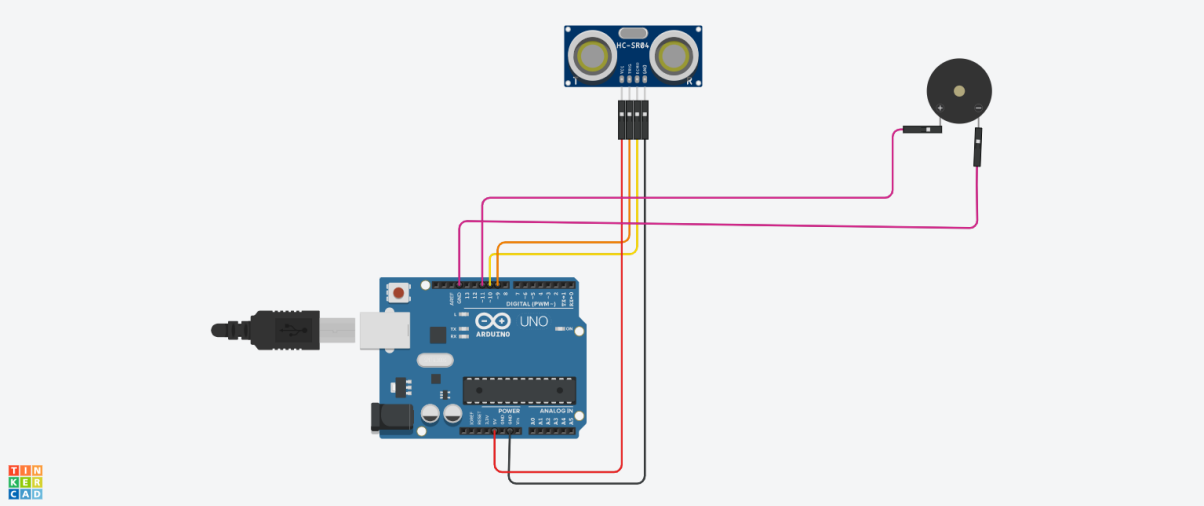
Circuit :



Code:-

```
// defines pins numbers
const int trigPin = 9;
const int echoPin = 10;
const int buzzer = 11;
const int ledPin = 13;

// defines variables
long duration;
int distance;
int safetyDistance;


void setup() {
pinMode(trigPin, OUTPUT); // Sets the trigPin as an Output
pinMode(echoPin, INPUT); // Sets the echoPin as an Input
pinMode(buzzer, OUTPUT);
pinMode(ledPin, OUTPUT);
Serial.begin(9600); // Starts the serial communication
}


void loop() {
// Clears the trigPin
digitalWrite(trigPin, LOW);
delayMicroseconds(2);

// Sets the trigPin on HIGH state for 10 micro seconds
```

```
digitalWrite(trigPin, HIGH);
delayMicroseconds(10);
digitalWrite(trigPin, LOW);

// Reads the echoPin, returns the sound wave travel time in microseconds
duration = pulseIn(echoPin, HIGH);

// Calculating the distance
distance= duration*0.034/2;

safetyDistance = distance;
if (safetyDistance >=51 && safetyDistance <75)
{
  digitalWrite(buzzer, HIGH);
  delay(75);
  Serial.print("bus");
  digitalWrite(buzzer, LOW);
  delay(75);
}
else if (safetyDistance <= 50){
  digitalWrite(buzzer, HIGH);
  Serial.print("buzzer on");
  digitalWrite(ledPin, HIGH);
}
else{
  digitalWrite(buzzer, LOW);
  digitalWrite(ledPin, LOW);
}

// Prints the distance on the Serial Monitor
Serial.print("Distance: ");
Serial.println(distance);

}
```

About:-

This is the project to help the blind. In this blind stick an ultrasonic sensor is fixed . If any object comes in front of the stick at a certain distance (75cm) the buzzer fixed to the Arduino will continuously produce sound with a delay . If the distance of the object is less than 50 the buzzer will make sound throughout till the object is moved