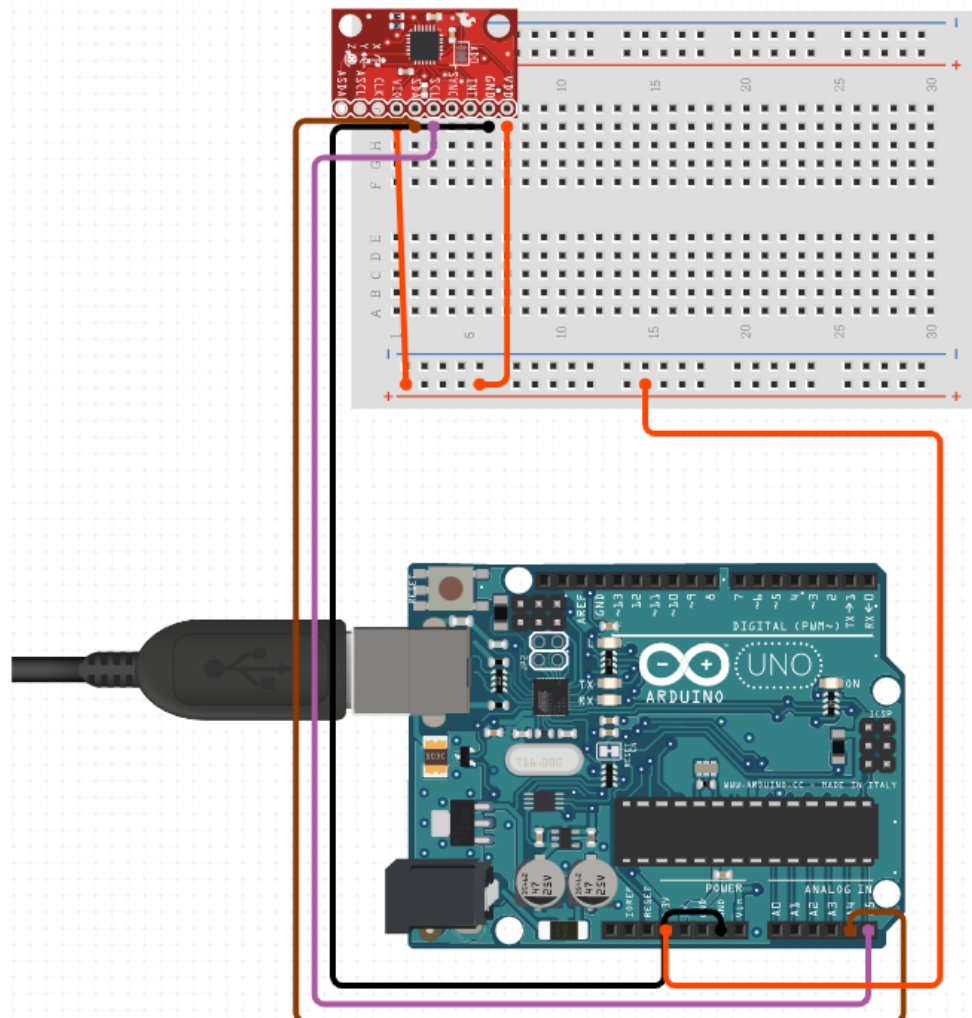


Gyro & Accelerometer Sensor Report (Plane Simulator) on the basic project using Arduino and Processing s/w.

Intro:

- This project (Plane Simulator) is to study and experienced on how to implement the gyro and accelerometer into the real life situation.
- Image [snip below](#) show the 2d circuit connection design consist of:
 - ✓ Jumper female to male x5
 - ✓ Mpu6050 accelerometer & gyro
 - ✓ Arduino Uno R3
- The Pin Connection:
 - ✓ Vcc - 5V
 - ✓ GND - Gnd
 - ✓ Sda - A4
 - ✓ Sdc - A5
 - ✓ INT - D2



- Connect the Arduino board to the PC.
- Install I2CDEV and MPU6050 library .
- Insert the Code in Arduino IDE (Integrated Development Environments) on link below:
[MPU6050-Sensor/MPU6050_AKIM.ino at main · akimaziz/MPU6050-Sensor \(github.com\)](https://github.com/akimaziz/MPU6050-Sensor)

- Please make sure to install the library first before run the program.
- After Install, proceed to upload process.
- Exit the Arduino IDE application in the windows.

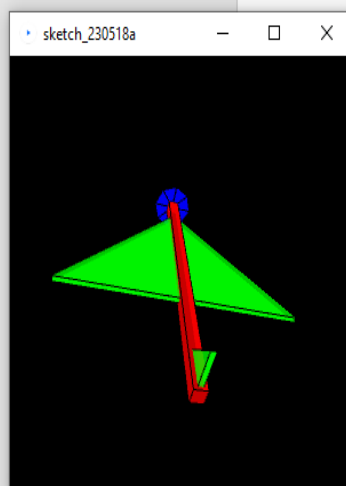
- Next, open the processing 4.2 IDE and download a few library for the simulation plane shape:

- ✓ toxiclib_p5
- ✓ toxiclibscore

- C:\Users\user\Documents\Processing\libraries

(ALL STEP IS NOT 100% DETAIL, try to search and discover by yourself)

➤ Run the Code!



➤ Run the Code!

```

37 // NOTE: requires ToxicLibs to be installed in order to run properly.
38 // 1. Download from http://toxiclibs.org/downloads
39 // 2. Extract into [userdir]/Processing/libraries
40 // (location may be different on Mac/Linux)
41 // 3. Run and bask in awesomeness
42
43 ToxicLibsSupport gfx;
44
45 Serial port; // The serial port
46 char[] teapotPacket = new char[14]; // InvenSense Teapot packet
47 int serialCount = 0; // current packet byte position
48 int synced = 0;
49 int interval = 0;
50
51 float[] q = new float[4];
52 Quaternion quat = new Quaternion(1, 0, 0, 0);
53
54 float[] gravity = new float[3];
55 float[] euler = new float[3];

```

Console

```

$B<J0w000CS
ypr -6.17 -8.59 36.83
$B<K0x0i0AT
ypr -6.16 -8.56 36.83
$B<LB0é0AU

```

Updates 1