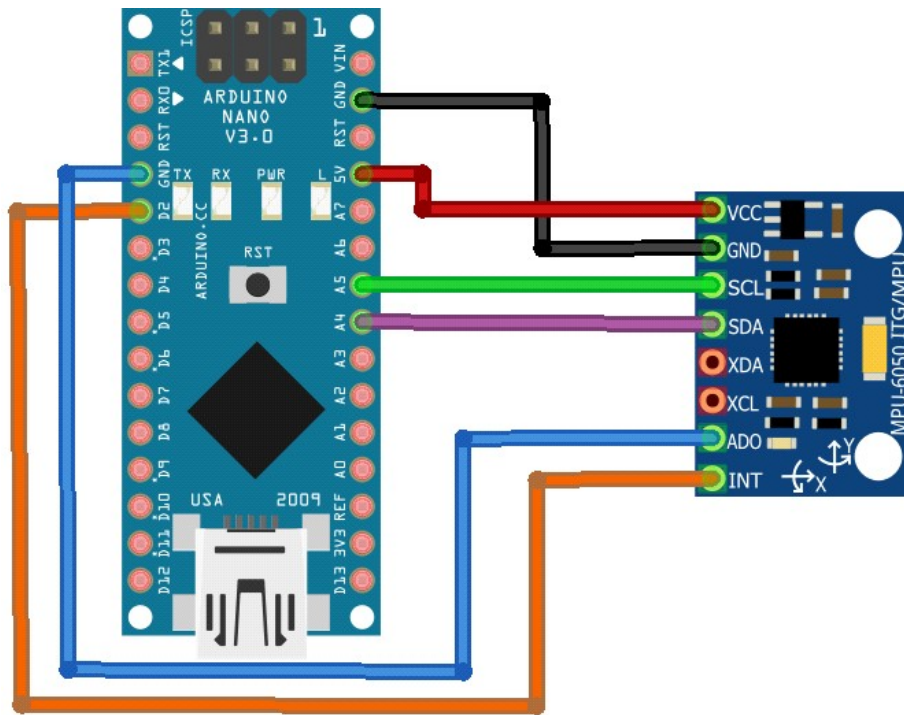


## Accelerometer sensor

### Plan de câblage / *Wiring diagram*



fritzing

### Liste du matériel requis / *List of required equipment:*

- x1 carte arduino nano v3.0
- x1 carte MPU6050
- x1 cable USB

### Informations complémentaires / *Further informations :*

Les fils rouges et noirs servent à l'alimentation de la sonde (rouge sur + et noir pour la masse). L'alimentation est en 5V. Les connexions à faire avec le MPU6050 sont décrites ci-dessous.

*The red and black wires are used to supply the probe (red on + and black for ground).  
The power supply is 5V. Connect the MPU6050 as described below.*

VCC → 5V | GND → GND | SCL → A5 | SDA → A4 | ADO → GND | INT → D2

## accelerometer.ino

---

```
#include "Wire.h" // Arduino Wire library
#include "I2Cdev.h" // Installer ces 2 librairies
#include "MPU6050.h"
MPU6050 accelgyro;

int16_t ax, ay, az; //mesures brutes

unsigned long time;
unsigned long time2 = 0;

int incomingByte = 0;
boolean value = false;

void setup() {
  Wire.begin(); //I2C bus
  Serial.begin(115200);

  // initialize device
  accelgyro.initialize();
  accelgyro.setFullScaleAccelRange(MPU6050_ACCEL_FS_2);//a modifier si besoin de plus de 2g
}

void loop() {
  while (value == false) {
    Serial.println(4);
    delay(50);

    while (Serial.available() >= 1) {
      incomingByte = Serial.read();
      if (incomingByte != -1) {
        value = true;
        time = micros();
      }
    }
  }

  if ((micros() - time - time2) > 4000) {
    time2 = micros() - time;
    accelgyro.getAcceleration(&ax, &ay, &az);
    //accelgyro.getRotation(&gx, &gy, &gz);

    Serial.print(time2); Serial.print(",");
    Serial.print(9.81 * ax / 16384); Serial.print(",");
    Serial.print(9.81 * ay / 16384); Serial.print(",");
    Serial.println(9.81 * az / 16384);
  }
}
```