

Before You Begin Setting Up Hardware and Software

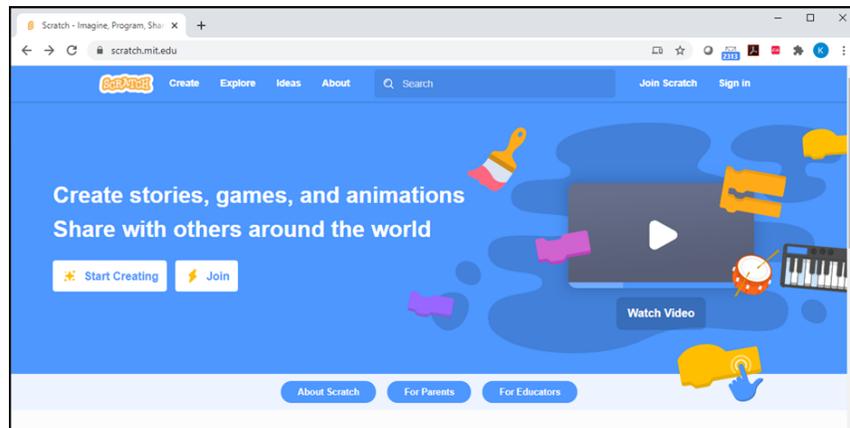
We suggest you do the following things before you begin this unit. If you run into any problems please contact us at Kath@CreositySpace.com ASAP so that we can work with you to find a solution.

1. Ensure SCRATCH 3.0 isn't blocked by your school's firewall.
2. Download and install the BBC micro:bit SCRATCH link/app.
3. Download and install the BBC micro:bit hex code.
4. Download and save the Flappy Bird scratch project file.

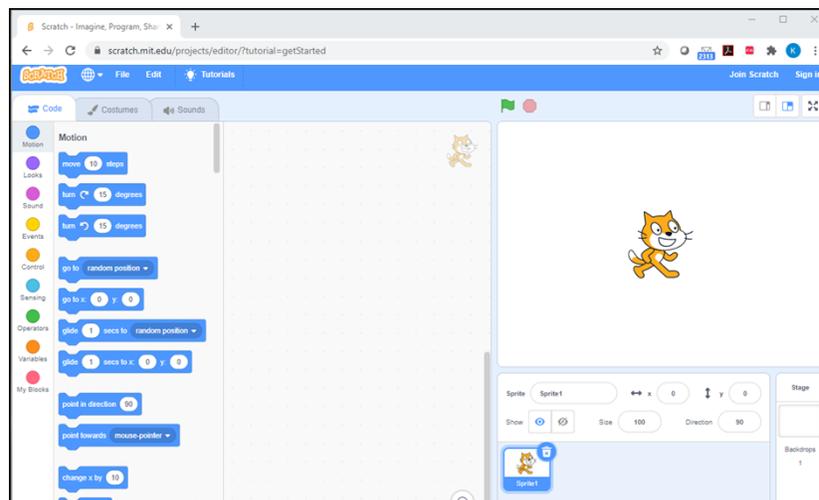
Note: Detailed instructions and links are provided in the following pages. Instructions, links, and files are also provided in the CreositySpace *Coding Whisperers* unit digital forum.

Ensure SCRATCH 3.0 isn't blocked by your school's firewall.

1. Go to <https://scratch.mit.edu/>



2. Select Create



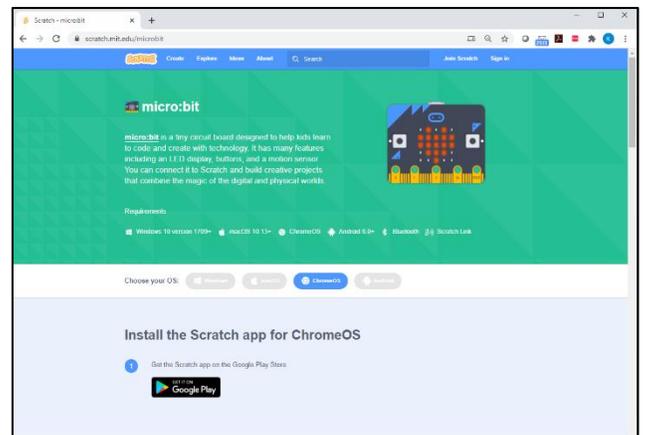
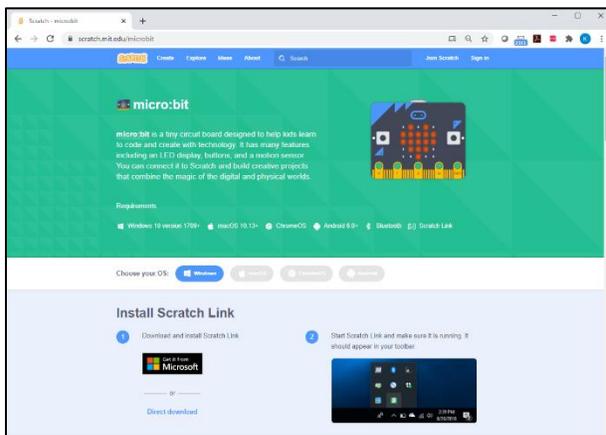
3. Begin coding

Students do not need to create an account nor download any software to begin coding with SCRATCH. They can also save their projects (code) directly to the computer (File/Save to your computer) and then reload any saved files (File/Load from your computer) without an account. If they would like to share or save their projects to the web, they will need to create an account.

Download and install the BBC micro:bit SCRATCH link/App.

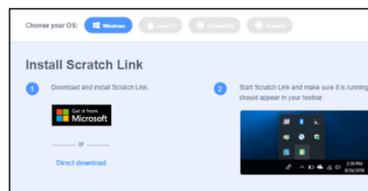
To enable scratch to work with the BBC micro:bit you must install the SCRATCH link/app.

1. Go to the BBC micro:bit section of Scratch <https://scratch.mit.edu/microbit> and select your operating system (Windows, macOS, ChromeOS, Android). For Windows and macOS there is a link you must download. For ChromeOS and Android there is an app to download.

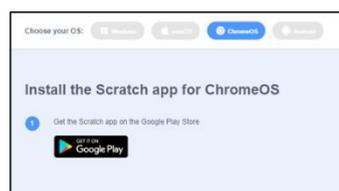


2. Get and install the SCRATCH link or app.

- i. For Windows and iOS operating systems you will continue to run SCRATCH through your web browser. You will need to make sure the SCRATCH Link is running.



- ii. For ChromeOS and Android you will need to use the SCRATCH app to interface with the BBC micro:bit.

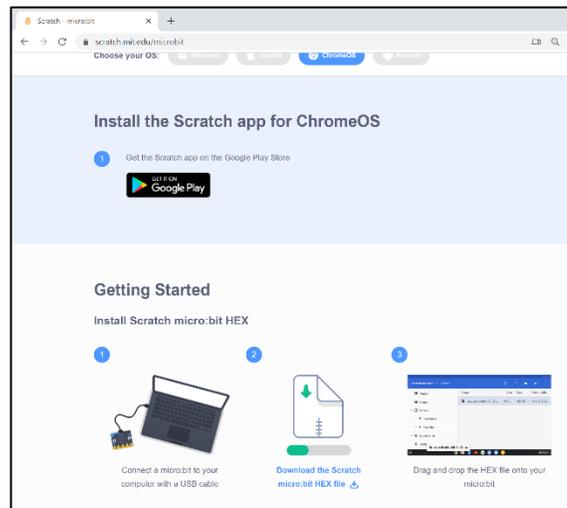


Download and install the SCRATCH hex file onto the BBC micro:bit.

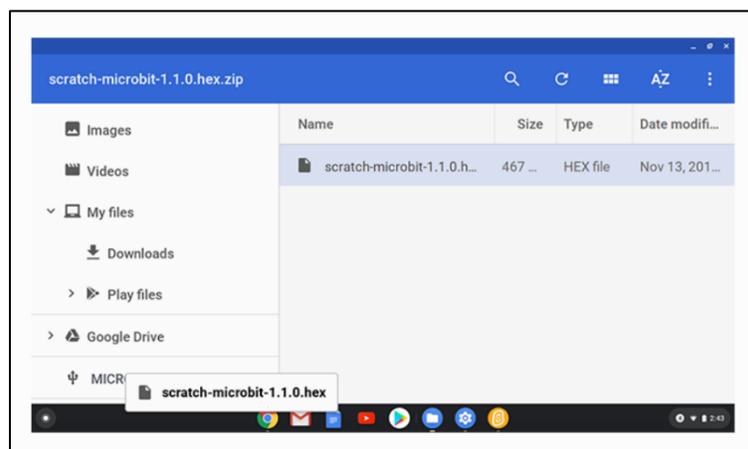
This step is the same regardless of operating system. This just needs to be completed once per BBC micro: bit device.

Note: If you are using an Android tablet or smartphone you must install the hex file via a computer through the micro USB attachment.

1. Download the hex file to your computer. You can do this directly from the SCRATCH BBC micro:bit website (<https://scratch.mit.edu/microbit>) or from the *Coding Whisperers* digital forum.



2. Connect the BBC micro:bit to the computer via the micro USB cable.
3. Drag and drop the hex code onto the BBC micro:bit.



Download and save the Flappy Bird scratch project file.

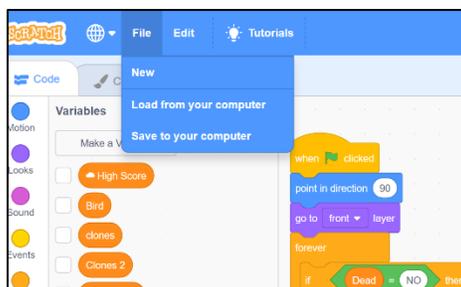
There are two versions of the Flabby Bird SCRATCH video game software on the *Coding Whisperers* digital forum:

- Flappy Bird Scratch 3.0
- Flappy Bird Scratch 3.0 touch

The first (Flappy Bird Scratch 3.0) is the standard Flappy Bird code that is described in the Hack Flappy Bird investigation. The second (Flappy Bird Scratch 3.0 touch) is a modified version of the code to give students a head start if they want to use the capacitive touch sensor to modify the Flappy Bird video game. Instructions for this extension are provided with the code on the digital forum.

1. Download the Flappy Bird file and save it to some obvious place on each computer. (We suggest the desktop).
2. Students upload the Flappy Bird project file into SCRATCH to play and modify. The Flappy Bird project file can be uploaded into SCRATCH in either the browser version or the app version on of SCRATCH on any device. *Note: For ChromeOS and Android the BBC micro:bit (and any BBC micro:bit hacks) will only work in the app but the Flappy Bird project file will run in either version.*

Browser version



App version

