

### **SAMPLE CODE:**

```
#include<Wire.h>

const int MPU = 0x68;
int16_t AcX, AcY, AcZ, Tmp, GyX, GyY, GyZ;
const int MPU1 = 0x69;
int16_t BcX, BcY, BcZ, Tmp1, BGyX, BGyY, BGyZ;
int minVal = 265;
int maxVal = 402;
double x;
double y;
double z;
void setup ()
{
  Serial.begin(9600);
  Serial.println("CLEARDATA");
  Serial.println("LABEL, X, Y, Z");
  Serial.println("RESETTIMER");
  Wire.begin();
  Wire.beginTransmission(MPU);
  Wire.write(0x6B);
  Wire.write(0);
  Wire.endTransmission(true);
  delay (1000);
  Wire.begin();
  Wire.beginTransmission(MPU1);
  Wire.write(0x6B);
  Wire.write(0);
  Wire.endTransmission(true);
  delay (1000);
```

```

}
void loop ()
{
  Wire.beginTransmission(MPU);
  Wire.write(0x3B);
  Wire.endTransmission(false);
  Wire.requestFrom(MPU, 12, true);
  AcX = Wire.read() << 8 | Wire.read();
  AcY = Wire.read() << 8 | Wire.read();
  AcZ = Wire.read() << 8 | Wire.read();
  int xAng = map (AcX, minVal, maxVal, -90, 90);
  int yAng = map (AcY, minVal, maxVal, -90, 90);
  int zAng = map (AcZ, minVal, maxVal, -90, 90);
  x = RAD_TO_DEG * (atan2(-yAng, -zAng) + PI);
  y = RAD_TO_DEG * (atan2(-xAng, -zAng) + PI);
  z = RAD_TO_DEG * (atan2(-yAng, -xAng) + PI);
  //Serial.println(x);
  //Serial.println(y);
  // Serial.println(z);
  Serial.println((String)"DATA," + "," + x + "," + y + "," + z + ",");
  //Serial.print(x);
  // Serial.print(",");
  //Serial.print(y);
  //Serial.print(",");
  //Serial.print(z);
  // Serial.print(",");
  delay (1000);
}

```