Code for tinkercad

```
// C++ code
//
int ULTERSOINC = 0;


long readUltrasonicDistance(int triggerPin, int echoPin)
{
  pinMode(triggerPin, OUTPUT);  // Clear the trigger
  digitalWrite(triggerPin, LOW);
  delayMicroseconds(2);
  // Sets the trigger pin to HIGH state for 10 microseconds
  digitalWrite(triggerPin, HIGH);
  delayMicroseconds(10);
  digitalWrite(triggerPin, LOW);
  pinMode(echoPin, INPUT);
  // Reads the echo pin, and returns the sound wave travel time in microseconds
  return pulseIn(echoPin, HIGH);
}


void setup()
{
  Serial.begin(9600);
  pinMode(9, OUTPUT);
  pinMode(10, OUTPUT);
  pinMode(10, OUTPUT);
}


void loop()
```

```
{
  ULTERSOINC = 0.01723 * readUltrasonicDistance(7, 6);
  Serial.println(ULTERSOINC);
  if (ULTERSOINC < 20) {
    digitalWrite(9, HIGH);
  } else {
    digitalWrite(9, LOW);
  }
  if (ULTERSOINC < 10) {
    tone(10, 92, 100); // play tone 30 (F#2 = 92 Hz)
  } else {
    digitalWrite(10, LOW);
  }
  delay(10); // Delay a little bit to improve simulation performance
}
```

Code For Real test

```
// C++ code
//
int ULTERSOINC = 0;

long readUltrasonicDistance(int triggerPin, int echoPin)
{
pinMode(triggerPin, OUTPUT);  // Clear the trigger
digitalWrite(triggerPin, LOW);
delayMicroseconds(2);
// Sets the trigger pin to HIGH state for 10 microseconds
digitalWrite(triggerPin, HIGH);
delayMicroseconds(10);
digitalWrite(triggerPin, LOW);
pinMode(echoPin, INPUT);
// Reads the echo pin, and returns the sound wave travel time in microseconds
```

```
return pulseIn(echoPin, HIGH);
}

void setup()
{
Serial.begin(9600);
pinMode(9, OUTPUT);
pinMode(10, OUTPUT);
pinMode(10, OUTPUT);
}

void loop()
{
ULTERSOINC = 0.01723 * readUltrasonicDistance(7, 6);
Serial.println(ULTERSOINC);
if (ULTERSOINC < 20) {
digitalWrite(9, HIGH);
} else {
digitalWrite(9, LOW);
}
```

```
if (ULTERSOINC < 10) {
tone(10, 92, 100); // play tone 30 (F#2 = 92 Hz)
} else {
digitalWrite(10, LOW);
}
delay(10); // Delay a little bit to improve simulation performance
}
```