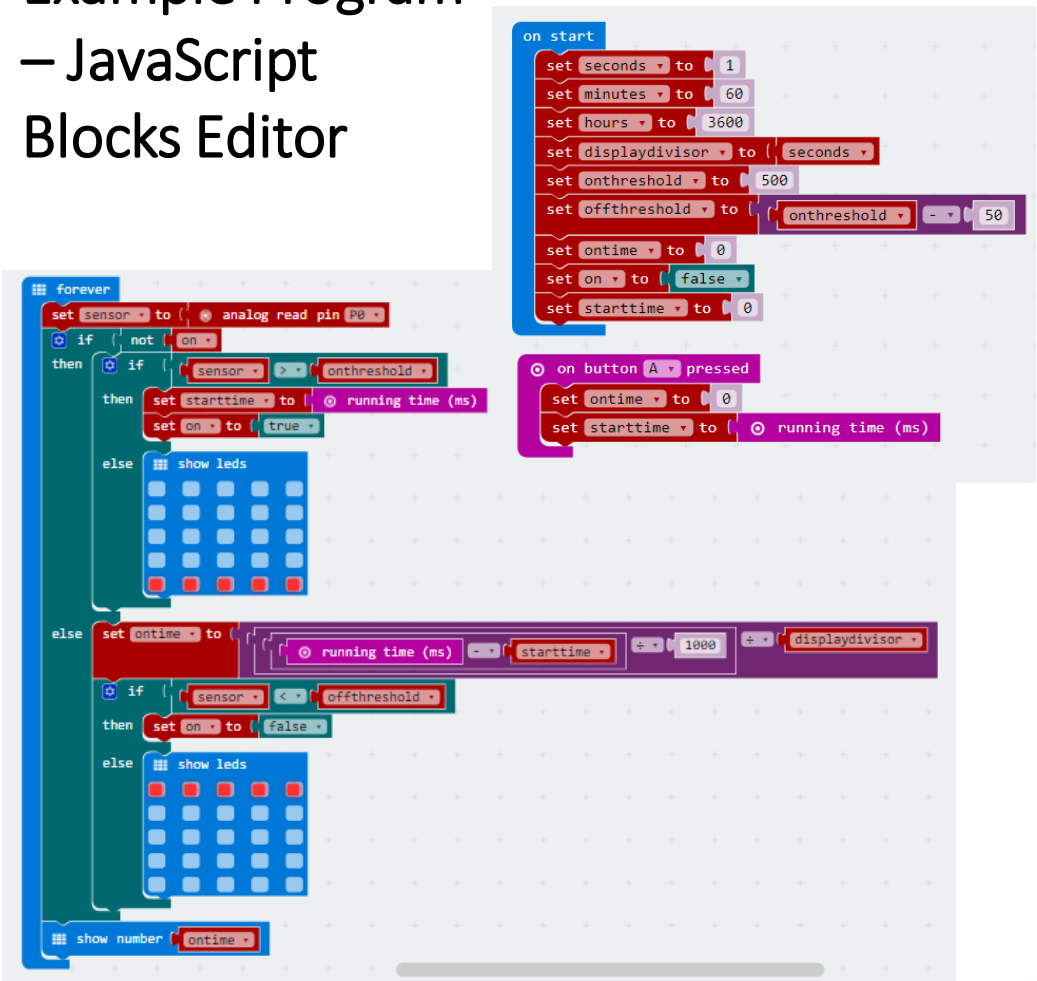
Example Program – JavaScript Blocks Editor



- Go to www.microbit.org/code and open the **JavaScript Blocks Editor.**
- Drag the file **microbit-energyuse-jsb.hex** onto the work area.
- This program will display the **amount of time** that a sensor attached to **pin 0** is **'high'.**
- Test it, download it and **experiment** with how it works!

```
from microbit import *

SECONDS = 1
MINUTES = 60
HOURS = 3600
OFF = Image("00000:00000:00000:00000:99999")
ON  = Image("99999:00000:00000:00000:00000")

display_divisor = SECONDS
on_threshold = 500
off_threshold = on_threshold - 50
on_time  = 0
on = False
start_time = 0

while True:
    if button_a.was_pressed():
        on_time = 0
        start_time = running_time()

    sensor = pin0.read_analog()
    if not on:
        if sensor > on_threshold:
            start_time = running_time()
            on = True
        else:
            display.show(OFF)
            sleep(400)
    else: # on
        on_time = int((running_time() - start_time) / 1000 / display_divisor)
        if sensor < off_threshold:
            on = False
        else:
            display.show(ON)
            sleep(400)


    if on_time < 10:
        display.show(str(on_time))
    else:
        display.scroll(str(on_time))
    sleep(400)
```

Example Program – Python Editor

- Go to www.microbit.org/code and open the **Python Editor.**
- Drag the file **energyuse.py** onto the work area.
- This program will display the **amount of time** that a sensor attached to **pin 0** is **‘high’.**
- Test it, download it and **experiment** with how it works!