// MPU-6050 Short Example Sketch

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\* VCC 5V

\* SCL -> A5

\* SDA -> A4

\* INT -> DIGL2

\*/

#include<Wire.h>

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

int16\_t AcX,AcY,AcZ,GyX,GyY,GyZ;

int timeCounter = 0;

int X;

int Y;

int Z;

int sen = 50;

void setup(){

delay(200);

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);

pinMode(3, OUTPUT);

digitalWrite(3, HIGH);

digitalWrite(3, LOW);

digitalWrite(3, HIGH);

}

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)

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)

AcX = abs(floor(AcX/100));

AcY = abs(floor(AcY/100));

AcZ = abs(floor(AcZ/100));

if(timeCounter == 0){

X = AcX;

Y = AcY;

Z = AcZ;

}

if(abs(AcX - X) >= sen || abs(AcY - Y) >= sen || abs(AcZ - Z) >=sen){

digitalWrite(3, LOW);

delay(10000);

digitalWrite(3, HIGH);

delay(4000);

}

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

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

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

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

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

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

Serial.print("----" + X); Serial.print(", "+ Y); Serial.print(", " + Z);

delay(100);

timeCounter++;

}

int timer = 300;

int x = 0;

int count = 0;

void setup() {

for(int i = 2; i<6; i++){

pinMode(i, OUTPUT);

}

pinMode(6, INPUT\_PULLUP);

pinMode(7, INPUT\_PULLUP);

}

void loop() {

if((digitalRead(6) == LOW || digitalRead(7) == LOW || x == 1) && count != 66){

for(int u = 2;u<6;u++){

if(u%2 ==0){

digitalWrite(u, HIGH);

}else{

digitalWrite(u,LOW);

}

}

delay(timer);

for(int v =2; v<6;v++){

if(v%2 != 0){

digitalWrite(v, HIGH);

}else{

digitalWrite(v, LOW);

}

}

delay(timer);

x = 1;

count++;

if(count == 66){

for(int k = 2;k<6;k++){

digitalWrite(k, LOW);

}

}

}

}