

micro:bit/Makecode Troubleshooting

This teacher-facing document provides guidance on troubleshooting micro:bits and Makecode. Do not provide explicit instruction on the information here; instead use it to support students on an as-needed basis as they build experience with both tools.

Troubleshooting the micro:bit

Problem	Solution
I do not know which battery pack to use or how to power the micro:bit.	The micro:bit should be powered through USB cable or a 3V battery pack. This means only a battery pack with 2 AAA batteries should be used, not the pack with 6 AA batteries. The larger pack should only be used with a keyestudio EASY plug shield. Providing too much voltage to the micro:bit can cause a fault--that is, "fry" it so that it no longer works.
The micro:bit is displaying something weird on battery power (when not connected via USB).	Replace the batteries. Toward the end of the battery life, the decreased voltage they provide sometimes produces this outcome.
The micro:bit will not turn on.	Make sure to test the micro:bit with both USB and battery power. If it will not turn on when the power button is used, it has likely developed a fault. This may happen because the circuitry was damaged through too much voltage or exposure to water, among other causes.

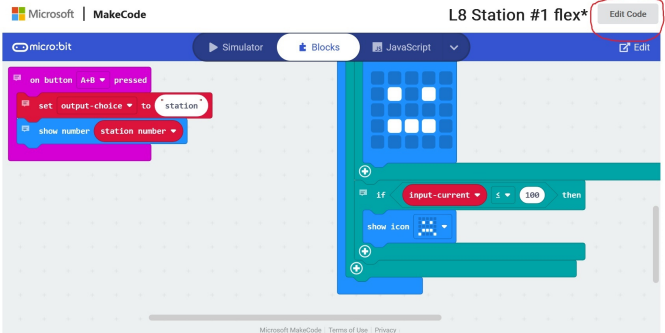
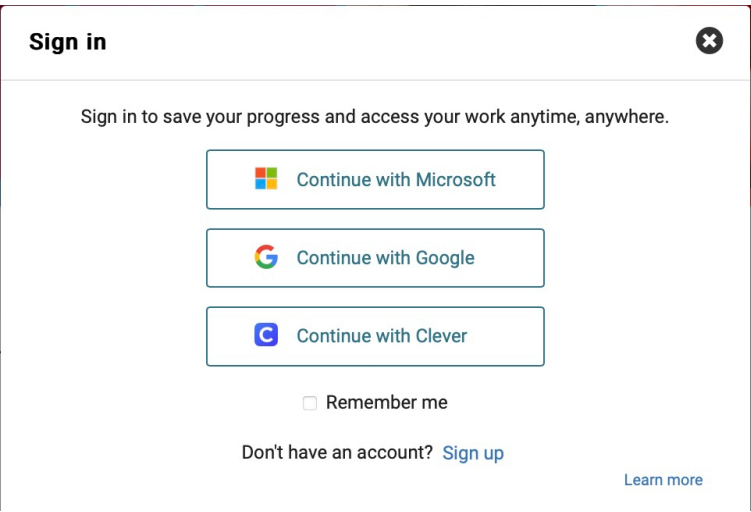
Additional micro:bit troubleshooting guidance may be found on the micro:bit website: <https://support.microbit.org/support/home>

Troubleshooting sensors

Problem	Solution
My sensor does not work.	First, double check that you have attached it <i>exactly</i> as shown in the teacher materials, and that it looks like those shown in the materials. If it does not, see below. Do not try attaching the sensor in different configurations than those shown in the materials. This can cause a fault in the sensor so that it is permanently damaged.
My sensors do not look like those in the teacher materials.	Take pictures and share on the OpenSciEd Middle School + Computer Science Facebook page for help with identification. It is possible sensors were mixed up or a new version is out that must be attached differently.
I have verified I have the correct sensor, attached correctly, and it still does not work.	Ensure that the micro:bit is working, as well as the EASY plug shield (if used for that particular sensor), and the EASY plug power switch is turned on. If these devices are working and the correct sensor is attached correctly, the sensor has likely developed a fault and will need to be replaced.

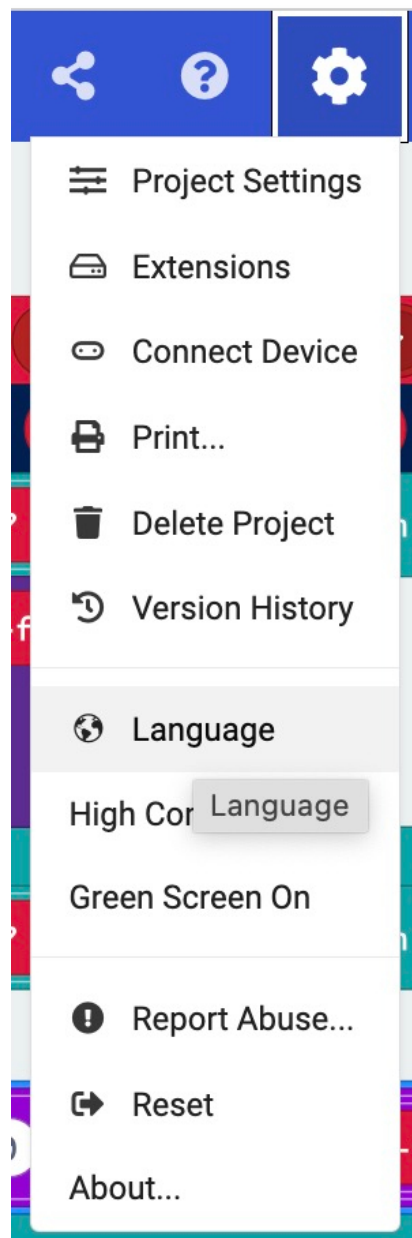
Troubleshooting Makecode

Problem	Solution
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I accessed a Makecode link from the unit, but cannot edit or download the code.	Click on the “Edit” button above the code. This will take you to the screen where you can make edits and download the code. Changes you make here will not affect the original file. 
I wish to save changes in a spun-off version of the code.	Once you are logged into Makecode, this will occur automatically. Sign in the top-right corner of the screen. If your school email is based on Microsoft or Gmail, you can click on the buttons that appear. If you wish to use another email, select the “Sign up” option and create an account. 
I tried to download the code to the micro:bit and the download screen is hanging.	If the micro:bit is plugged into an external battery pack when you are doing this, it can sometimes lead to a problem downloading the code. Unplug the battery pack and safe eject the mico:bit from the computer. The safe eject procedure is outlined in this video: https://www.youtube.com/watch?v=giwioJnXHF4. Unplug the USB cable from the computer and then plug it back in. Try and pair the micro:bit to the computer and then download the software to it again.

My students would benefit from working with Makecode in their home language.

The code blocks can be automatically translated by selecting the Settings gear icon in the top-right corner of the screen, then selecting “Language” from the tool bar that drops down. Users can easily switch back. Any variables in the code remain in the language in which they were written unless edited. Alternatively, you could add comments to the block with translations of the variable names.



Additional Makecode troubleshooting guidance may be found on the Makecode website: <https://makecode.microbit.org/faq>