#include <Wire.h>

#include <Adafruit\_Sensor.h>

#include <Adafruit\_ADXL345\_U.h>

#define ADXL345\_ADDR (0x53) // I2C address for the ADXL345 accelerometer

Adafruit\_ADXL345\_Unified accel = Adafruit\_ADXL345\_Unified(12345);

void setup(void) {

Serial.begin(9600);

Serial.println("Accident Detection System");

if (!accel.begin()) {

Serial.println("Could not find a valid ADXL345 sensor, check wiring!");

while (1);

}

}

void loop(void) {

sensors\_event\_t event;

accel.getEvent(&event);

float acceleration\_magnitude = sqrt(event.acceleration.x \* event.acceleration.x +

event.acceleration.y \* event.acceleration.y +

event.acceleration.z \* event.acceleration.z);

Serial.print("Acceleration Magnitude: ");

Serial.println(acceleration\_magnitude);

// Add your accident detection logic here

// For example, trigger an alert if acceleration exceeds a certain threshold

delay(1000); // Delay for 1 second

}