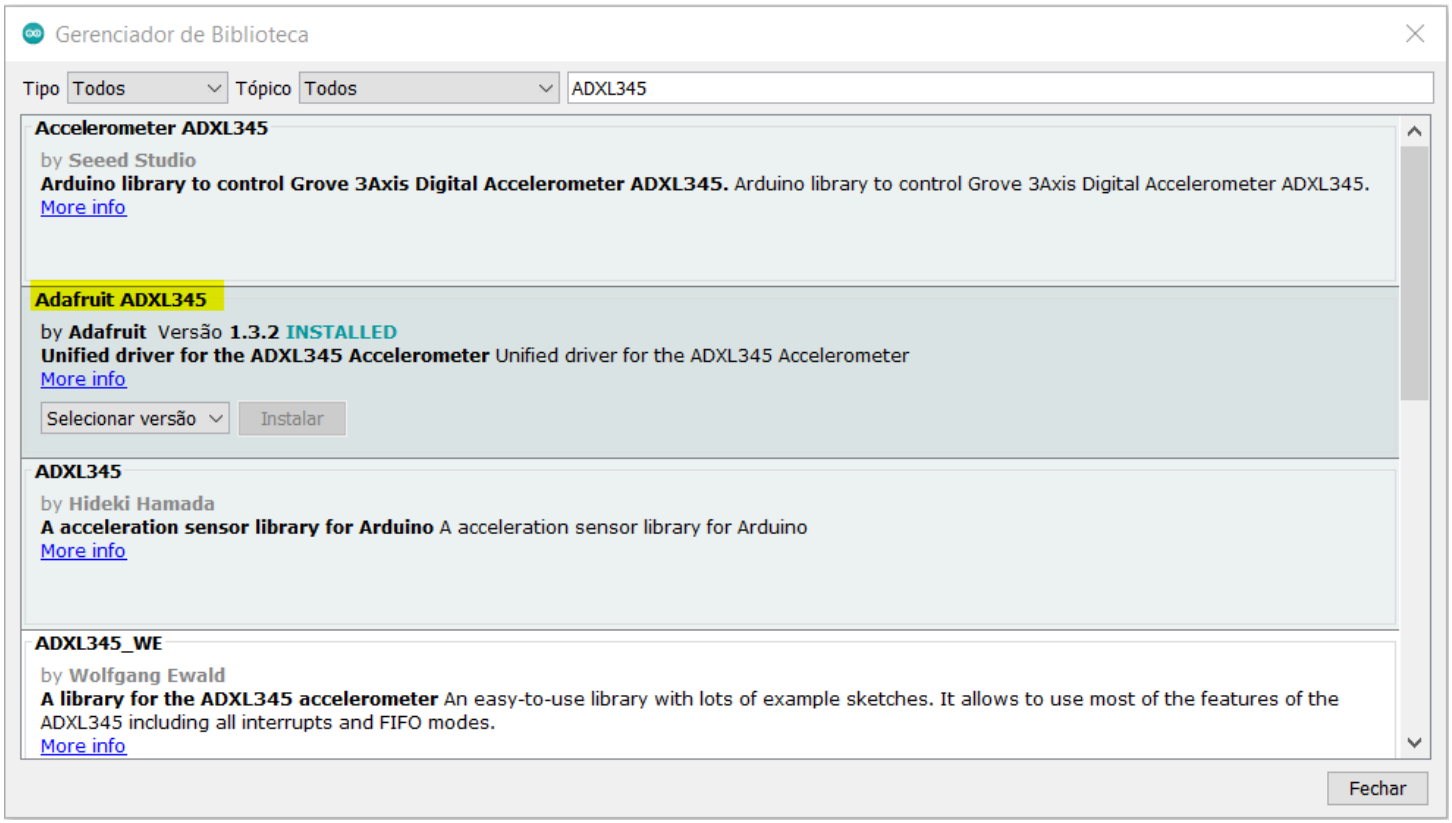
```
/*************** ELETRODEX ELETRÔNICA ******************************
***************** Teste Acelerômetro ADXL345*************************
************ posição de teste:*****************************************
******************************_________________*********************
***************************** | o 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



Em seguida digite Adafruit Unified Sensor e clique em instalar.