

Simple Buzzer

Time required: 20 minutes

Please read all the directions carefully before beginning the assignment.

- Comment your code as shown in the tutorials and other code examples.
- Follow all directions carefully and accurately.
- Think of the directions as minimum requirements.

Understanding

Demonstrate understanding of:

delay, buzzer, setup, loop

Knowledge Points

Every Arduino sketch has functions. A function is a block of code. Functions help to keep our code organized and tidy.

The **setup()** and **loop()** functions are required for all Arduino sketches.

setup() This function initializes anything needed for the program. It only runs once. Control is turned over to the **loop()** function when it is finished.

loop() This function does exactly what it says it does. It loops repeatedly as fast as it can. This is the main part of the program.

Requirements

1. Create a sketch that uses the onboard buzzer to make some music.
2. The notes will keep playing until the mBot is turned off.

Tutorial Assignment

1. Start the Arduino IDE. Save the sketch as **SimpleBuzzer**.
2. Complete and test the program as shown.

```

1  /**
2   @file    SimpleBuzzer.ino
3   @author  William A Loring
4   @version V1.0.0
5   @Revised: 06/07/2017   Created: 12/10/2016
6   @Description: Sample code for mBot onboard buzzer
7  */
8  #include <MeMCore.h> // mBot library
9  MeBuzzer buzzer;     // Setup buzzer object
10
11 void setup() {
12     // Even though we don't use it in this program,
13     // we have to include the setup function
14 }
15
16 void loop() {
17     buzzer.tone(600, 1000); // Buzzer sounds 600Hz for 1000ms
18     delay(2000);           // Pause for 2000ms
19     buzzer.tone(1200, 1000); // Buzzer sounds 1200Hz for 1000ms
20     delay(2000);           // Pause for 2000ms
21 }

```

Assignment

Start with your tutorial project and add the following.

1. Add more buzzer notes
2. Add different delay times.

Assignment Submission

- **All students** → Attach finished programs to the assignment in Blackboard.
- **In class assignment submission** → Demonstrate in person.
- **Online submission** → A link to a YouTube video recording showing the assignment placed in the submission area in BlackBoard.