Assignment 1

**CODE**

#define trigPin 4

#define echoPin 5

long duration;

int distance;

const int redPin = 10;

void setup(){

pinMode(trigPin, OUTPUT);

pinMode(echoPin, INPUT);

Serial.begin(9600);

}

void loop(){

digitalWrite(trigPin, LOW);

delayMicroseconds(2);

digitalWrite(trigPin, HIGH);

delayMicroseconds(10);

digitalWrite(trigPin, LOW);

duration = pulseIn(echoPin, HIGH);

distance = duration \* 0.034 / 2;

delay(2000);

Serial.print("Distance: ");

Serial.print(distance);

Serial.println(" cm");

if(distance <= 10){

analogWrite(redPin,255);

Serial.println("ON");

}

else{

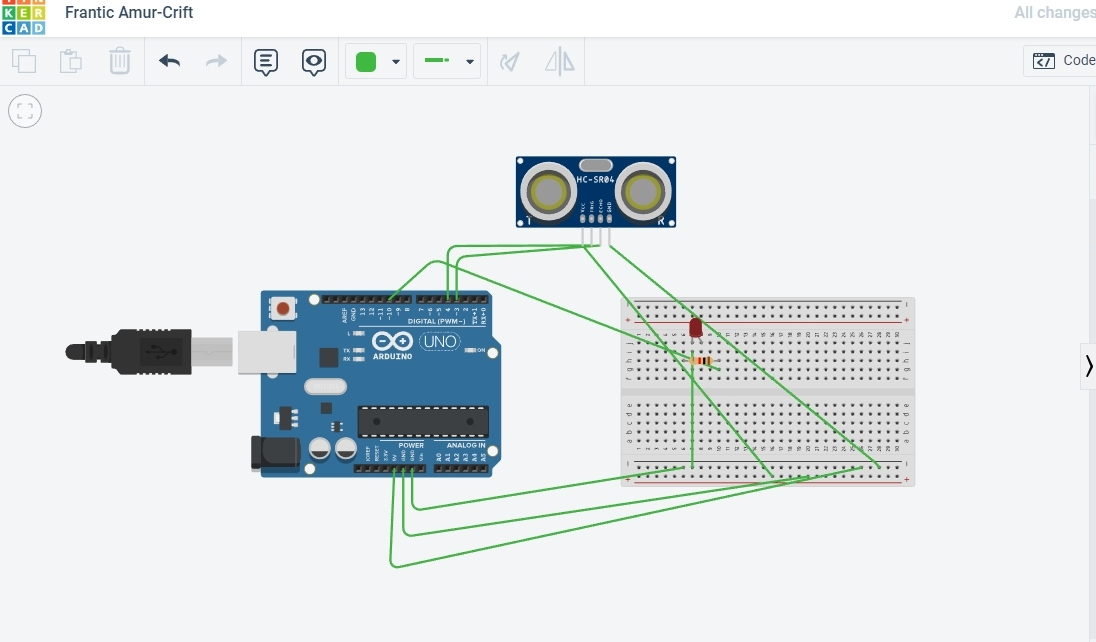
analogWrite(redPin,64);

Serial.println("partially ON");

}

}

**CIRCUIT DIAGRAM:**

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