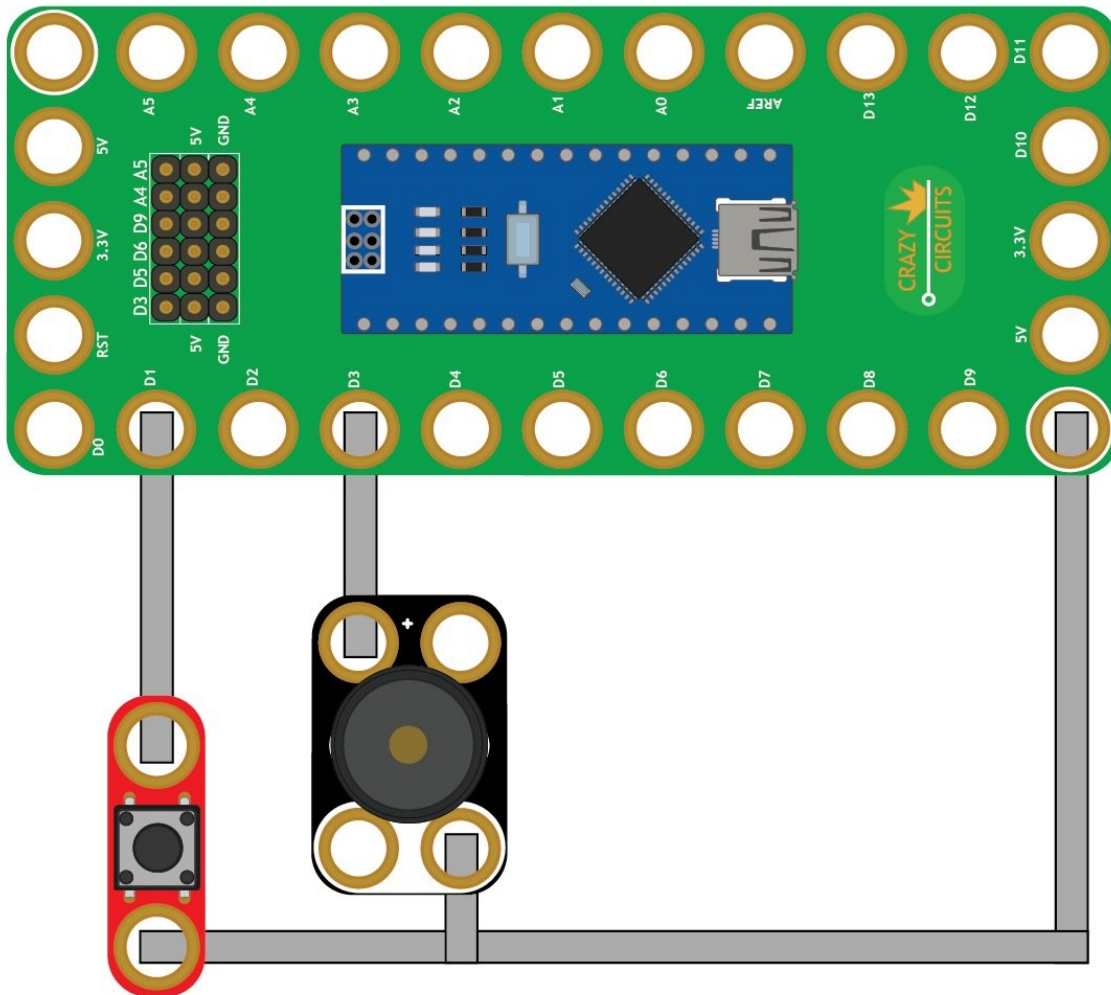




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INTRODUCTION

Use our Robotics Board to control a piezo speaker with a pushbutton.



TOOLS:

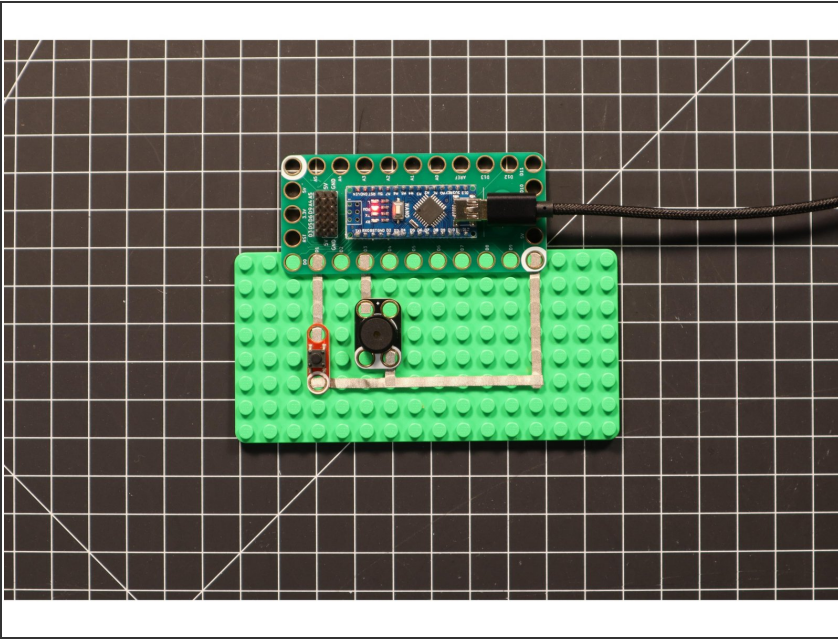
- [Scissors](#) (1)
- [Computer](#) (1)



PARTS:

- [Crazy Circuits Robotics Board](#) (1)
- [Standard Pushbutton Chip](#) (1)
- [Crazy Circuits Piezo Speaker Chip](#) (1)
- [Maker Tape 1/8th inch](#) (1)

Step 1 — Build the Circuit



- Build the circuit as shown in the diagram using the components specified.

Step 2 — Upload the Code

```
Pushbutton_with_Piezo
1 //
2 // Pushbutton_with_Piezo.ino
3 //
4 // https://www.browndoggadgets.com/
5 //
6 //
7 //
8 //
9 //
10 // set variable name for a digital input pin
11 int ButtonPin = 1;
12
13 // set variable name for a digital output pin with Pulse Width Modulation
14 // pins 3, 5, 6, 9, 10, 11 support PWM
15 int PiezoPin = 3;
16
17 // set a variable named myfrequency to assign a specific frequency that will play
18 // 880 Hz is an A5 note
19 int myfrequency = 880;
20
21
22 // the setup runs once at the beginning of the sketch
23 void setup() {
24
25   // the PiezoPin is set to function as an output
26   pinMode(PiezoPin, OUTPUT);
27
28   // the ButtonPin is set to function as an input with a special built-in pull-up resistor
29   pinMode(ButtonPin, INPUT_PULLUP);
30
31 }
32
33 // the loop runs forever after the setup is complete
34 void loop() {
35
36   // check if the button is pressed
37   if (digitalRead(ButtonPin) == LOW) {
38     // play the specified frequency on the PiezoPin
39     tone(PiezoPin, myfrequency);
40
41   }
42   // this happens if the button is not pressed
43   else {
44     // stop playing a tone on the PiezoPin
45     noTone(PiezoPin);
46
47   }
48 }
```

- Upload the Arduino sketch to the Robotics Board.
- You can find the code here: <https://github.com/BrownDogGadgets/Progr...>