#include<Wire.h>

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

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

int sensorValue = 0; //6050 value

int throttle = 0; // throttle value

int valt = 0;

int r;

int vall=0;

int valr=0;

void setup()

{

 Serial.begin(9600);

 Wire.begin();

 Wire.beginTransmission(MPU);

 Wire.write(0x6B); // PWR\_MGMT\_1 register

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

 Wire.endTransmission(true);

 pinMode(7, INPUT);

 pinMode(4, OUTPUT);

digitalWrite(4, HIGH);

 //motor pins

 pinMode(5, OUTPUT); //mot right +v

 pinMode(6, OUTPUT); //mot right -V

 pinMode(9, OUTPUT); //mot left -v

 pinMode(10, OUTPUT); //mot right +v

 //motor pins

}

void loop()

{

 throttle = analogRead(A0) ;

 r = digitalRead(12);

 Wire.beginTransmission(MPU);

 Wire.write(0x3B); // starting with register 0x3B (ACCEL\_XOUT\_H)

 Wire.endTransmission(false);

 Wire.requestFrom(MPU, 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)

 Tmp = Wire.read() << 8 | Wire.read(); // 0x41 (TEMP\_OUT\_H) & 0x42 (TEMP\_OUT\_L)

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

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

 Serial.print(" | Tmp = "); Serial.print(Tmp / 340.00 + 36.53);

 Serial.print("pin="); Serial.print(r);//equation for temperature in C

 Serial.print(" throttel value = "); Serial.println(throttle);

 sensorValue = AcX;

 if (throttle<170)

 {

 valr = map(AcY, -1800, -4000, 0, 255);

 vall = map(AcY, 1800, 4500, 0, 255);

 if ( AcY < -1800)

 {

 analogWrite(5, LOW );

 analogWrite(6, 1.25\*

 +3

 valr);

 analogWrite(9, LOW);

 analogWrite(10, LOW);

 }

 else if (AcY > 1800)

 { analogWrite(5, LOW );

 analogWrite(6, LOW);

 analogWrite(9, LOW);

 analogWrite(10, vall);

 }

 else

 { analogWrite(5, LOW );

 analogWrite(6, LOW);

 analogWrite(9, LOW);

 analogWrite(10, LOW);

 }

 }

 else

{ if (throttle > 165)

 { valt = map(throttle, 165, 535, 0, 255);

 analogWrite(5, LOW );

 analogWrite(6, 1.25\*valt);

 analogWrite(9, LOW);

 analogWrite(10, valt);

 }

 }

 delay(300);

}