

## ARDUINO CODE FOR A BIKE OBSTACLE DETECTOR

Project 29: Safe mobility. Safe scooters and bikes on Mars.  
St John Bosco  
Date: April 27, 2023  
Time: 9:00

```
const int trigPin = 11;
const int echoPin = 10;
const int buzzer = 7;
```

```
long duration;
int distance;
int safetyDistance;
```

```
void setup() {
  pinMode(trigPin, OUTPUT);
  pinMode(echoPin, INPUT);
  pinMode(buzzer, OUTPUT);
  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;
```

```
  safetyDistance = distance;
  if (safetyDistance <= 100){
    digitalWrite(buzzer, HIGH);
  }
  else{
    digitalWrite(buzzer, LOW);
  }
```

```
  Serial.print("Distance: ");
  Serial.println(distance);
}
```