library using pip :pip install ibmiotf

Start IoT Service on bluemix

1) sudo service iot stop

2) sudo service iot start

3) sudo service iot status

4) sudo service getdeviceid

5) create device.cfg file at sudo nano /etc/iotsample-raspberrypi/device.cfg

The file should have the following contents:

org=<OrgID>

type=<devicetype>

id=<unique ID> //Mostly mac address without the colons

auth-method=token or use-token-auth

auth-token=<authToken> //assigned by bluemix for device

5)sudo service iot restart

App Configuration

1) To connect ibmiotf.application.Client to bluemix, following options are used

org=<OrgID>

type=<app-type> //for ex: standalone

id=<unique ID> //id unique for an app , can be anything

auth-method=token or use-token-auth

auth-token=<authToken> //assigned by bluemix for app

Installation(Sensing with MPU)

1) sudo apt install python-smbus

2) pip install mpu6050-raspberrypi

3) sudo apt install git

How to run?

sudo python client.py

Note : you may have to change the options parameters based on your credentials