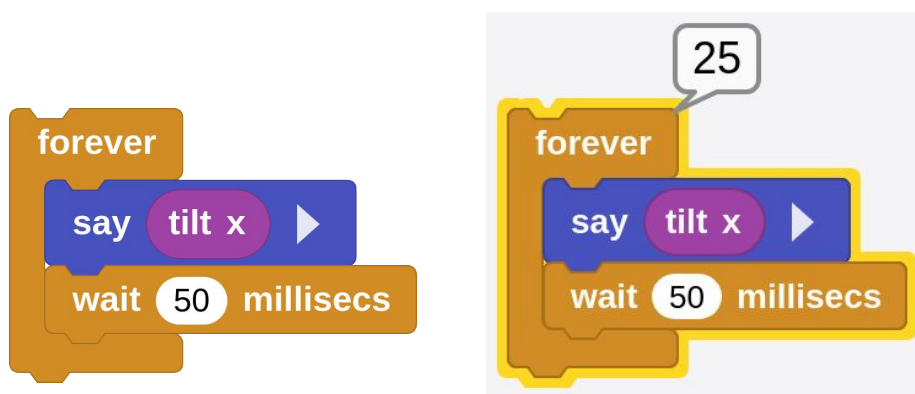



# micro:bit | Sensors

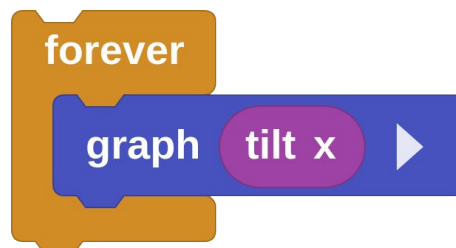
Libraries: **LED Display** **Basic Sensors**

The micro:bit has many sensors built right in! They include tilt, temperature, buttons, and light sensors.

Click on a **tilt x** block by itself to see what number it reports. Then use this script to show a sensor's value continuously as it changes.



Graphing is another way to explore sensors. Start this script, then click  to see the graph.



As you tilt the micro:bit, you will see the graph change. Try shaking it gently to see something like this!



# micro:bit | Sensors

These scripts change the LED display when the micro:bit is tilted.

```

when tilt x < -20
  display
  wait 100 millisecs
  clear display
  
```

```

when tilt x > 20
  display
  wait 100 millisecs
  clear display
  
```

```

when started
  forever
    if light level < 20
      display
    else
      clear display
    wait 100 millisecs
  
```

The micro:bit also has a light sensor. This script turns on the LED display when it gets dark. Cover the micro:bit with your hand to see how the micro:bit responds!

The micro:bit also has a temperature sensor. This graph shows the temperature every minute over the course of many hours. The data were collected with the micro:bit in the freezer and the USB cable coming out to a laptop. Why do you think the temperature goes up and down?

```

when started
  forever
    graph temperature (°C)
    wait 60000 millisecs
  
```

