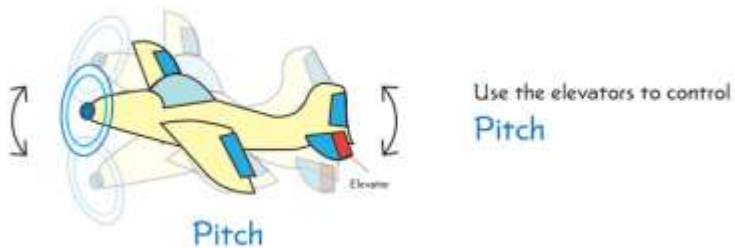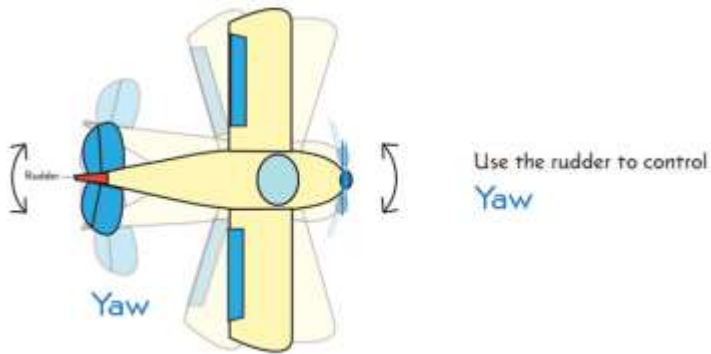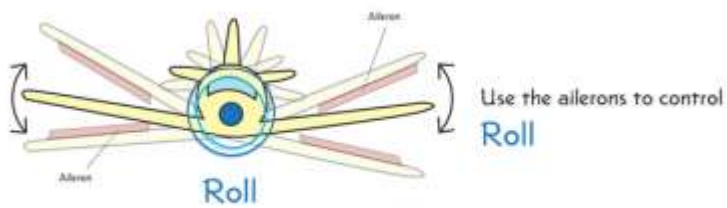# MPU6050 (Roll,Pitch and Raw) Analysis

Y axis အတိုင်းလည်ပတ်တာကို Roll လို့ခေါ် တယ်။

X axis အတိုင်းလည်ပတ်တာကို Yaw လို့ခေါ် တယ်။

Z axis အတိုင်းလည်ပတ်တာကို Pitch လို့ခေါ် တယ်။

```
#include<Wire.h>

const int MPU_addr=0x68;  // I2C address of the MPU-6050

int16_t AcX,AcY,AcZ,Tmp,GyX,GyY,GyZ;

void setup(){

  Wire.begin();

  Wire.beginTransmission(MPU_addr);
```

```
  Wire.write(0x6B);  // PWR_MGMT_1 register

  Wire.write(0);     // set to zero (wakes up the MPU-6050)

  Wire.endTransmission(true);

  Serial.begin(9600);

}

void loop(){

  Wire.beginTransmission(MPU_addr);

  Wire.write(0x3B);  // starting with register 0x3B (ACCEL_XOUT_H)

  Wire.endTransmission(false);

  Wire.requestFrom(MPU_addr,14,true);  // request a total of 14 registers

  AcX=Wire.read()<<8|Wire.read();  // 0x3B (ACCEL_XOUT_H) & 0x3C (ACCEL_XOUT_L)

  AcY=Wire.read()<<8|Wire.read();  // 0x3D (ACCEL_YOUT_H) & 0x3E (ACCEL_YOUT_L)

  AcZ=Wire.read()<<8|Wire.read();  // 0x3F (ACCEL_ZOUT_H) & 0x40 (ACCEL_ZOUT_L)

  Tmp=Wire.read()<<8|Wire.read();  // 0x41 (TEMP_OUT_H) & 0x42 (TEMP_OUT_L)

  GyX=Wire.read()<<8|Wire.read();  // 0x43 (GYRO_XOUT_H) & 0x44 (GYRO_XOUT_L)

  GyY=Wire.read()<<8|Wire.read();  // 0x45 (GYRO_YOUT_H) & 0x46 (GYRO_YOUT_L)

  GyZ=Wire.read()<<8|Wire.read();  // 0x47 (GYRO_ZOUT_H) & 0x48 (GYRO_ZOUT_L)

  Serial.print("AcX = "); Serial.println(AcX);

  Serial.print(" | AcY = "); Serial.println(AcY);

  Serial.print(" | AcZ = "); Serial.println(AcZ);
```

```
  Serial.print(" | Tmp = "); Serial.println(Tmp/340.00+36.53);  //equation for temperature in
degrees C from datasheet

 Serial.print(" | GyX = "); Serial.println(GyX);

 Serial.print(" | GyY = "); Serial.println(GyY);

 Serial.print(" | GyZ = "); Serial.println(GyZ);

 delay(333);

}
```