#include <SoftwareSerial.h>

SoftwareSerial mySerial(2,3);

int trigPin = 9;

int echoPin = 10;

int vs =5;

int led = 7;

boolean triggered = false;

#include <String.h>

void setup()

{

mySerial.begin(9600); // the GPRS baud rate

Serial.begin(9600); // the GPRS baud rate

pinMode(trigPin, OUTPUT);

pinMode(vs, INPUT);

pinMode(echoPin, INPUT);

delay(1000);

}

void loop()

{

long duration, distance;

digitalWrite(trigPin,HIGH);

delayMicroseconds(1000);

digitalWrite(trigPin, LOW);

duration=pulseIn(echoPin, HIGH);

distance =(duration/2)/29.1;

long measurement =vibration();

float h = distance;

float t = measurement;

Serial.print(distance);

Serial.print(",");

Serial.println(measurement);

if((distance<=10)&&(measurement<=50))

{

digitalWrite(led, LOW);

}

else if((distance>10)&&(measurement>=50))

{

digitalWrite(led, HIGH);

} }

long vibration(){

long measurement=pulseIn (vs, HIGH);//wait for the pin to get HIGH and returns measurement

delay(1000);

return measurement;

}