ASSIGNMENT-1

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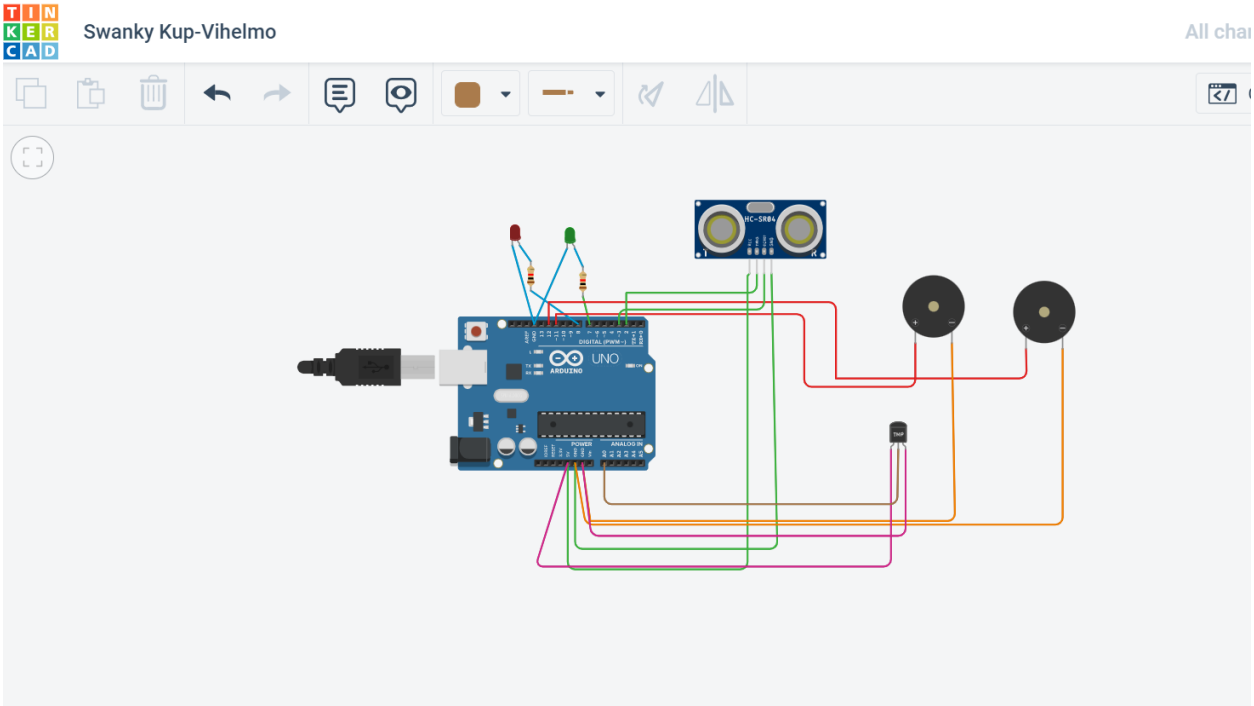
CIRCUIT IMAGE:



CODE FOR SIMULATION:

```
int t=2;

int e=3;

void setup()

{

  Serial.begin(9600);

  pinMode(t,OUTPUT);
```

```
  pinMode(e,INPUT);
  pinMode(12,OUTPUT);
}
void loop()
{
                                        //FOR ULTRASONIC SENSOR//
  digitalWrite(t,LOW);
  digitalWrite(t,HIGH);
  delayMicroseconds(10);
  digitalWrite(t,LOW);
  float dur=pulseIn(e,HIGH);
  float dis=(dur*0.0343)/2;
  Serial.print("Distance is: ");
  Serial.println(dis);
                                        //FOR LED ON//
  if(dis>=100)
  {
    digitalWrite(87,HIGH);
    digitalWrite(7,HIGH);
  }
                                      //FOR BUZZER - ULTRASONIC SENSOR//
  if(dis>=100)
  {
    for(int i=0;i<=30000;i=i+10)
    {
      tone(12,i);
```

```
    delay(1000);
    noTone(12);
    delay(1000);
  }
}
                                        //FOR TEMPERATE SENSOR//
    double a = analogRead(A0);
    double t=(((a/1024)*5)-0.5)*100;
    Serial.print("Temp Value: ");
    Serial.println(t);
    delay(1000);
                                    //FOR LED ON//
  if(t>=100)
  {
    digitalWrite(8,HIGH);
    digitalWrite(7,HIGH);
  }
                                    //FOR BUZZER - TEMPERATE SENSOR//
  if(if t>=100)
  {
    for(int i=0;i<=30000;i=i+10)
    {
      tone(12,i);
      delay(1000);
      noTone(112);
      delay(1000);
```

```
    }
  }
        //FOR LED OFF//
  if(t<100)
  {
    digitalWrite(8,LOW);
    digitalWrite(7,LOW);
  }
}
```