



Measure the intensity of sound

Wiring and Using a Programming board

Using the microphone

The microphone integrated into the STM32 IoT Node Discovery is ready to use, no wiring is required.

Connecting the board to the computer

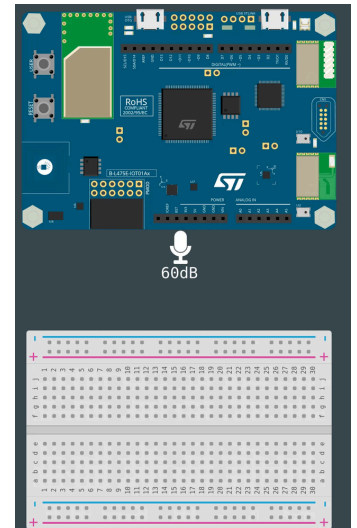
Connect the board to your computer via the ST-LINK micro-USB connector (located at the top right of the board) with a USB cable. If the connection is successful, a new drive named DIS_L4IOT will appear on your computer. This drive is used to program the board by copying a binary file.

Open MakeCode

Go to the Let's Steam MakeCode editor. On the home page, create a new project by clicking "New Project." Give it a meaningful name, then launch the editor. Resource: makecode.lets-steam.eu

Installing extensions

After creating your project, the default "out of the box" screen appears, and an extension must be installed. At the bottom of the block groups column, click the black ADVANCED button. Additional groups appear. At the very bottom, click the gray EXTENSIONS box. In the list, find the serial extension, which allows you to display the value measured by the microphone in the console. If it is not visible, use the search bar to locate it. Select the desired extension: a new block group will be added to the main screen.



Use and understand the code

Here is the Javascript code used to program an STM32 board to regularly collect the microphone sound level.



```
Serial.attachToConsole()
forever( function(){
  Serial.writeValue("Decibel", input.decibel());
  pause(200)
})
```

Programming the board

In the MakeCode JavaScript editor, copy and paste the code provided in the previous section. If you haven't already done so, give your project a name and click the Upload button. Then transfer the binary file to the DIS_L4IOT drive. Wait for the board to finish flashing.

Run, modify, play.

Your program will run automatically every time you save or reset the board (by pressing the RESET button).