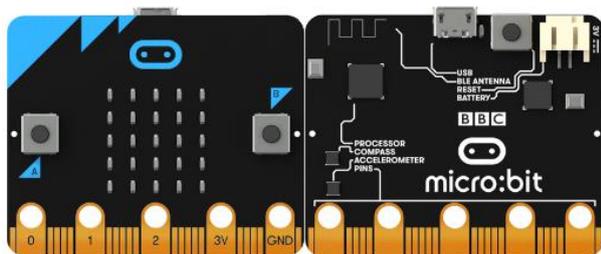


## Create Smile with micro:bit

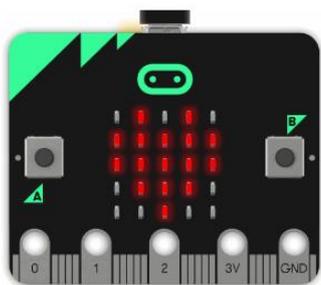
<https://microbit.org/guide/>

What is micro:bit?



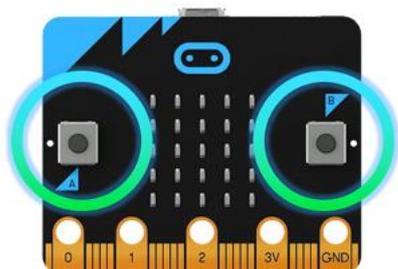
You can use your BBC micro:bit for all sorts of cool creations, from robots to musical instruments - the possibilities are endless. (¥2160 Tax included.)

25 individually-programmable LEDs  
LED



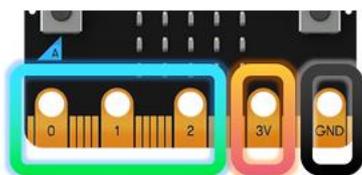
LED stands for Light Emitting Diode. The micro:bit has 25 individually-programmable LEDs, allowing you to display text, numbers, and images.

Buttons



There are two buttons on the front of the micro:bit (labelled A and B). You can detect when these buttons are pressed, allowing you to trigger code on the device.

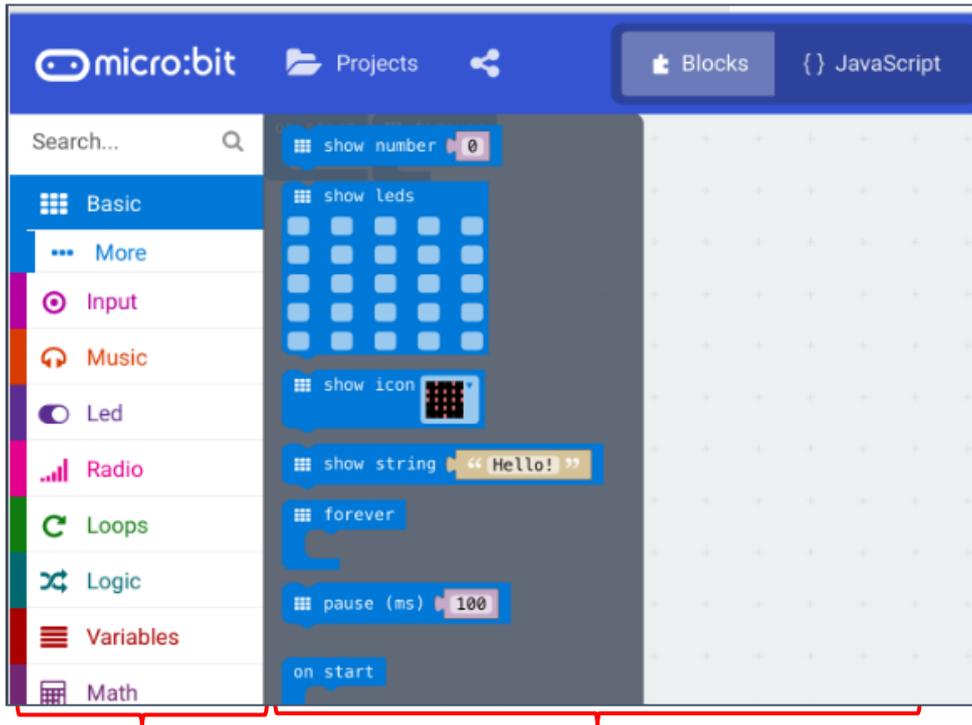
Pins



There are 25 external connectors on the edge connector of the micro:bit, which we refer to as 'pins'. Program motors, LEDs, or other electrical components with the pins, or connect extra sensors to control your code!

## Basic Steps

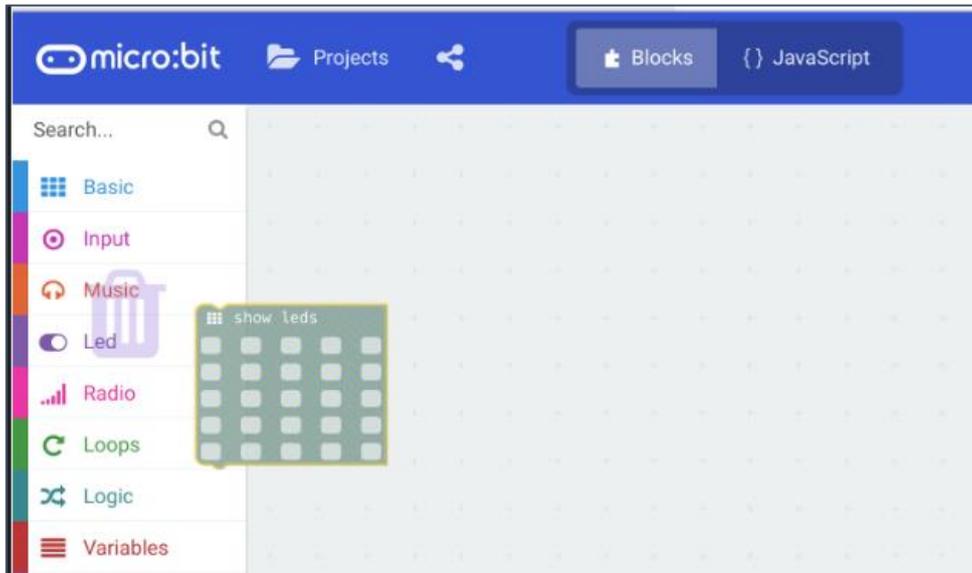
Start by placing blocks in “stage” .



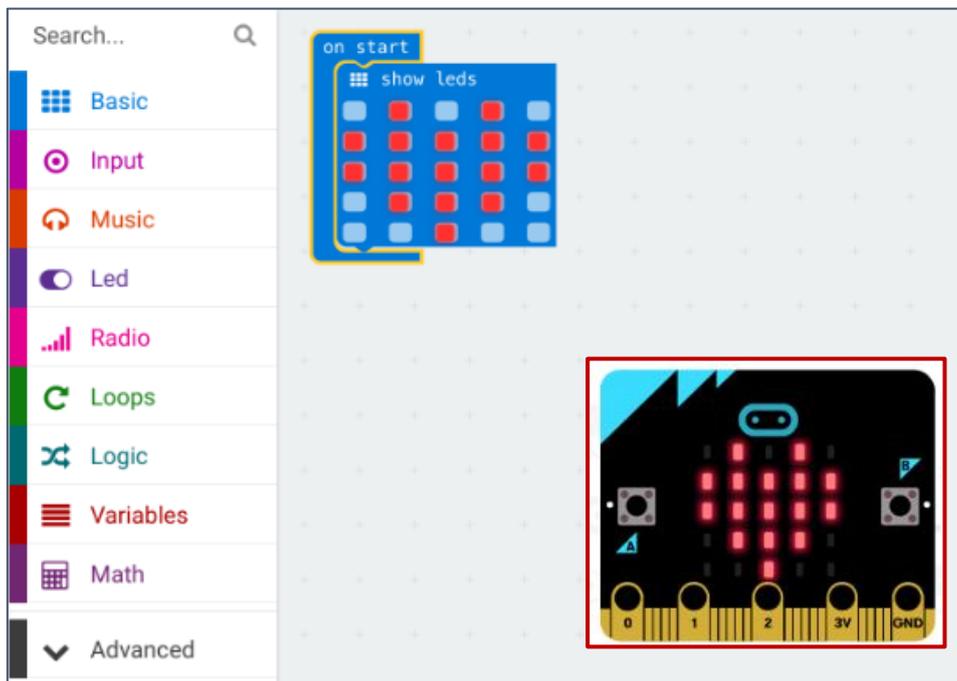
Blocks

Stage (Place blocks here.)

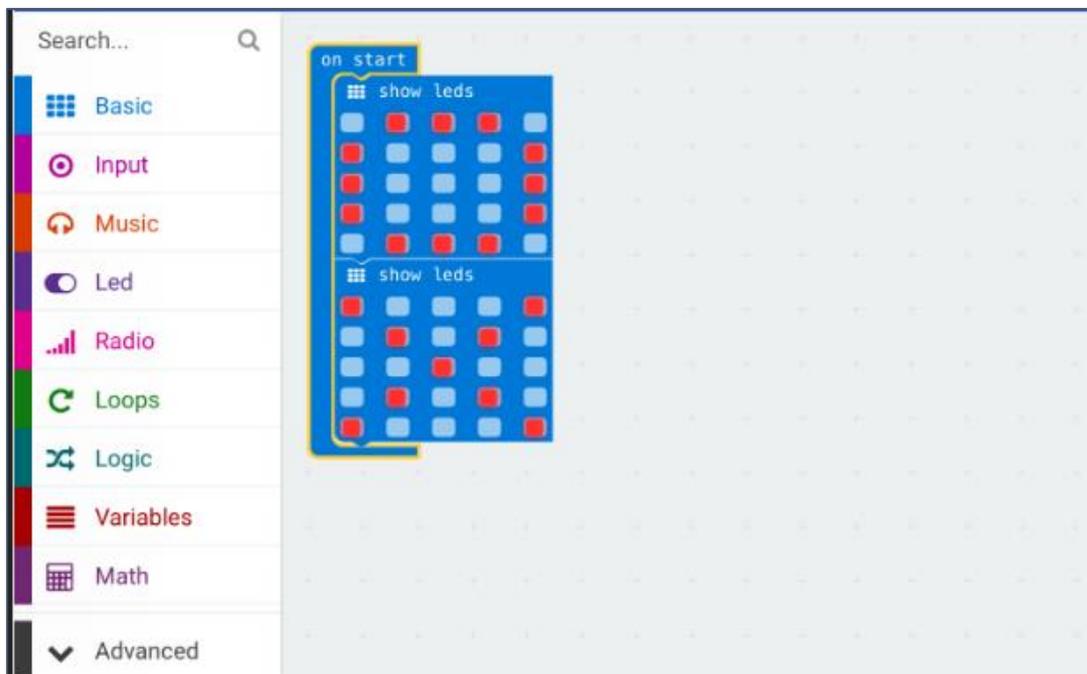
- ❖ Click and drag blocks to the list of blocks and the trash can icon will appear. Position the blocks you no longer need over the trash can to remove them.



Blocks in “on start” will be executed when the program starts. There are “forever” and “on button A pressed” which will be executed accordingly when events run.

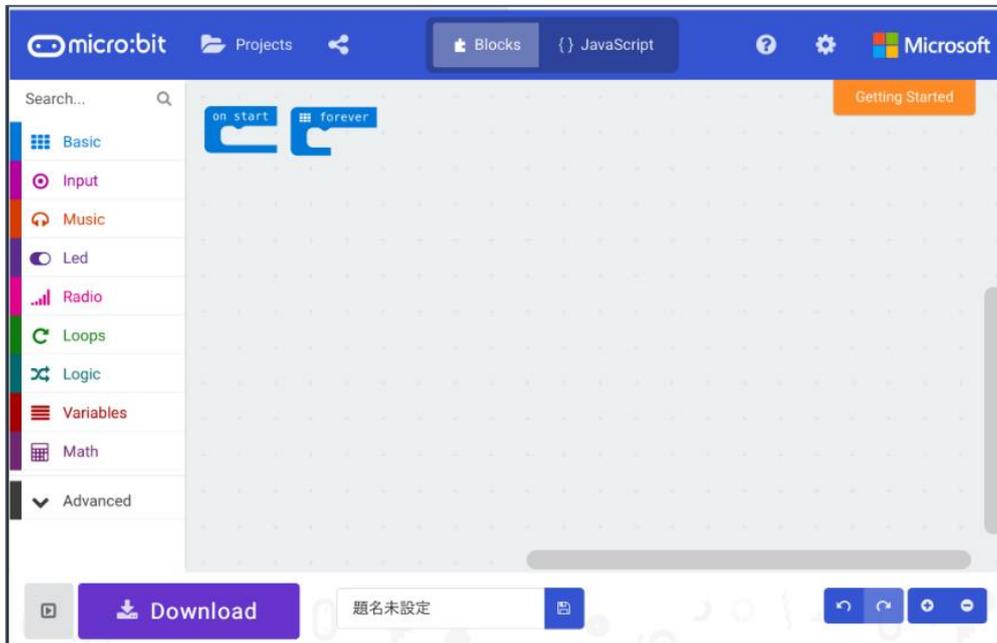


The blocks will be executed from the top.



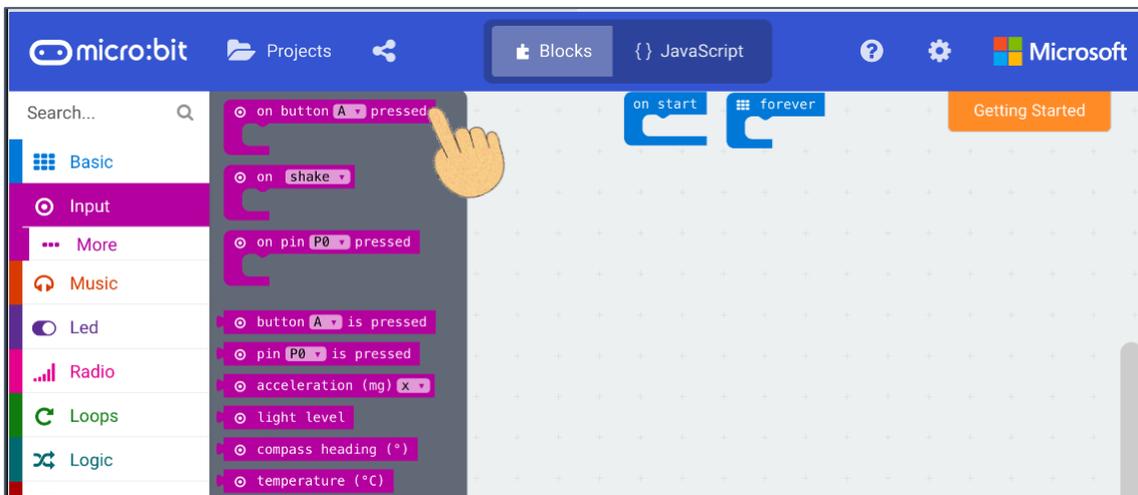
Create a “Smiley Face” and a ” Frowny Face” using JavaScript blocks.

① Open a “New Project”

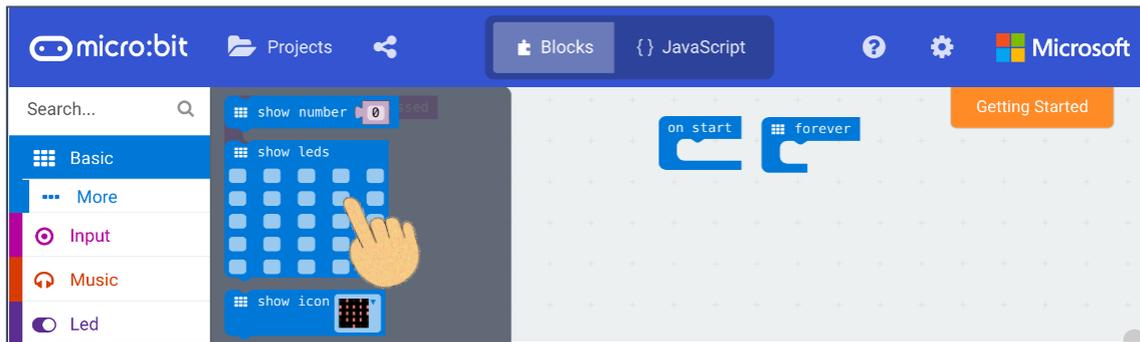


② In order to place new blocks, drag “on start” and ” forever” to the right.

③ “Input” → Click “on button A▼ pressed” .

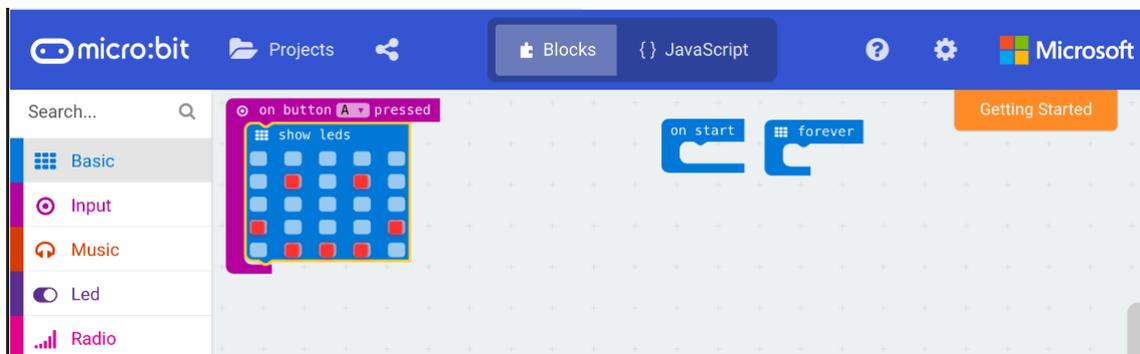


④ “Basic” → Click “show leds” .



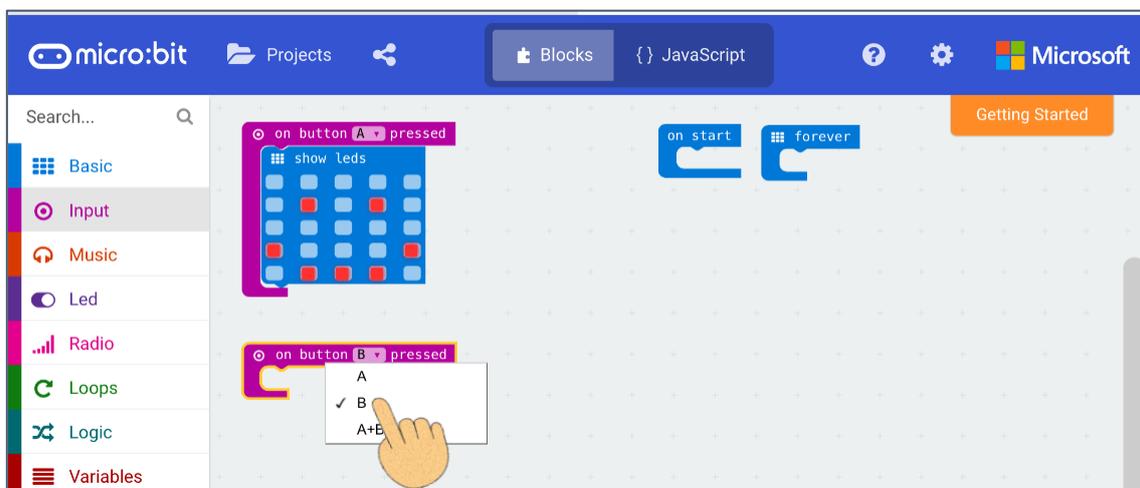
⑤ Position “show leds” underneath “on button A▼ pressed”

⑥ Create a smiley face by clicking small rectangles in “show leds” .



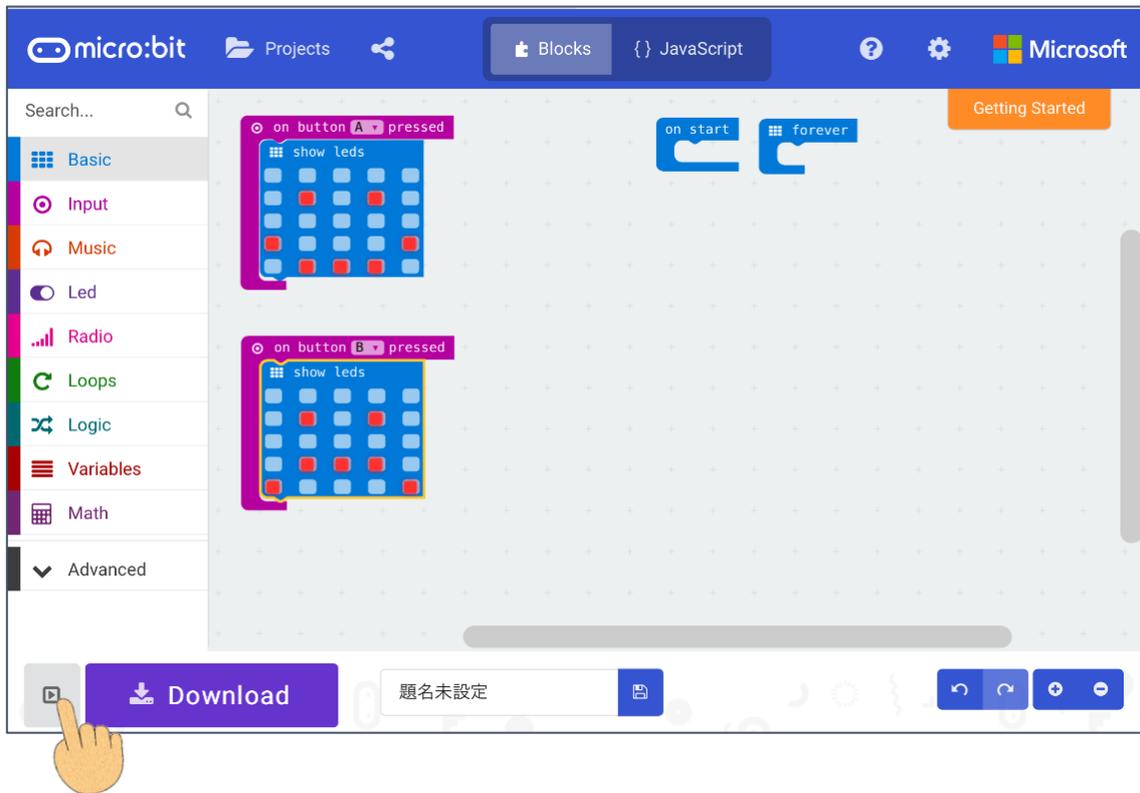
⑦ “Input” → Click “on button A▼ pressed” .  
Position it under the smiley face if they overlap.

⑧ Click the ▼ mark in “on button A▼ pressed” and click “B” .

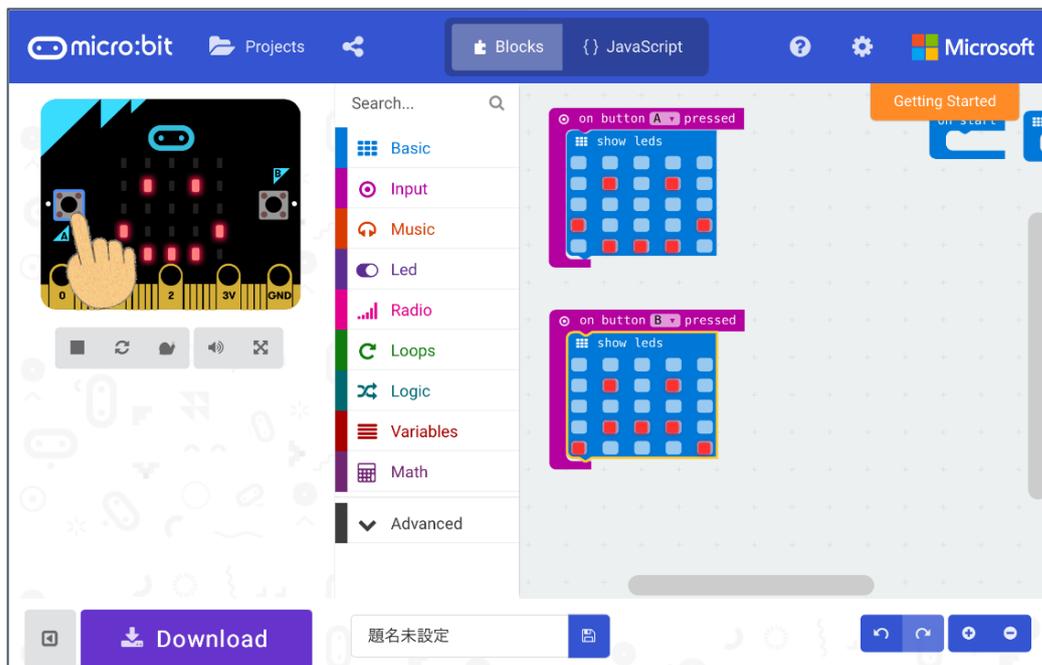


⑨ “Basic” → Click “show leds” .  
Place “show leds” underneath “on button A▼ pressed” .

⑩ Create a frowny face by clicking small rectangles in “show leds” .



❖ Click the  mark in the bottom left corner and click button A or button B to review the faces.



The instructor will transfer the program to micro:bit.

Please raise your hand once you confirm that a smily face appears when button A is pressed and a frowny face appears when button B is pressed.

Give the instructor the title of the program you would like to name.

You can create more patterns in “show leds” if you have extra time.

