

## Code pour faire tourner le cube sur -Z si il est sur une autre face 👍

```
#include <Servo.h>
#include <SparkFun_LIS2DH12.h>
#include <lis2dh12_reg.h>
#include <DFRobot_LIS2DH12.h>

DFRobot_LIS2DH12 acce(&Wire,0x18);
Servo moteur;
Servo myservo;
int pos_int = 75;

void setup() {
  moteur.attach(9); // attaches the servo on pin 9 to the Servo object
  moteur.write(100);
  myservo.attach(10);

  delay(500);
  moteur.write(0);
  delay(5000);
  Serial.begin(9600);

  //SETUP ACCELEROMETRE

  //Chip initialization
  while(!acce.begin()){
    Serial.println("Initialization failed, please check the connection and I2C
address settings");
    delay(1000);
  }
  //Get chip id
  Serial.print("chip id : ");
  Serial.println(acce.getID(),HEX);

  acce.setRange(/*Range = */DFRobot_LIS2DH12::eLIS2DH12_16g);
  acce.setAcquireRate(/*Rate = */DFRobot_LIS2DH12::eLowPower_10Hz);
  Serial.print("Acceleration:\n");
  delay(1000);
}

void loop() {
  myservo.write(pos_int);
  //capter si on est sur la face -Z ou pas
  //Get the acceleration in the three directions of xyz
  long ax,ay,az;
  //The measurement range can be ±100g or ±200g set by the setRange() function
```

```
ax = acce.readAccX();//Get the acceleration in the x direction
ay = acce.readAccY();//Get the acceleration in the y direction
az = acce.readAccZ();//Get the acceleration in the z direction
//Print acceleration
Serial.print("Acceleration x: ");
Serial.print(ax);
Serial.print(" mg\t y: ");
Serial.print(ay);
Serial.print(" mg\t z: ");
Serial.print(az);
Serial.println(" mg");
const float threshold = 800; // Seuil pour distinguer les orientations (proche
de 9.8 m/s2)
```

```
String detectedFace = "";
```

```
if (ax > threshold) {
    detectedFace = "Face +X";
    Serial.print("Face +X");
}
else if (ax < -threshold) {
    detectedFace = "Face -Y";
    Serial.print("Face +Y");
}
else if (ay > threshold) {
    detectedFace = "Face +Y";
    Serial.print("Face +Y");
}
else if (ay < -threshold) {
    detectedFace = "Face -Y";
    Serial.print("Face -Y");
}
else if (az > threshold) {
    detectedFace = "Face +Z";
    Serial.print("Face +Z");
}
else if (az < -threshold) {
    detectedFace = "Face -Z";
    Serial.print("Face -Z");
}
else {
    detectedFace = "Aucune face détectée";
}
delay(1000);

if (detectedFace != "Face -Z") {
```

```
moteur.write(600);  
delay(2000);  
moteur.write(0);  
}  
}
```