

Lab 7. Sensor_Buzzer

Arduino - Ultrasonic Sensor - Piezo Buzzer

We are going to learn how to:

- If the object is close to ultrasonic sensor, make sound
- If the object is far from ultrasonic sensor, stop making sound
- If the object is close to ultrasonic sensor, make melody of song

Hardware Required

Arduino UNO or Genuino UNO  [https://www.amazon.com/gp/product/B008GRTSV6/ref=as_li_tl?](https://www.amazon.com/gp/product/B008GRTSV6/ref=as_li_tl?ie=UTF8&tag=zlufy-20&camp=1789&creative=9325&linkCode=as2&creativeASIN=B008GRTSV6&linkId=0d436674d8dc77c1)

1 × [ie=UTF8&tag=zlufy-](https://www.amazon.com/gp/product/B008GRTSV6/ref=as_li_tl?ie=UTF8&tag=zlufy-20&camp=1789&creative=9325&linkCode=as2&creativeASIN=B008GRTSV6&linkId=0d436674d8dc77c1)

[20&camp=1789&creative=9325&linkCode=as2&creativeASIN=B008GRTSV6&linkId=0d436674d8dc77c1](https://www.amazon.com/gp/product/B008GRTSV6/ref=as_li_tl?ie=UTF8&tag=zlufy-20&camp=1789&creative=9325&linkCode=as2&creativeASIN=B008GRTSV6&linkId=0d436674d8dc77c1)

USB 2.0 cable type A/B  [https://www.amazon.com/gp/product/B00NH11KIK/ref=as_li_tl?](https://www.amazon.com/gp/product/B00NH11KIK/ref=as_li_tl?ie=UTF8&camp=1789&creative=9325&creativeASIN=B00NH11KIK&linkCode=as2&tag=zlufy-20&linkId=467db2d10f9c094201b6a552ad540c63)

1 × [ie=UTF8&camp=1789&creative=9325&creativeASIN=B00NH11KIK&linkCode=as2&tag=zlufy-](https://www.amazon.com/gp/product/B00NH11KIK/ref=as_li_tl?ie=UTF8&camp=1789&creative=9325&creativeASIN=B00NH11KIK&linkCode=as2&tag=zlufy-20&linkId=467db2d10f9c094201b6a552ad540c63)

[20&linkId=467db2d10f9c094201b6a552ad540c63\)](https://www.amazon.com/gp/product/B00NH11KIK/ref=as_li_tl?ie=UTF8&camp=1789&creative=9325&creativeASIN=B00NH11KIK&linkCode=as2&tag=zlufy-20&linkId=467db2d10f9c094201b6a552ad540c63)

1 × **Ultrasonic Sensor**  [https://amzn.to/2u1oOAu\)](https://amzn.to/2u1oOAu)

1 × **Piezo Buzzer**  [https://amzn.to/2t8BYLE\)](https://amzn.to/2t8BYLE)

Breadboard  [https://www.amazon.com/gp/product/B07LFD4LT6/ref=as_li_tl?](https://www.amazon.com/gp/product/B07LFD4LT6/ref=as_li_tl?ie=UTF8&camp=1789&creative=9325&creativeASIN=B07LFD4LT6&linkCode=as2&tag=zlufy-20&linkId=291070496158c51d7cc12a4fd0b3c137)

1 × [ie=UTF8&camp=1789&creative=9325&creativeASIN=B07LFD4LT6&linkCode=as2&tag=zlufy-](https://www.amazon.com/gp/product/B07LFD4LT6/ref=as_li_tl?ie=UTF8&camp=1789&creative=9325&creativeASIN=B07LFD4LT6&linkCode=as2&tag=zlufy-20&linkId=291070496158c51d7cc12a4fd0b3c137)

[20&linkId=291070496158c51d7cc12a4fd0b3c137\)](https://www.amazon.com/gp/product/B07LFD4LT6/ref=as_li_tl?ie=UTF8&camp=1789&creative=9325&creativeASIN=B07LFD4LT6&linkCode=as2&tag=zlufy-20&linkId=291070496158c51d7cc12a4fd0b3c137)

n × **Jumper Wires**  [https://amzn.to/2ZjP2Kj\)](https://amzn.to/2ZjP2Kj)

Open the file below:

Sensor_Buzzer_Lab.pdf [https://slcc.instructure.com/courses/1004604/files/165676517/download?](https://slcc.instructure.com/courses/1004604/files/165676517/download?wrap=1)
[wrap=1\)](https://slcc.instructure.com/courses/1004604/files/165676517/download?download_frd=1)  [https://slcc.instructure.com/courses/1004604/files/165676517/download?download_frd=1\)](https://slcc.instructure.com/courses/1004604/files/165676517/download?download_frd=1)



Schematic:

Sensor_Buzzer_Schematic.pdf

[https://slcc.instructure.com/courses/1004604/files/165676968/download?wrap=1\)](https://slcc.instructure.com/courses/1004604/files/165676968/download?wrap=1) 

(https://slcc.instructure.com/courses/1004604/files/165676968/download?download_frd=1) 

Download the file:

Sensor_Buzzer.ino (<https://slcc.instructure.com/courses/1004604/files/165676611/download?wrap=1>)

 (https://slcc.instructure.com/courses/1004604/files/165676611/download?download_frd=1)