

```

/***** ELETRODEX ELETRÔNICA *****/
***** Teste Acelerômetro ADXL345 *****/
***** posição de teste: *****/
***** *****/
***** | o o o o o o o | *****/
***** | *****/
***** | x_z | *****/
***** | |y | *****/
***** | O ADXL345 O | *****/
***** | *****/
***** Pino VCC no 5V arduino/ Pino GND no GND arduino/ *****/
***** Pino SDA no SDA do arduino, e SCL no SCL do arduino *****/

```

```

#include <Wire.h>
#include <Adafruit_Sensor.h>
#include <Adafruit_ADXL345_U.h>

```

```

Adafruit_ADXL345_Unified accel = Adafruit_ADXL345_Unified();

```

```

void setup(void)

```

```

{
  Serial.begin(9600);
  if(!accel.begin())
  {
    Serial.println("Nenhum sensor detectado! ");
    while(1);
  }
}

```

```

void loop(void)

```

```

{
  sensors_event_t event;
  accel.getEvent(&event);

```

```

double X = event.acceleration.x;
double Y = event.acceleration.y;
double Z = event.acceleration.z;

```

```

  Serial.print("X: "); Serial.print(X); Serial.print(" ");
  Serial.print("Y: "); Serial.print(Y); Serial.print(" ");
  Serial.print("Z: "); Serial.print(Z); Serial.print(" ");
  Serial.println("m/s^2 ");
  delay(500);

```

```

if (Z < -6) {
  Serial.println("Cabeça para baixo");
} else if ( (X < -8) &&(Z < 1) &&( Z > 0,01) ) {
  Serial.println("90° para Esquerda");
} else if ( (X >8)&& ((Z < 1) &&( Z > -5))) {
  Serial.println("90° para Direita");
} else if ( ((Y < -7)&&(Y > -10)) &&( Z >= -3) &&( Z <= 1) ) {
  Serial.println("90° para Frente");
} else if ( (Y >9) &&( Z > 0) &&( Z <= 5) ) {
  Serial.println("90° para Trás");
} else {
  Serial.println("Normal");
}

```

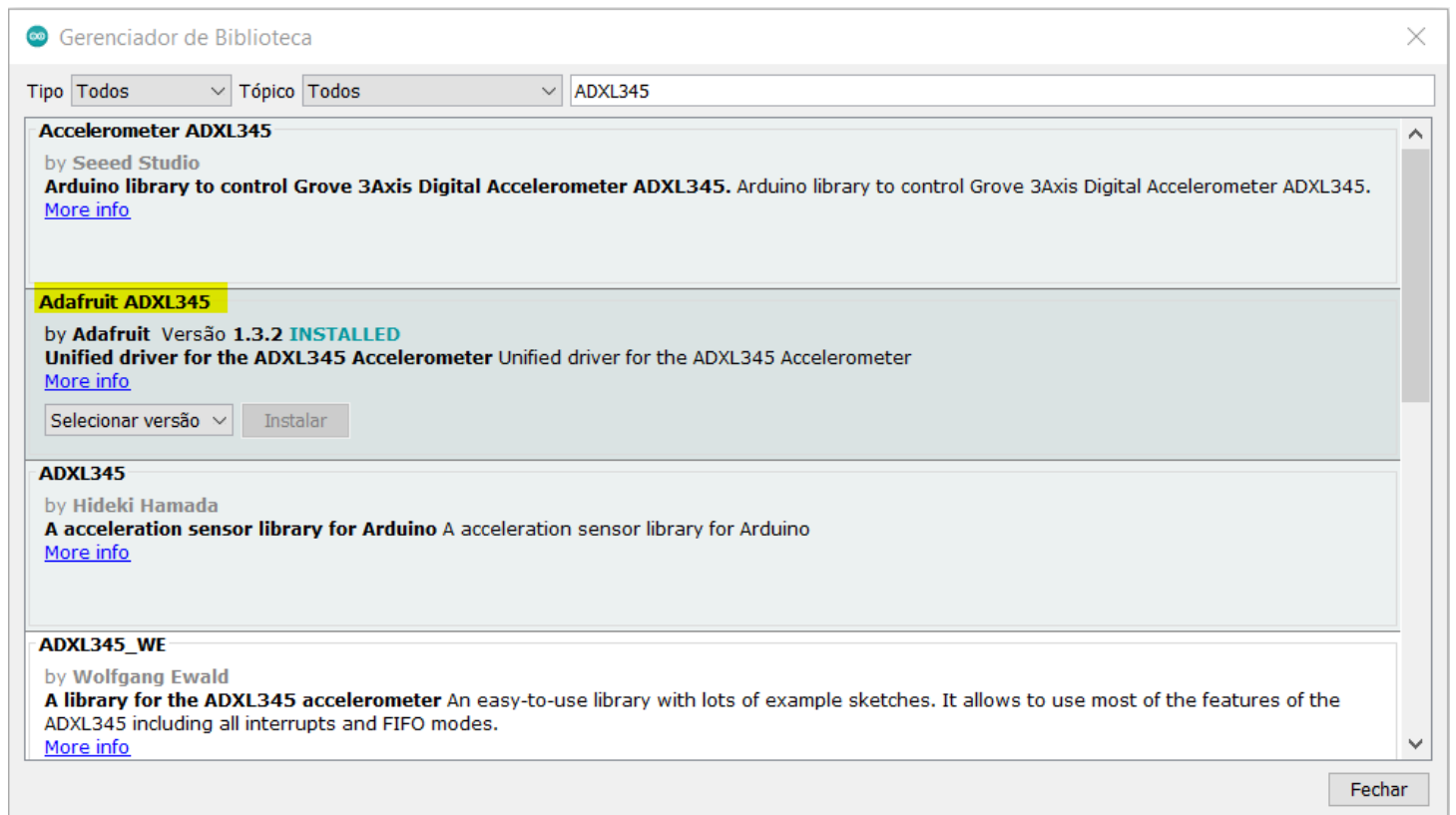
```

}

```

**Bibliotecas Utilizadas: Adafruit ADXL345, e Adafruit Unified Sensor:**

Em "Sketch / Incluir Biblioteca / Gerenciar Bibliotecas, digite Adafruit ADXL345 e clique em instalar da Adafruit ADXL345



Gerenciador de Biblioteca

Tipo Todos Tópico Todos ADXL345

**Accelerometer ADXL345**  
by Seeed Studio  
Arduino library to control Grove 3Axis Digital Accelerometer ADXL345. Arduino library to control Grove 3Axis Digital Accelerometer ADXL345.  
[More info](#)

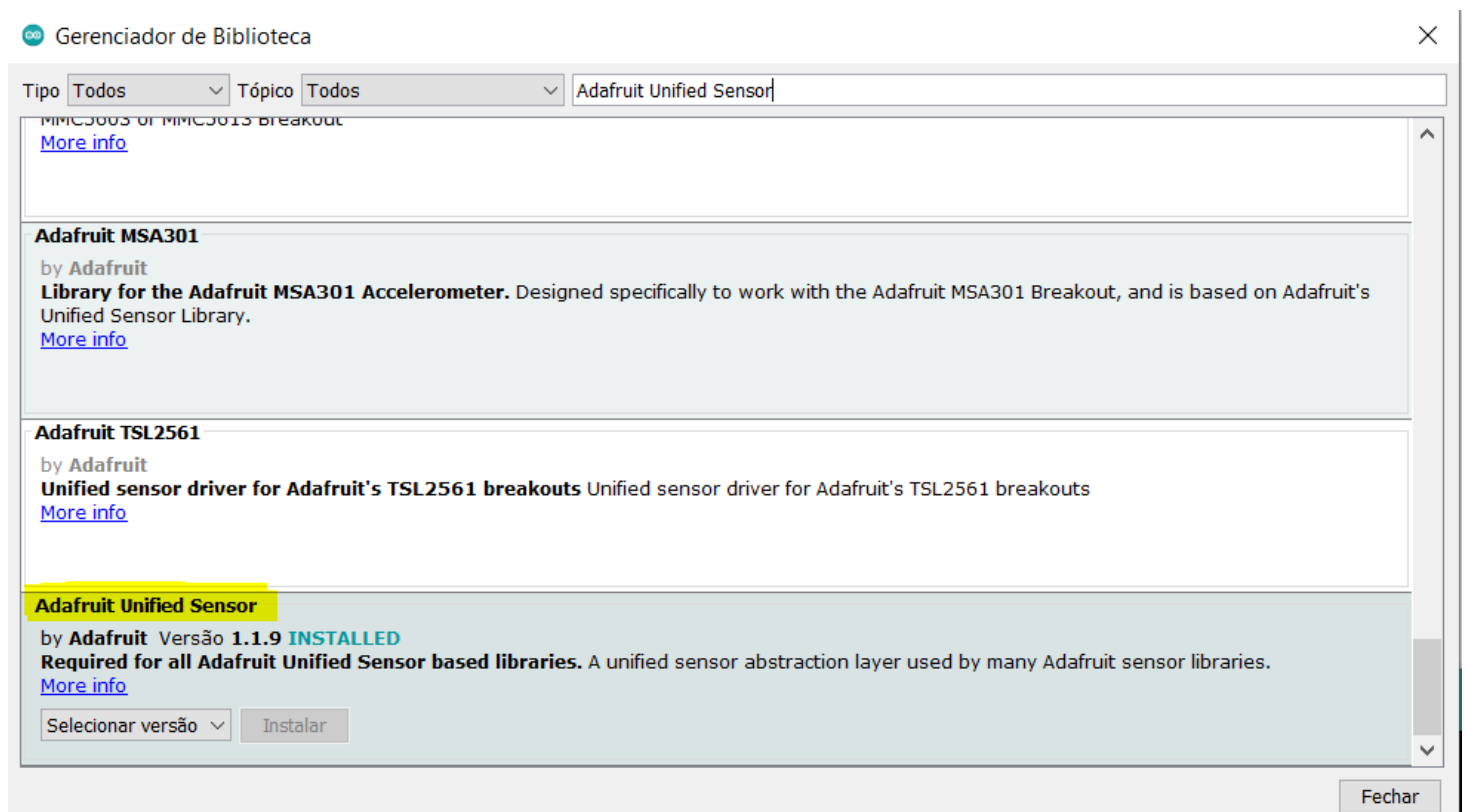
**Adafruit ADXL345**  
by Adafruit Versão 1.3.2 **INSTALLED**  
Unified driver for the ADXL345 Accelerometer Unified driver for the ADXL345 Accelerometer  
[More info](#)  
Selecione versão Instalar

**ADXL345**  
by Hideki Hamada  
A acceleration sensor library for Arduino A acceleration sensor library for Arduino  
[More info](#)

**ADXL345\_WE**  
by Wolfgang Ewald  
A library for the ADXL345 accelerometer An easy-to-use library with lots of example sketches. It allows to use most of the features of the ADXL345 including all interrupts and FIFO modes.  
[More info](#)

Fechar

Em seguida digite Adafruit Unified Sensor e clique em instalar.



Gerenciador de Biblioteca

Tipo Todos Tópico Todos Adafruit Unified Sensor

**Adafruit MSA301**  
by Adafruit  
Library for the Adafruit MSA301 Accelerometer. Designed specifically to work with the Adafruit MSA301 Breakout, and is based on Adafruit's Unified Sensor Library.  
[More info](#)

**Adafruit TSL2561**  
by Adafruit  
Unified sensor driver for Adafruit's TSL2561 breakouts Unified sensor driver for Adafruit's TSL2561 breakouts  
[More info](#)

**Adafruit Unified Sensor**  
by Adafruit Versão 1.1.9 **INSTALLED**  
Required for all Adafruit Unified Sensor based libraries. A unified sensor abstraction layer used by many Adafruit sensor libraries.  
[More info](#)  
Selecione versão Instalar

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