Program no____9_____

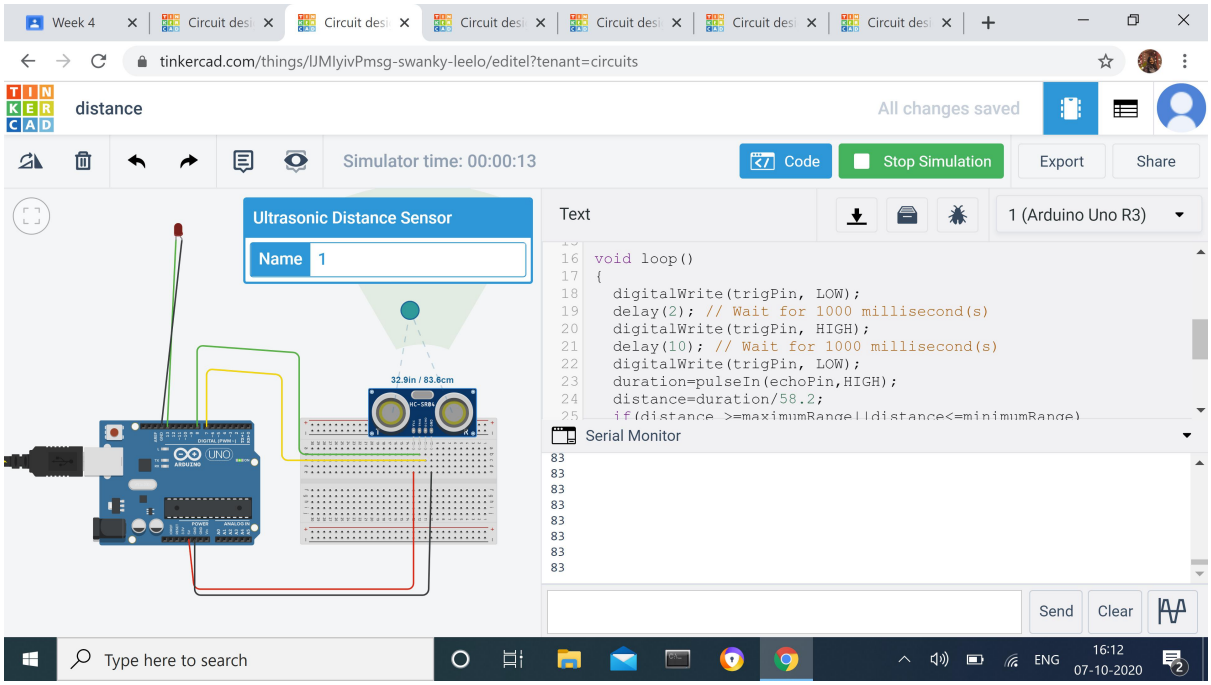
Program Title_____Distance detector_____

Aim : The light Fades as the sunlight increases

Hardware Required

- Arduino Board
  Ultrasonic distance sensor

Circuit Diagram



Code:

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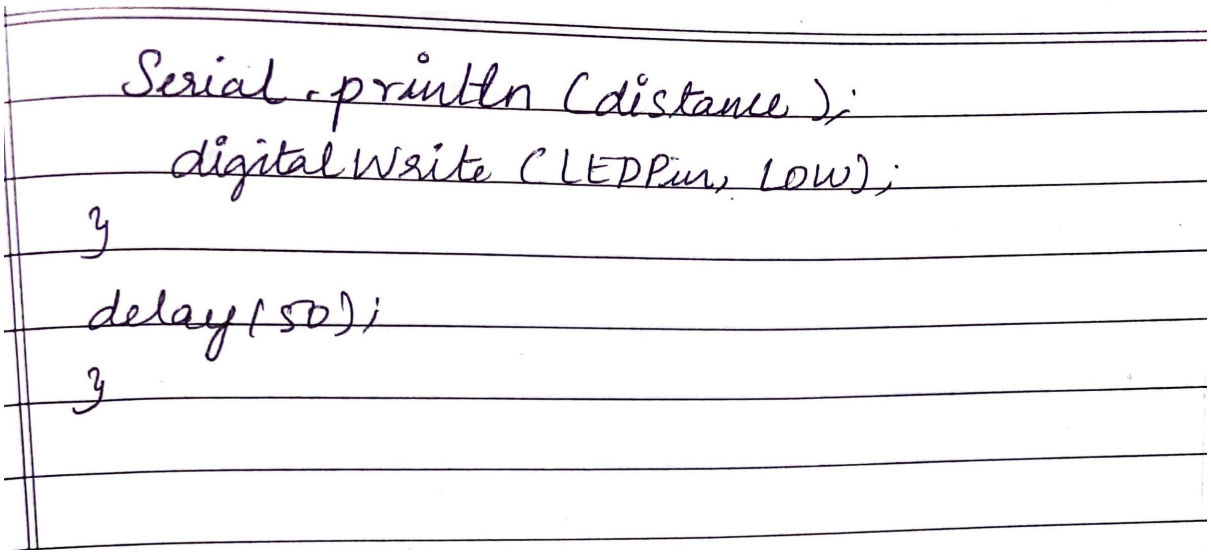
Experiment 10 → Distance Sensor

```
int echoPin = 7;
int trigPin = 8;
int LEDPin = 13;
int maximumRange = 200;
int minimumRange = 0;
long duration, distance;
void setup()
 {
 Serial.begin(9600);
 pinMode(trigPin, OUTPUT);
 pinMode(echoPin, INPUT);
 pinMode(LEDPin, OUTPUT);
}
void loop()
  {
   digitalWrite(trigPin, LOW);
  delay(2);
 digitalWrite(trigPin, HIGH);
  delay(10);
 digitalWrite(trigPin, LOW);
 duration = pulseIn(echoPin, HIGH);
 distance = duration / 58.2;
  if (distance >= maximumRange || distance
                          <= minimumRange)
 {
   Serial.println("-1");
   digitalWrite(LEDPin, HIGH);
 }
 else {
```



Observation /Output:

It will tell the distance in inches and centimetre.