

# INFORME PRÀCTICA 6\_3

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## CODI

```
#include <Arduino.h>

#include "pitches.h"
#include "EasyBuzzer.h"
#define BUZZZER_PIN 16 // ESP32 pin GIOP18 connected to piezo buzzer

int melody[] = {
  NOTE_E5, NOTE_E5, NOTE_E5,
  NOTE_E5, NOTE_E5, NOTE_E5,
  NOTE_E5, NOTE_G5, NOTE_C5, NOTE_D5,
  NOTE_E5,
  NOTE_F5, NOTE_F5, NOTE_F5, NOTE_F5,
  NOTE_F5, NOTE_E5, NOTE_E5, NOTE_E5, NOTE_E5,
  NOTE_E5, NOTE_D5, NOTE_D5, NOTE_E5,
  NOTE_D5, NOTE_G5,
  NOTE_E5, NOTE_E5, NOTE_E5,
  NOTE_E5, NOTE_E5, NOTE_E5,
  NOTE_E5, NOTE_G5, NOTE_C5, NOTE_D5,
  NOTE_E5,
  NOTE_F5, NOTE_F5, NOTE_F5, NOTE_F5,
  NOTE_F5, NOTE_E5, NOTE_E5, NOTE_E5, NOTE_E5,
  NOTE_E5, NOTE_D5, NOTE_D5, NOTE_E5,
  NOTE_D5, NOTE_G5
};

int noteDurations[] = {
  8, 8, 4,
  8, 8, 4,
  8, 8, 8, 8,
  2,
  8, 8, 8, 8,
  8, 8, 8, 16, 16,
  8, 8, 8, 8,
  4, 4,
  8, 8, 4,
  8, 8, 4,
  8, 8, 8, 8,
  2,
  8, 8, 8, 8,
  8, 8, 8, 16, 16,
  8, 8, 8, 8,
  4, 4
};

void setup() {
  ledcSetup(0, 1E5, 12);
```

```
    ledcAttachPin(16,0);
    int size = sizeof(noteDurations) / sizeof(int);
    for (int thisNote = 0; thisNote < size ; thisNote++) {
        int noteDuration = 1000 / noteDurations[thisNote];
        ledcWriteTone(0, melody[thisNote]);
        delay(noteDuration);

        int pauseBetweenNotes = noteDuration * 1.30;
        delay(pauseBetweenNotes);

        ledcWriteTone(0,0);
    }
}

void loop() {
}
```

## FUNCIONAMENT

Per aquesta part, hem d'incloure la llibreria pitches.h ja que en aquesta estan tots els valors de to de les notes típiques.

A continuació, en el *int melody[]* definim totes les notes que volem que sonin en el buzzer i en el *int noteDurations[]* trobem, com bé indica el nom de la funció, la duració de cada nota. Finalment, en el *setup()* cridem les funcions anteriors i afegim delays a les notes per tal de que no es col·lapsi i dongui temps a executar-se.

## VIDEO DE L'EXECUCIÓ

[https://drive.google.com/file/d/1PQo-at\\_zF5othMcq0Blh2kY8oM-5wCgJ/view?usp=sharing](https://drive.google.com/file/d/1PQo-at_zF5othMcq0Blh2kY8oM-5wCgJ/view?usp=sharing)