**IMU Issue**

**Problem:**  
Accelerometer and gyro values being read from IMU return only zeros

**Background:**  
-The MPU6050[[link]](https://cdn.sparkfun.com/datasheets/Components/General%20IC/PS-MPU-6000A.pdf) is used on the glove module and accessed by the RFduino[[link]](http://www.rfduino.com/product/rfd22301-rfduino-ble-smt/index.html) via a I2C interface.

-The required software initialization and configuration for the MPU6050 is verified through the use of a MPU6050 breakout board from sparkfun[[link]](https://www.sparkfun.com/products/11028).

-The WHO\_AM\_I register of the MPU6050 mounted on the glove is successfully read and verified as indicated by the IMU register map[[link]](https://www.olimex.com/Products/Modules/Sensors/MOD-MPU6050/resources/RM-MPU-60xxA_rev_4.pdf).  
  
-On reading the accel and gyro registers, the onboard MPU6050 returns all zeroes.

**Steps taken to mitigate issue**- Verified all hardware connections to the onboard MPU6050

- An external MPU6050 breakout board is linked to the onboard I2C bus with different I2C bus address. The external IMU is successfully initialized and proper accel/gyro values are returned. On pinging onboard MPU6050 address, zeros are returning for the accel/gyro, but the WHO\_AM\_I register is correctly returned.

- On checking schematics, the Vlogic pin for the onboard IMU wasn’t connected to Vcc as recommended. This will be changed in the subsequent design

- A breakout board for the MPU6050 was made from the SparkFun-MPU6050 schematics[[link]](https://www.sparkfun.com/products/11028) using PCB milling. We are having trouble getting the IMU running on this and are proceeding to revising this breakout board.