



BOSEbuild Reactive Sound

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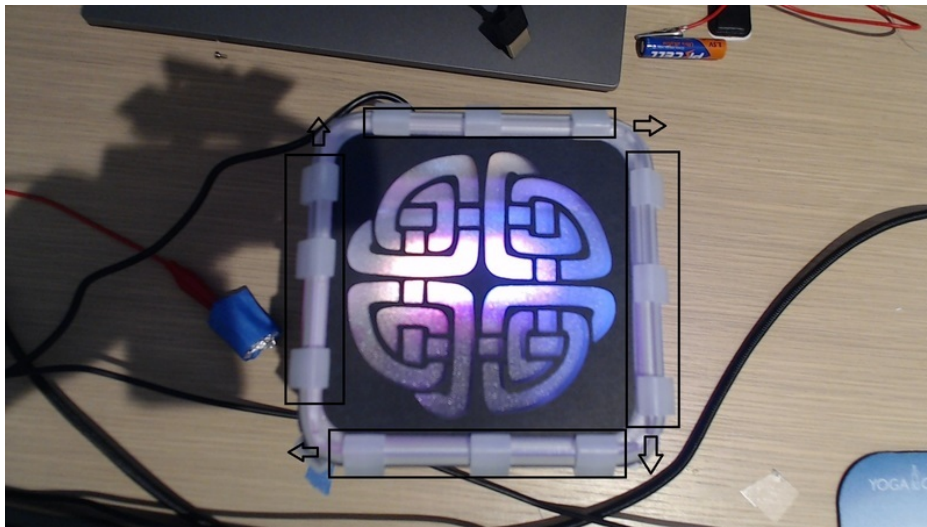
Overview

Hello! Welcome to my first guide on the Learning System!

In this project, I add a Circuit Playground Express to my BOSEbuild speaker to replace the default reactive audio lights with a more appealing, better looking audio-reactive rainbow animation (or whatever animation you want) for the speaker.

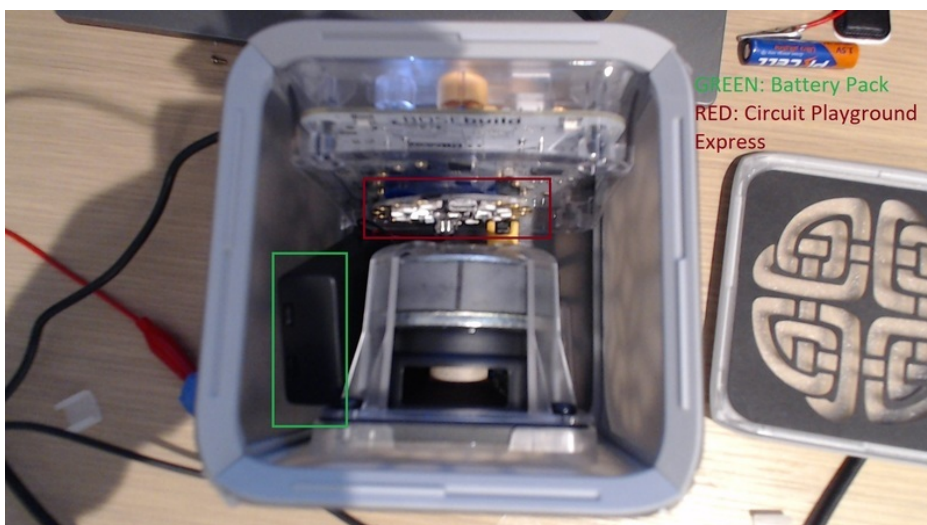
This is a pretty easy project, and it's a nice thing to do after you get the speaker.

The first thing you need to do is take off one panel from the speaker. You put it together (most likely), so you should know how to remove the clips and take off the panel, but here's a visual representation.



Slide the clips in the square boxes off, then raise the panel up.

Once that's done, you can insert the Circuit Playground behind the magnet of the speaker. This can get a bit complicated, so here's another visual representation (with text this time).



Once that's done, you can plug it in and set it up!

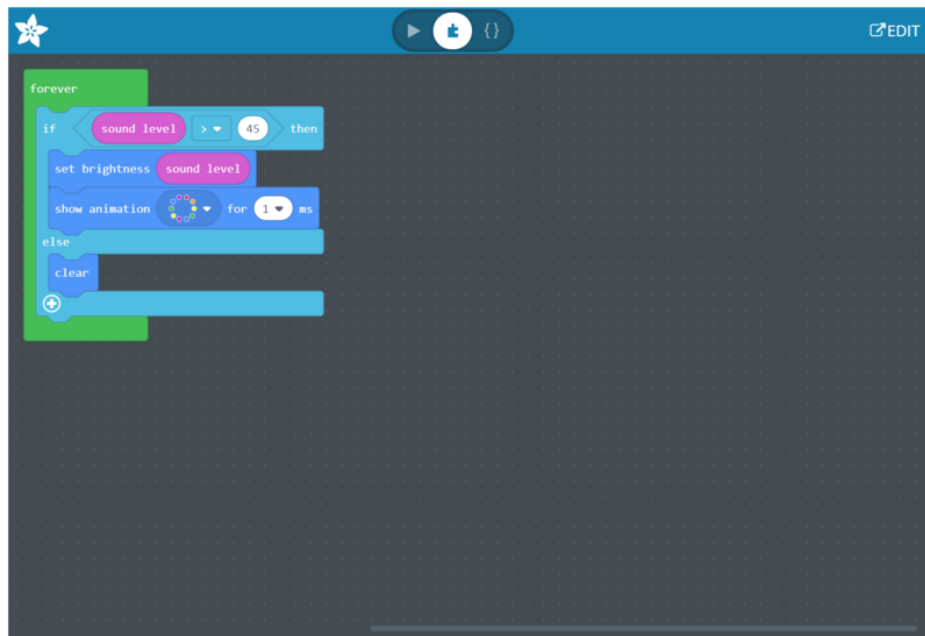
Uploading the code

Below is the Microsoft MakeCode for this project:

You may need to enable to view the content. A static picture is below or you you can see on the Microsoft MakeCode site [here \(https://adafru.it/C1c\)](https://adafru.it/C1c). On that site, click the DOWNLOAD button/text. Save it somewhere, you will need that file later.

<https://adafru.it/DdV>

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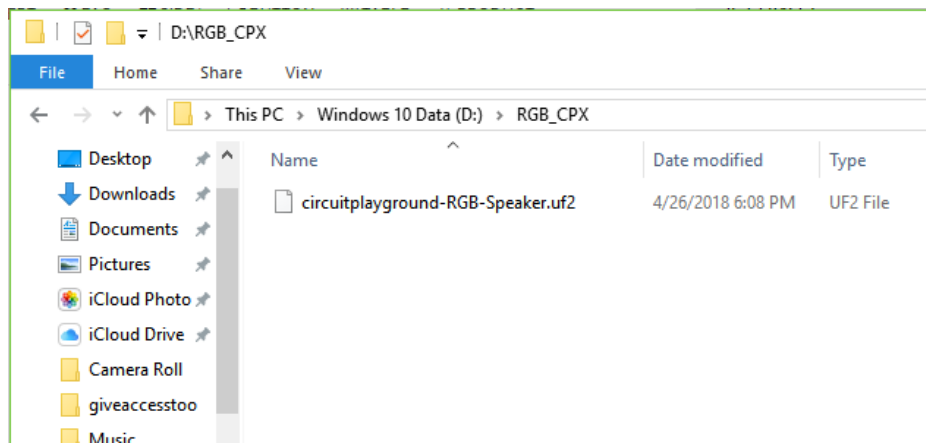


Make sure that code is how you want it. You can use the MakeCode editor to edit the code, but if you think the Rainbow effect is OK for you, then don't do anything, just download it.

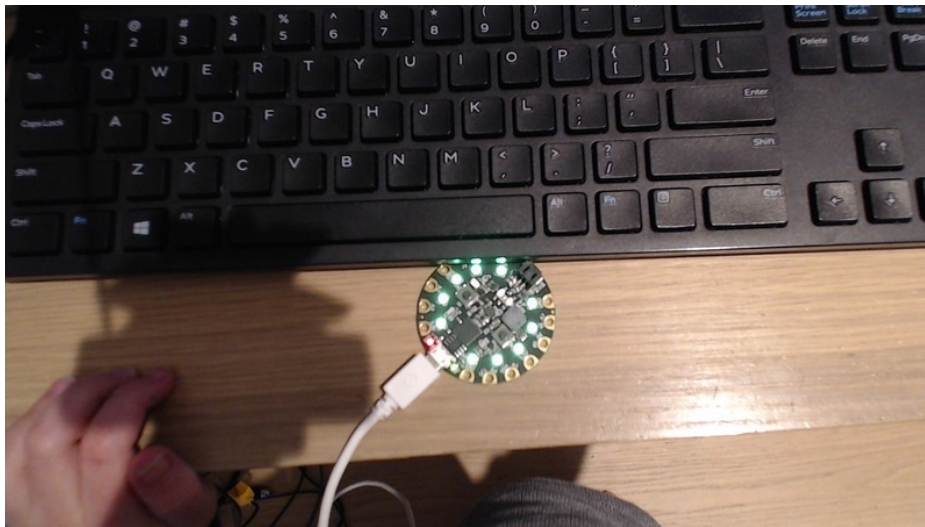
Putting it on your device

Once you've got that code, you can upload it. Here's how to do it.

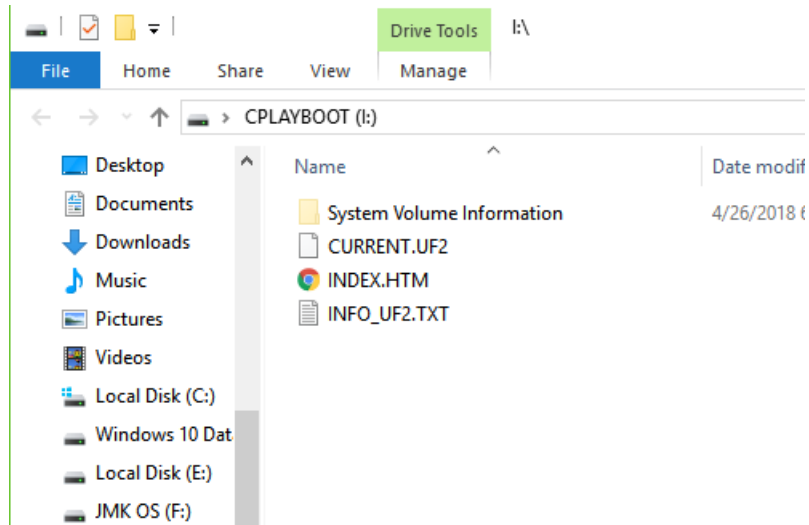
1. Locate the file in your file manager.



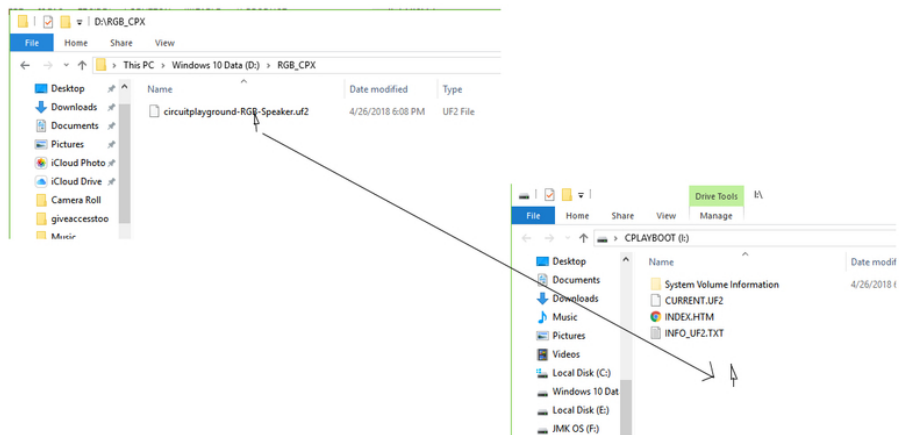
2. Plug in the Circuit Playground, then if it isn't lighting up with a light green ring, click the RESET button once. If it still isn't, try another USB cable.



3. Locate the CPLAYBOOT drive.



4. Drag the file you downloaded into the CPLAYBOOT drive.



5. Done! First, unplug the Circuit Playground, then switch on the AAA battery holder, then secure it behind the speaker magnet if it isn't already, then you are ready!

Some last tips

These tips are in Q and A form.

Tip 1:

Q: All the LED's are lighting up red on my CPX! What do I do?

A: This means the batteries are dead. Replace them from the battery holder after disconnecting it from the Circuit Playground.

Tip 2 (isn't really a tip, more of a question):

Q: Can I use the Circuit Playground Classic instead of the Express?

A: Yes, you can, but I haven't tested with it.

Tip 3:

Q: Is there any other way to get the speaker input *besides* the microphone?

A: Yes, you probably could find the pinouts of the speaker connector, solder onto them, and connect them to an analog pin and set it up as an input and then measure the voltage from that. I haven't tried that either, and I'm not going to risk breaking the connector with soldering.

Tip 4:

Q: Can I run it off of the mains power from the speaker instead of batteries?

A: Probably, kind of like Tip 3, by soldering onto the power inputs of the speaker (hopefully 4.5V-5V) and then maybe use that.

So, that's the end of this guide! I hope you like it! This is my first one!