

Sounds & Music - Tinkercad Circuits

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```

16 #define NOTE_G 392 //Hz
17 #define NOTE_A 440 //Hz
18
19 const int SPEAKER=9; //Speaker on Pin 9
20
21 const int BUTTON_C=7; //Button Pin
22 const int BUTTON_D=6; //Button Pin
23 const int BUTTON_E=5; //Button Pin
24 const int BUTTON_G=4; //Button Pin
25 const int BUTTON_A=3; //Button Pin
26
27
28 void setup()
29 {
30 //No setup needed
31 //Tone function sets outputs
32 }
33
34 void loop()
35 {
36 while(digitalRead(BUTTON_C))
37 tone(SPEAKER, NOTE_G);
38 while(digitalRead(BUTTON_D))
39 tone(SPEAKER, NOTE_A);
40 while(digitalRead(BUTTON_E))
41 tone(SPEAKER, NOTE_C);
42 while(digitalRead(BUTTON_G))
43 tone(SPEAKER, NOTE_E);
44 while(digitalRead(BUTTON_A))
45 tone(SPEAKER, NOTE_D);
46
47 //Stop playing if all buttons have been released
48 noTone(SPEAKER);
49 }

```

Serial Monitor meet.google.com

Circuit Diagram:

The circuit diagram is divided into five horizontal sections (A-E) and six vertical columns (1-6). Section A contains a potentiometer (RPOT1) connected to ground (U1_GND) through a 10k resistor (R1). Section B contains four buttons labeled S1, S2, S3, and S4, each connected to ground (U1_GND) through a 10k resistor (R2, R3, R4, R5). Section C contains an Arduino Uno microcontroller (U1) with its 5V pin connected to U1_5V. Section D contains a 10k resistor (R6) connected between U1_5V and U1_BV. Section E contains a 10k resistor (R7) connected between U1_BV and U1_GND. The Arduino pins are connected to the breadboard as follows: digital pins 3, 4, 5, 6, 7, and 8 are connected to the breadboard ground rail; digital pin 9 is connected to the breadboard power rail; analog pins A0-A5 are connected to the breadboard ground rail; and analog pins A6-A9 are connected to the breadboard power rail.

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