

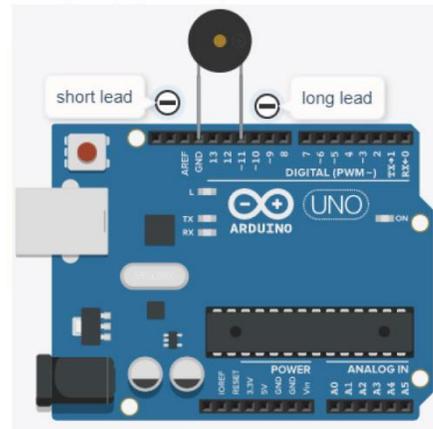
Tone Melody

Aim: This project's aim is to create a melody tone using Arduino and buzzer



Component Required

| Sr. No | Component | Quantity |
|--------|-------------------|----------|
| 1 | Arduino Uno | 1 |
| 2 | Arduino Uno cable | 1 |
| 3 | 9v Battery | 1 |
| 4 | Battery Clip | 1 |
| 5 | Buzzer | 1 |



Circuit connections procedure

- Connect the long lead (you will find + sign on buzzer, that side lead is positive lead) of the buzzer to the pin 11 of arduino.
- Connect the short lead of the buzzer to the GND pin of arduino.

Procedure to upload the code

- Once connections are done then connect an arduino board to your laptop/computer system using an arduino cable.
- Open arduino IDE.
- Go to File->Open>Download>Select tone_melody.
- Click on the upload option.

Program

```
#define buzz 11

// notes in the melody:
int melody[] = { 546, 123,3434,334,2234,234, 4356, 1890 }; // add values between 34 to 4978 to
generate different buzzer sounds
// note durations: 4 = quarter note, 8 = eighth note, etc.: int noteDurations[] = { 4, 8, 8, 4, 4, 4,
4, 4 };
void setup()
{
```

```

// iterate over the notes of the melody:
pinMode(buzz,OUTPUT);
}
void loop()
{
for (int thisNote = 0; thisNote < 8; thisNote++)
{
// to calculate the note duration, take one second divided by the note type.
//e.g. quarter note = 1000 / 4, eighth note = 1000/8, etc. int noteDuration = 1000 /
noteDurations[thisNote]; tone(buzz, melody[thisNote], noteDuration);
// to distinguish the notes, set a minimum time between them. // the note's duration + 30% seems to
work well: int pauseBetweenNotes = noteDuration * 1.30;
delay(pauseBetweenNotes);

// stop the tone playing:
noTone(buzz);
}
}

```



Output

You can hear different tone melodies.

9V Battery connection:

1. You are powering the arduino through your laptop. You can also power the arduino through a 9v battery.
2. Disconnect the arduino cable and connect the 9v battery to the arduino board using the power jack connector. Now you can see the circuit is working.

Note: Do not connect the battery all the time to the arduino board. It will drain the battery.

Troubleshoot

| Issue | Solution |
|--|--|
| My code uploads but my buzzer won't turn on. | Make sure that the buzzer is connected properly with correct polarity (anode and cathode). Also recheck the connection pin no of the buzzer with Arduino. |