Link

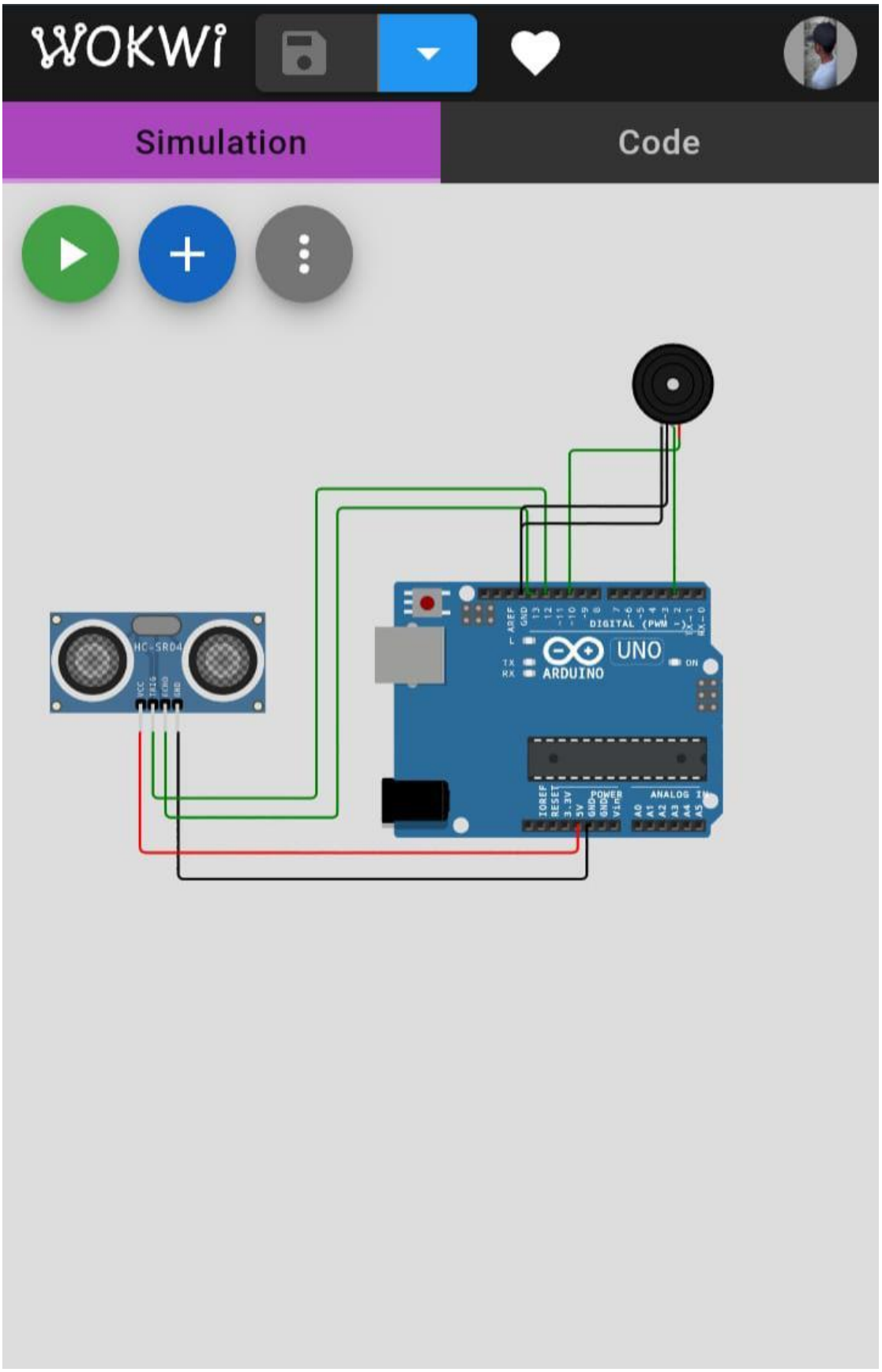
https://wokwi.com/projects/363044159274355713

Code

```
//define variables
#define trigerPin 12
#define echoPin 13
#define ledPin 2
#define speakerPin 10
#define pitch 262

double duration, distance;

void setup() {
  //setup for Sensor
  Serial.begin(9600);
  pinMode(trigerPin,OUTPUT);
  pinMode(echoPin,INPUT);

  //setup for LED
  pinMode(ledPin, OUTPUT);

  //setup for Speaker
  pinMode(speakerPin, OUTPUT);

}

void loop() {
  //looping sensor (Create sound wave)
  digitalWrite(trigerPin, LOW);
```

```
 delayMicroseconds(2);
 digitalWrite(trigerPin, HIGH);
 delayMicroseconds(10);
 digitalWrite(trigerPin, LOW);
 delayMicroseconds(2);

 //get duration
 duration = pulseIn(echoPin, HIGH);

 //calculate distance
 distance = (duration/2)* 0.0343;

 //consider maximum width of the door = 200 cm

 if(distance<200){
  digitalWrite(ledPin, HIGH);
  tone(speakerPin, pitch);
  delay(300);

  digitalWrite(ledPin, LOW);
  noTone(speakerPin);
  delay(300);
 }
 else{
  digitalWrite(ledPin, LOW);
  noTone (speakerPin);
 }

}
```

Screenshot


WOKWi
Simulation
Code
HC-SR04
UNO
ARDUINO
DIGITAL (PWM ~)
ANALOG IN