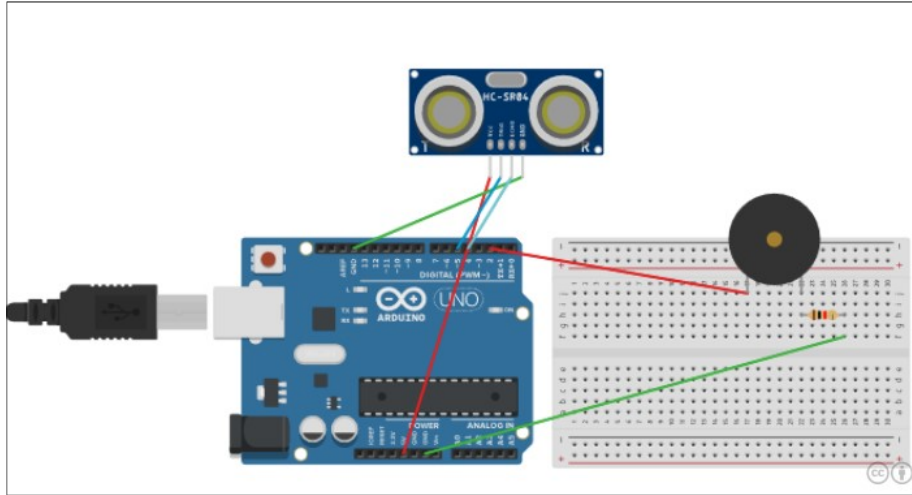


TP 8 - CAPTEUR ULTRASON ET BUZER : Radar de recul :



ULTRASON AVEC BUZER - PERENNES Philippe

Nom	Quantité	Composant
U1	1	Arduino Uno R3
PIEZ01	1	Élément piézoélectrique
DIST1	1	Capteur de distance par ultrasons
R1	1	1 kΩ Résistance

https://www.tinkercad.com/things/2y9as0MAtH2-ultrason-avec-buzer-perennes-philippe/editel?sharecode=eFv17pp5VL-oH405fUr7_tBRh58GABafJ50y8y0OMaw

```

1 long readUltrasonicDistance(int triggerPin, int echoPin)
2 {
3   pinMode(triggerPin, OUTPUT); // Clear the trigger
4   digitalWrite(triggerPin, LOW);
5   delayMicroseconds(2);
6   // Sets the trigger pin to HIGH state for 10 milliseconds
7   digitalWrite(triggerPin, HIGH);
8   delayMicroseconds(10);
9   digitalWrite(triggerPin, LOW);
10  pinMode(echoPin, INPUT);
11  // Reads the echo pin, and returns the sound wave travel time in microseconds
12  return pulseIn(echoPin, HIGH);
13 }
14
15 int counter;
16
17 void setup()
18 {
19   pinMode(8, INPUT);
20   Serial.begin(9600);
21   pinMode(2, OUTPUT);
22 }
23
24 void loop()
25 {
26   for (counter = 0; counter < 1000; ++counter)
27     if (0.01723 * readUltrasonicDistance(5, 4) < 40)
28       Serial.println(digitalRead(8));
29       digitalWrite(2, HIGH);
30     } else {
31       digitalWrite(2, LOW);
32     }
33   }
34 }
35 delay(10); // Delay a little bit to improve simulation

```