Program:

```
#define ECHO_PIN 2
#define TRIG_PIN 3


void setup()  {
  Serial.begin(115200);
  pinMode(LED_BUILTIN, OUTPUT);
  pinMode(TRIG_PIN, OUTPUT);
  pinMode(ECHO_PIN, INPUT);
}


float readDistanceCM() {
  digitalWrite(TRIG_PIN, LOW);
  delayMicroseconds(2);
  digitalWrite(TRIG_PIN, HIGH);
  delayMicroseconds(10);
  digitalWrite(TRIG_PIN, LOW);
  int duration = pulseIn(ECHO_PIN, HIGH);
  return duration * 0.034 / 2;
}


void loop() {
  float distance = readDistanceCM()
bool isNearby = distance < 100;
digitalWrite(LED_BUILTIN, isNearby);


  Serial.print("Measured distance: ");
  Serial.println(readDistanceCM());


  delay(100);
}
```