

## Investigating the world around us cont.

### Level up - thermometer 2

Here is an alternative thermometer that keeps track of the lowest and highest temperatures recorded by using 3 variables.

```

on start
  set current-temperature to temperature (°C)
  set max to current-temperature
  set min to current-temperature
  
```

The 'current-temperature variable' is set to the current temperature reading, max is set to the maximum and min is set to the minimum temperature reading.

```

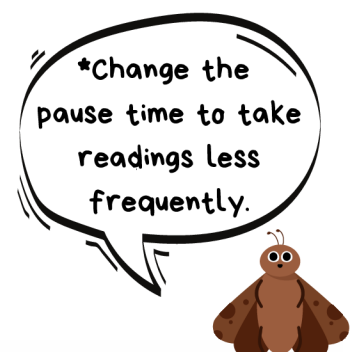
forever
  show string .
  set current-temperature to temperature (°C)
  if current-temperature < min then
    set min to current-temperature
  if current-temperature > max then
    set max to current-temperature
  pause (ms) 1000
  clear screen
  pause (ms) 1000
  
```

The forever loop takes a new reading every two seconds\*. It also flashes a dot on the LED display so that you know it's working.

If the current temperature is less than (<) than the value stored in the min variable, it changes the min variable to be the same as the current temperature.

If the current temperature is greater than (>) the max variable's value, it changes the max variable to be the same as the current temperature.

How about monitoring the temperature throughout the day. If you have more than one micro:bit, you can compare different locations at the same time.



## Investigating the world around us cont.

### Level up - thermometer 2 continued

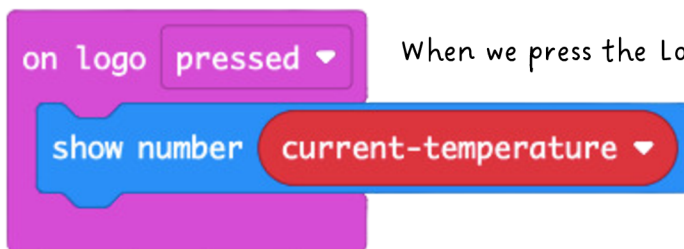
Continue adding code.



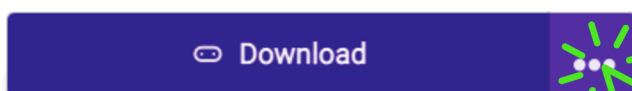
When we press the A button, it tells us the minimum temperature recorded.



When we press the B button, it tells us the maximum temperature recorded.



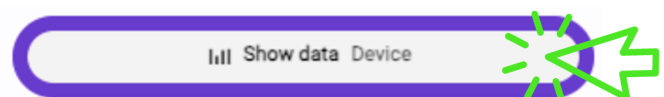
When we press the Logo, it tells us the current temperature.



Click 'Download' to send the code to your micro:bit.

Click on 'Show data' in the MakeCode editor to see real-time data for the temperature. You can track how your environment changes over time.

How about leaving the micro:bit running for 24 hours, record the maximum and minimum temperatures and plot on a chart at the same time every day.



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