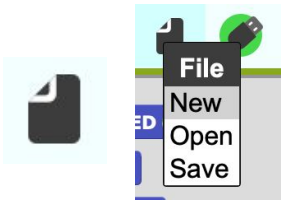
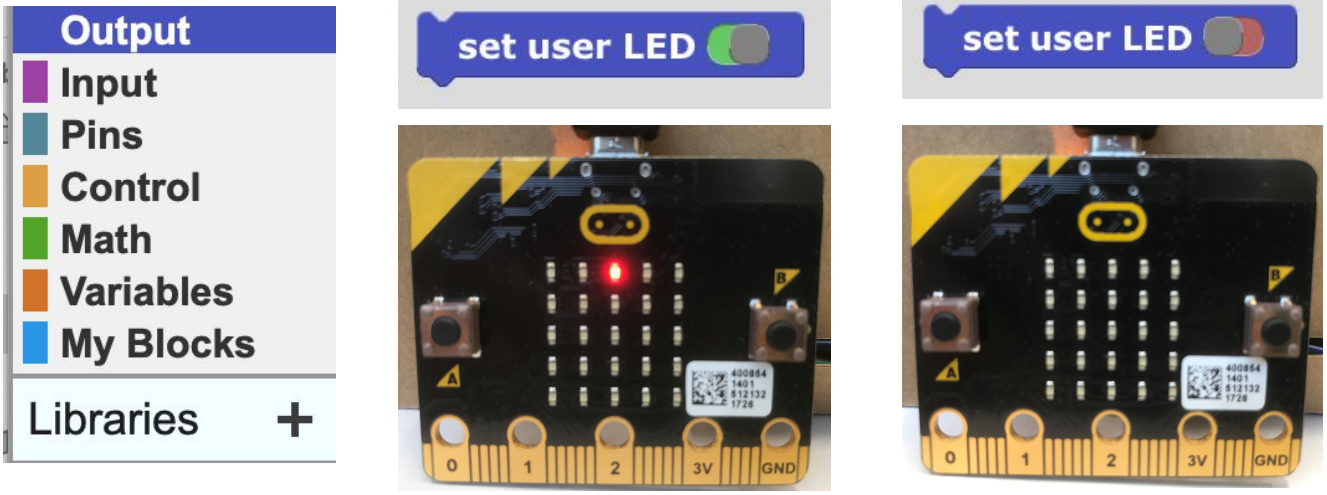
# Hello LED - basic

Connect the BBC micro:bit to MicroBlocks.
(Make sure the icon turns green.)

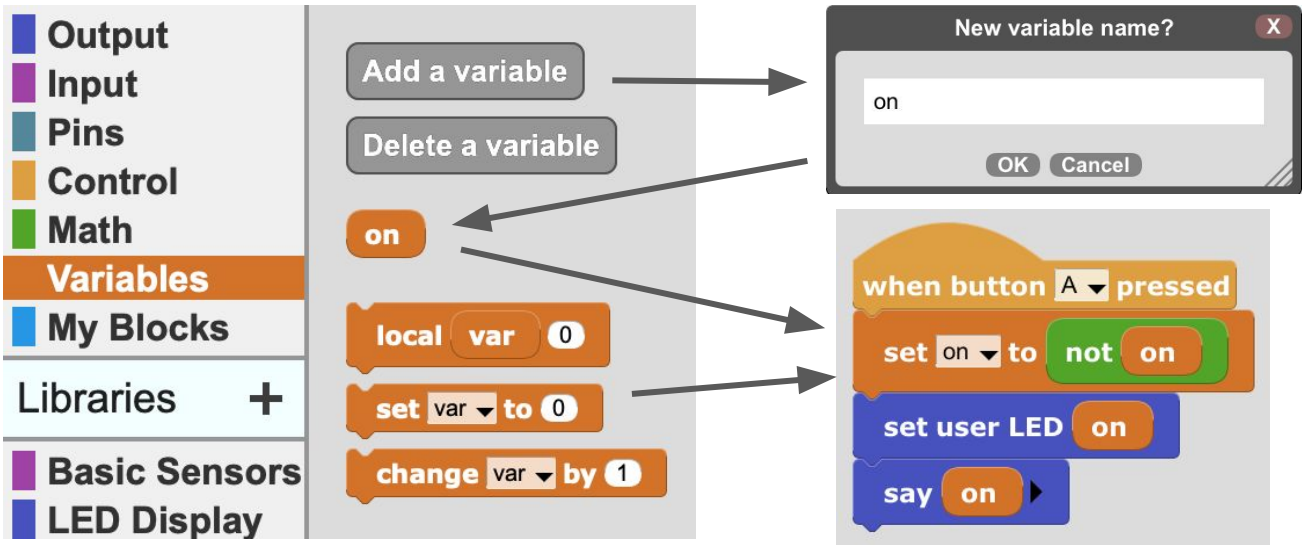



Select “New” to start with a clean stage.

Click set user LED with the switch state on and off.




Create an on variable to control the LED state, and trigger the state change with a button press.



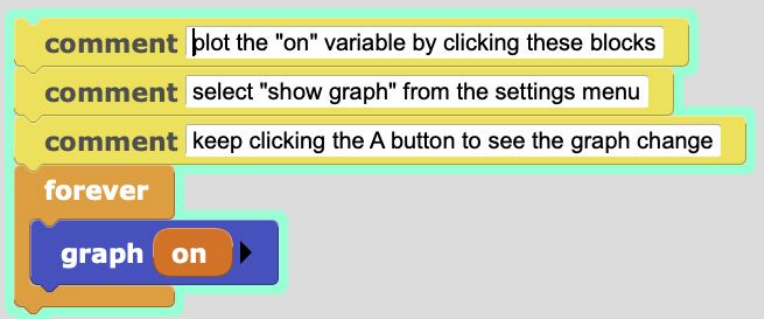



http://microblocks.fun

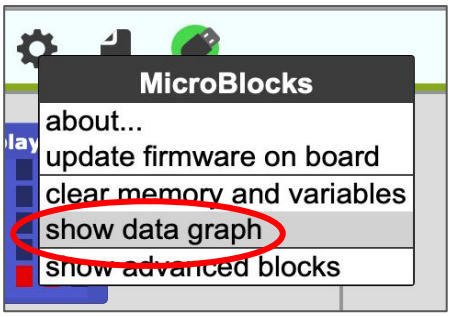
# Hello LED - graphing data

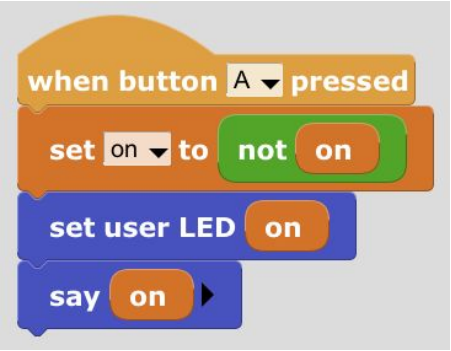
Example “HelloLED-graph.ubp”.

Log the on variable so that you can graph its state.

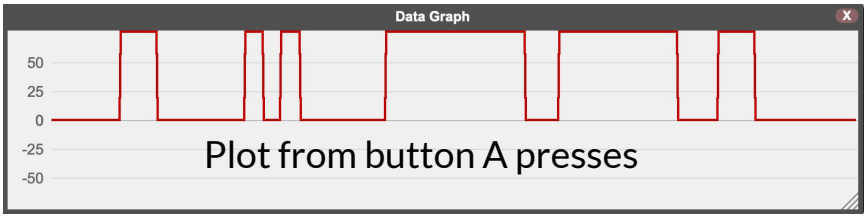


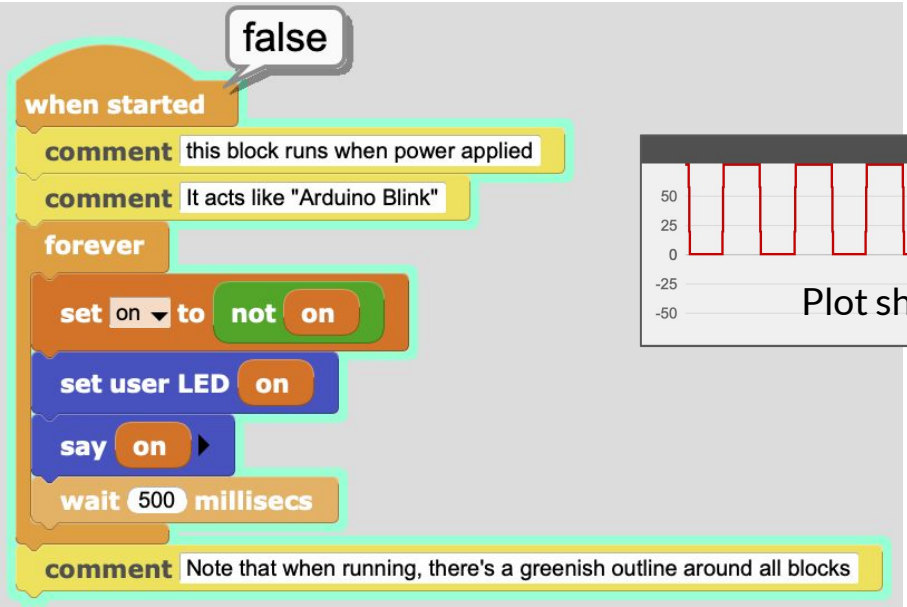

Select “show graph data” from the MicroBlocks “gear” menu.



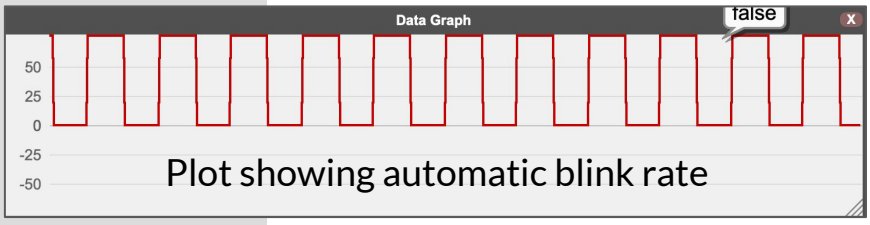




Press button A to see the LED/graph toggle.




Click ▶ to see the LED blink.




What happens if you change the wait time?

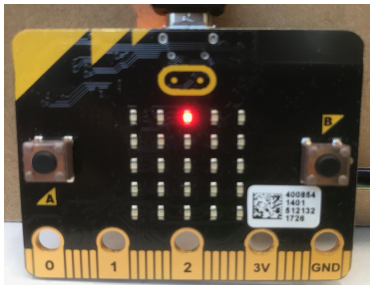
# Hello LED - radio

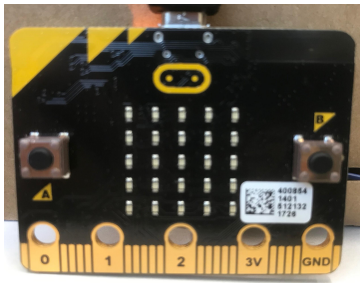
Example “HelloLED-radio.ubp”.
Run same program on 2 or more micro:bit boards.

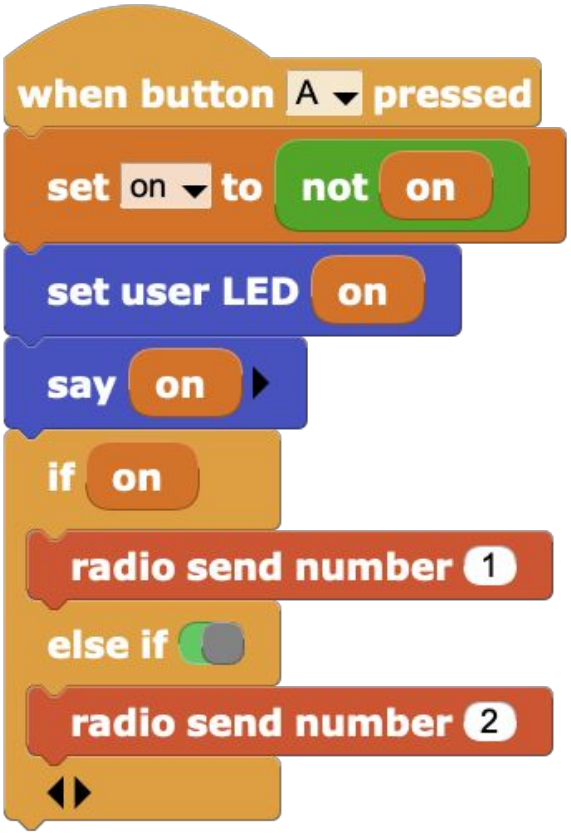
Set the LED state on your own board, and broadcast the change to everyone else as well!

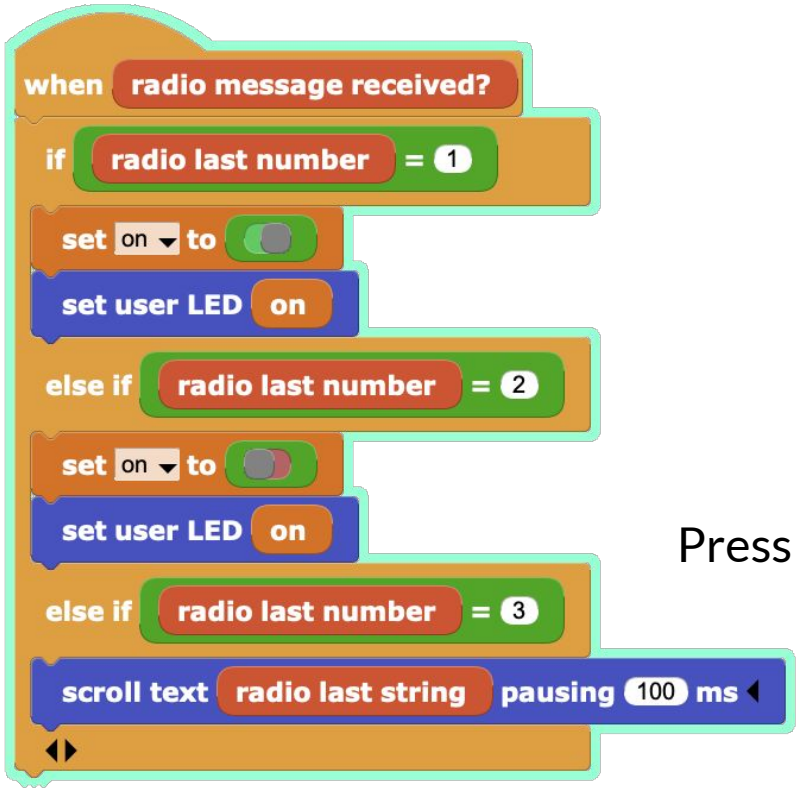
Radio “1” = LED on
Radio “2” = LED off
Radio “3” = “text”


Press button A to see the user LED toggle.

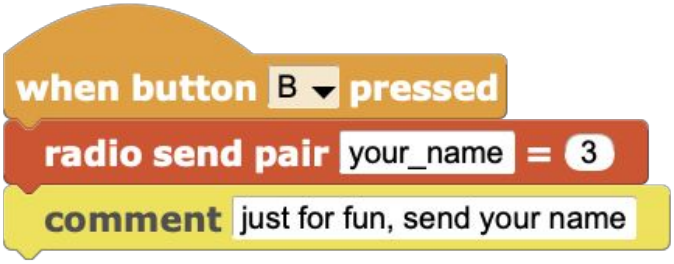






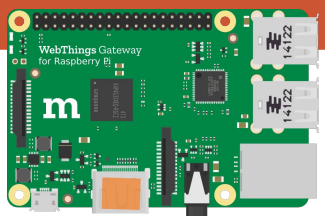




Press button B to broadcast your name.



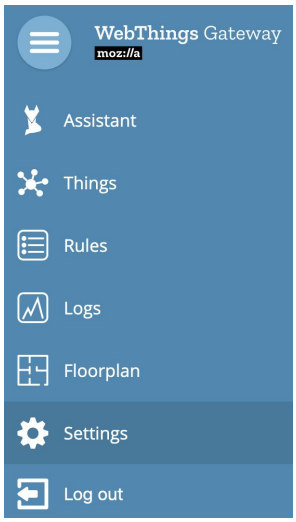

Share and receive messages with other micro:bit boards.

# Mozilla WebThings Gateway

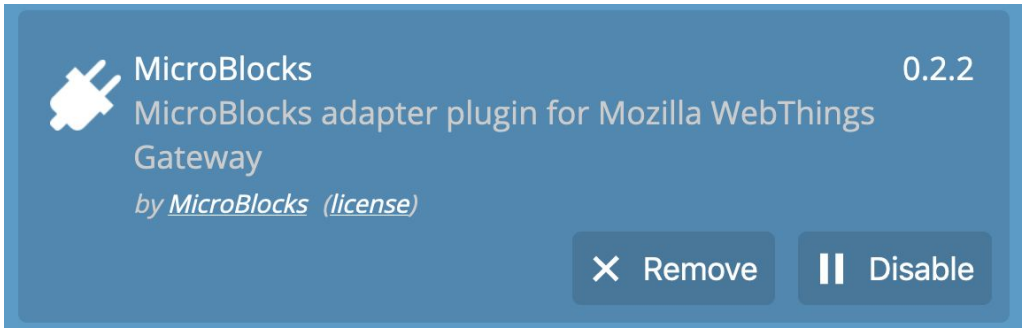



First set up a **Mozilla WebThings Gateway**
https://iot.mozilla.org/gateway

For boards connected to the gateway over USB, you must also install the **MicroBlocks Add-on**. Under **Settings** > **Add-ons**, if the MicroBlocks Add-on is not installed, click "+" to browse and add it.



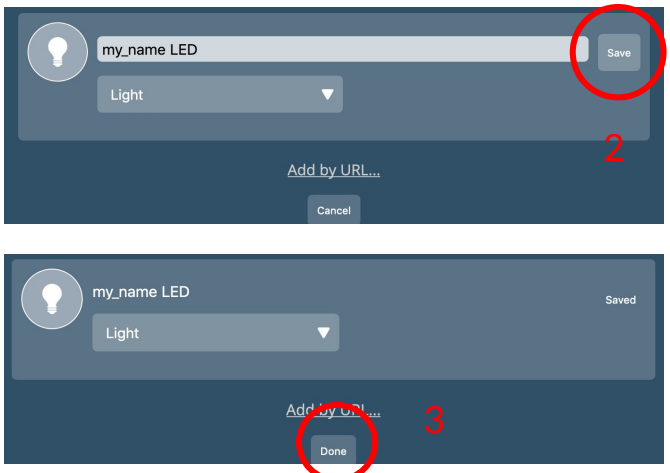





Connect the micro:bit over USB then click "+" from the "Things" page to discover and add the micro:bit as a "web thing".

1. Click "+"


2. & 3. Discovery scan (Click "Save", "Done")




4. New Thing added!


(Tip: in MicroBlocks, change the thing "Hello LED" to **your name** to more easily identify your board.)



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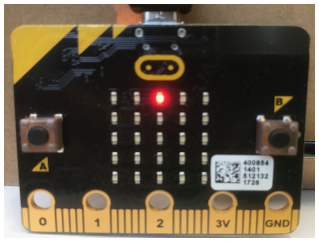
# HelloLED - webthing

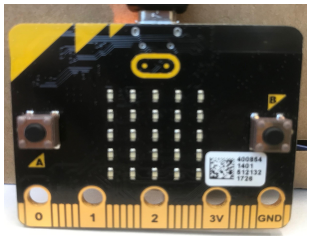
Example “HelloLED-webthing.ubp”.
After running the example, connect the micro:bit board to the WebThings Gateway via USB.

Libraries +

Web of Things

Press button A to toggle the user LED.





Or press the web page icon to toggle the LED.