

## day69 micro:bit buttons setup

Thursday 2/23/23 (6th period), Friday 2/24/23 (7th period)

Today we're going to play with the micro:bit's buttons. There are two buttons, `button_a` and `button_b`, clearly labeled on the micro:bit. Buttons have three methods that can be used with either button:

```
is_pressed()      was_pressed()      get_presses()
```

The first two are booleans (that means they return either `True` or `False`) and the last one returns a number.

Here is an example of code using `is_pressed` with `button_b` where the micro:bit displays a heart if the user is pressing the B button and otherwise shows a question mark.

```
while True:
    if button_b.is_pressed():
        display.show(Image.HEART)
    else:
        display.show("?")
```

Here is an example of waiting for a few seconds and then checking if `button_b` was pressed during the pause:

```
while True:
    sleep(5000)
    if button_b.was_pressed():
        display.show("!")
    else:
        display.show(Image.HEART)
```

Finally, here is an example of code that waits and then displays how many times the user pressed `button_a`:

```
sleep(5000)
c = button_a.get_presses()
display.scroll(str(c))
```

Notice that you have to put the number, `button_a.get_presses()`, into an `str()` call to turn it into a string before you are able to display the number. The `display.scroll()` function only displays text.

A whole tutorial on how to use buttons is at the following link on the micro:bit web site if you want more information or examples. You don't have to go through it, but if you're struggling or want more information or ideas, please do.

<https://microbit-micropython.readthedocs.io/en/latest/tutorials/buttons.html>

This page is not today's assignment, but you need to try out these commands before trying to do today's assignment. Write a few programs to try out how buttons work. I will be walking around to check in and help.