Problem statement (experiment 3)

June 1, 2020

Develop a program for Arduino development board to receive data from gy-521 and put it in to estimate the angle around the x axis.

(Maximum force on any axis is +/- 2g and maximum angular velocity for any axis is 1000 degree/sec)

(Set I2C frequency 400 kHz and sampling rate of more than 500 Hz)

(Use wire library to take data on I2C bus)

Task 1: List out the register to be modified to set sensitivity and configure registers

Task 2: complete the skeleton programme “mpu_reading_data.ino” to extract required data from MPU 6050.

Task 3: write logic to calculate angle from data and return the data from the function and print them in to the serial monitor.

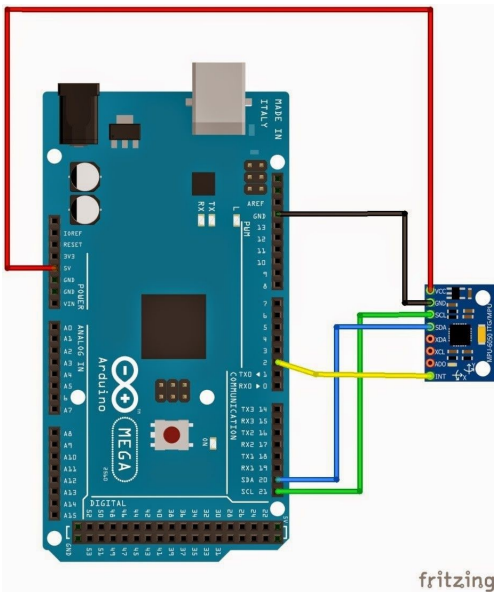

Figure 1: Connection diagram (ref. google images)