



## The Sounds of Mars: How noisy is it on Mars?

What does it sound like on Mars?

The atmosphere, temperature, density and chemistry on Mars is entirely different from Earth. On Mars, you would hear a more quieter, more muffled version of what you normally hear, and sounds emitted would take slightly longer for you to hear it.

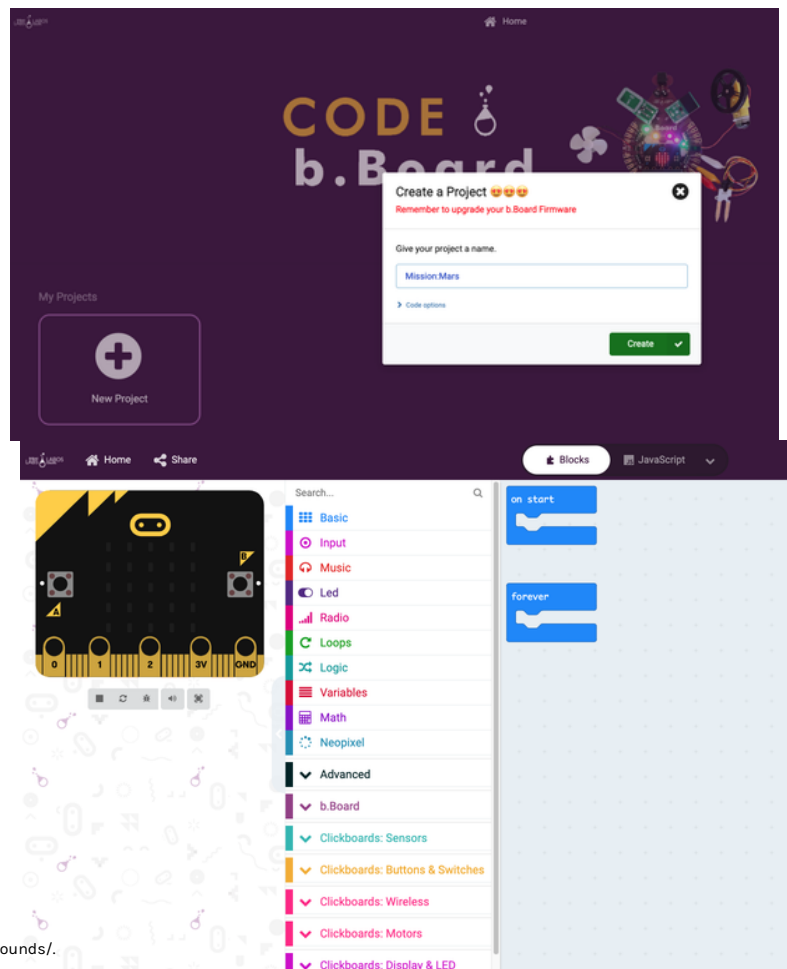
For this mission, we want you to find out just how loud it really is!

The b.Board has a built-in microphone that lets you measure the sound level of the area the b.Board is in. If you don't know much about the b.Board, or how to power it or plug anything in, take a minute to go through our great getting started guide before you go any further! There's even a section with an example of how to use the microphone.

### Getting Started Guide

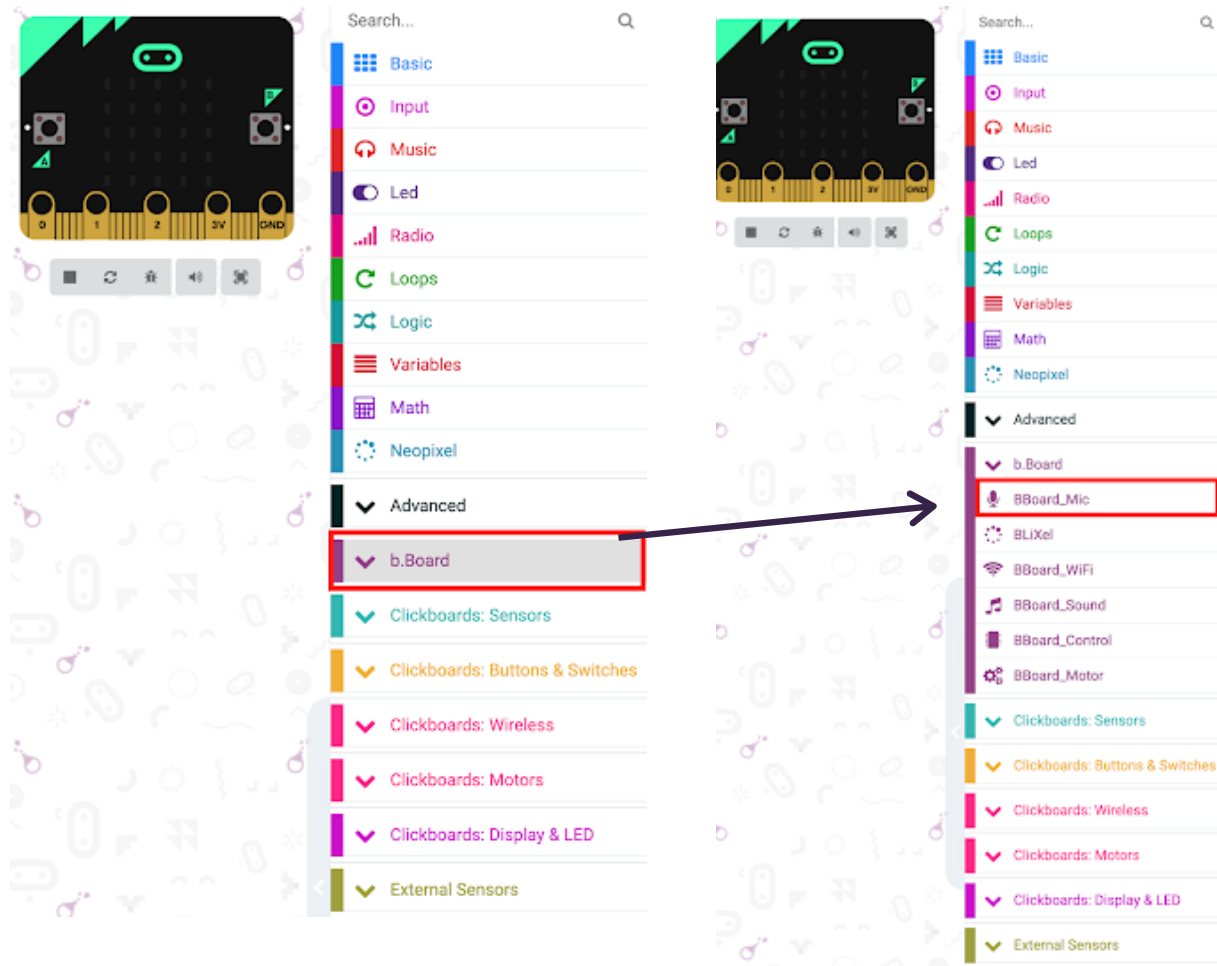
Once you're ready to go, head on over to [code.brilliantlabs.ca](https://code.brilliantlabs.ca) and start testing it out! Create a new project or open one that you've already created. In my case, I selected the new project + icon and gave it the name Mission: Mars.

As soon as you select "create", your new project will open. You should see something like this:

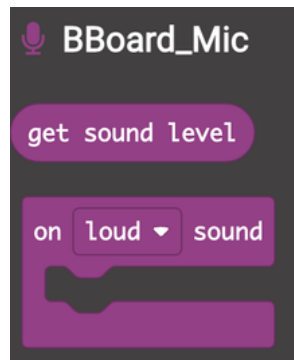


NASA. (2021). Sounds of Mars. <https://mars.nasa.gov/mars2020/participate/sounds/>.

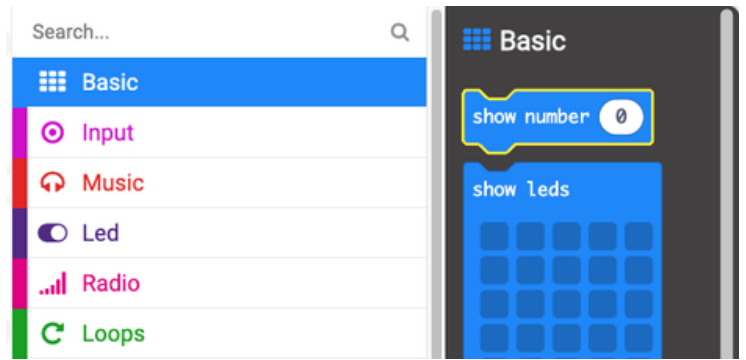
On the left-hand side of the screen, you can see the toolbox. This is where we keep all of the blocks of code you need to control your micro:bit and b.Board. Select the b.Board category in the toolbox, select the b.Board microphone.



When you open up the toolbox, you'll see a couple of blocks to let you control your microphone.

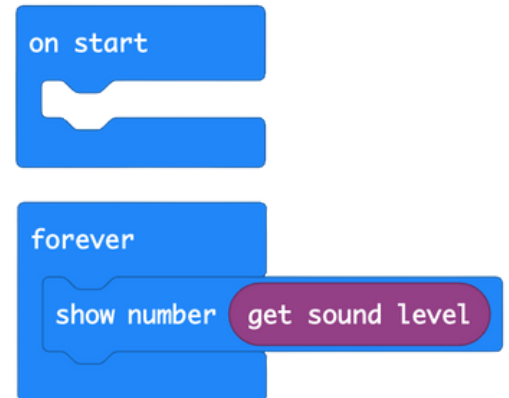


We will use the the micro:bit LED screen to display the sound level. To do that, grab the “show number” block as shown below.



Now drop it in your forever loop and add in the get sound level block previously shown

Program your micro:bit and watch the sound level display on the LED screen over and over.



## What Next?

Try experimenting with the “on loud sound” event block. Think about why you want to measure sound on Mars, and how often it would be useful. Once you’ve got it all sorted out, head on over to our WiFi guide to learn how you can connect your rover to our Brilliant Labs Cloud ([cloud.brilliantlabs.ca](http://cloud.brilliantlabs.ca)) and get your rover ready to send the data from “Mars” back to “Earth”. :)

### Join the Mission: Mars Challenge!

Are you on track to complete your Mission: Mars Rover by early May? If so, Brilliant Labs welcomes you to visit or mail your rover to 1 of 5 in-person Provincial School Maker Faires or the Atlantic Virtual Mission: Mars Challenge (June 2nd). This is your chance to showcase your work and participate in up to 10 mission challenges. Each challenge, when completed successfully, will earn points and badges. The Mission: Mars student engineers with the most points will win the Mission: Mars Challenge Showcase!

### Download, Register & Book Today!

Get the Mission: Mars Challenge Guide to learn more about what to expect and how the points will be awarded. Plus, don't forget to register and book your Mission Challenge(s) at [Brilliantlabs.ca/innovation-challenge/missionmars](http://Brilliantlabs.ca/innovation-challenge/missionmars) (winners will be announced at the June 9th Atlantic Virtual School Maker Faire). Join the challenge and explore Maker Mars!

