

Investigating the world around us

Anemometer (Wind force monitor)

In this project we are using the micro:bit's built in accelerometer to measure wind force.

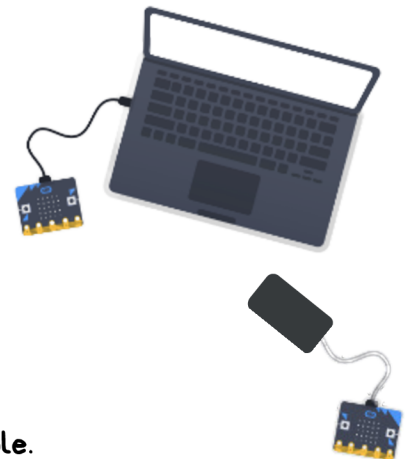
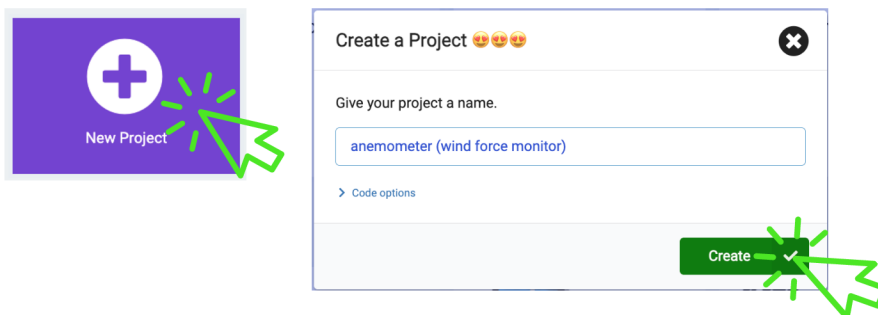
To make a working anemometer, you will need:

Stiff cardboard and card or correx, dowel rod or bbq skewer (30cm), drinking straw, tape, glue, a heavy book or something to weigh it down so it doesn't blow away!

Let's get coding!

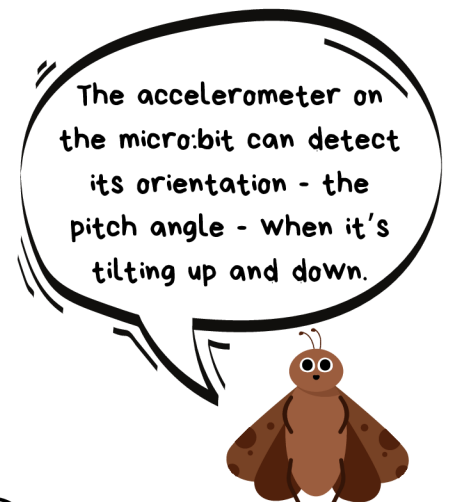
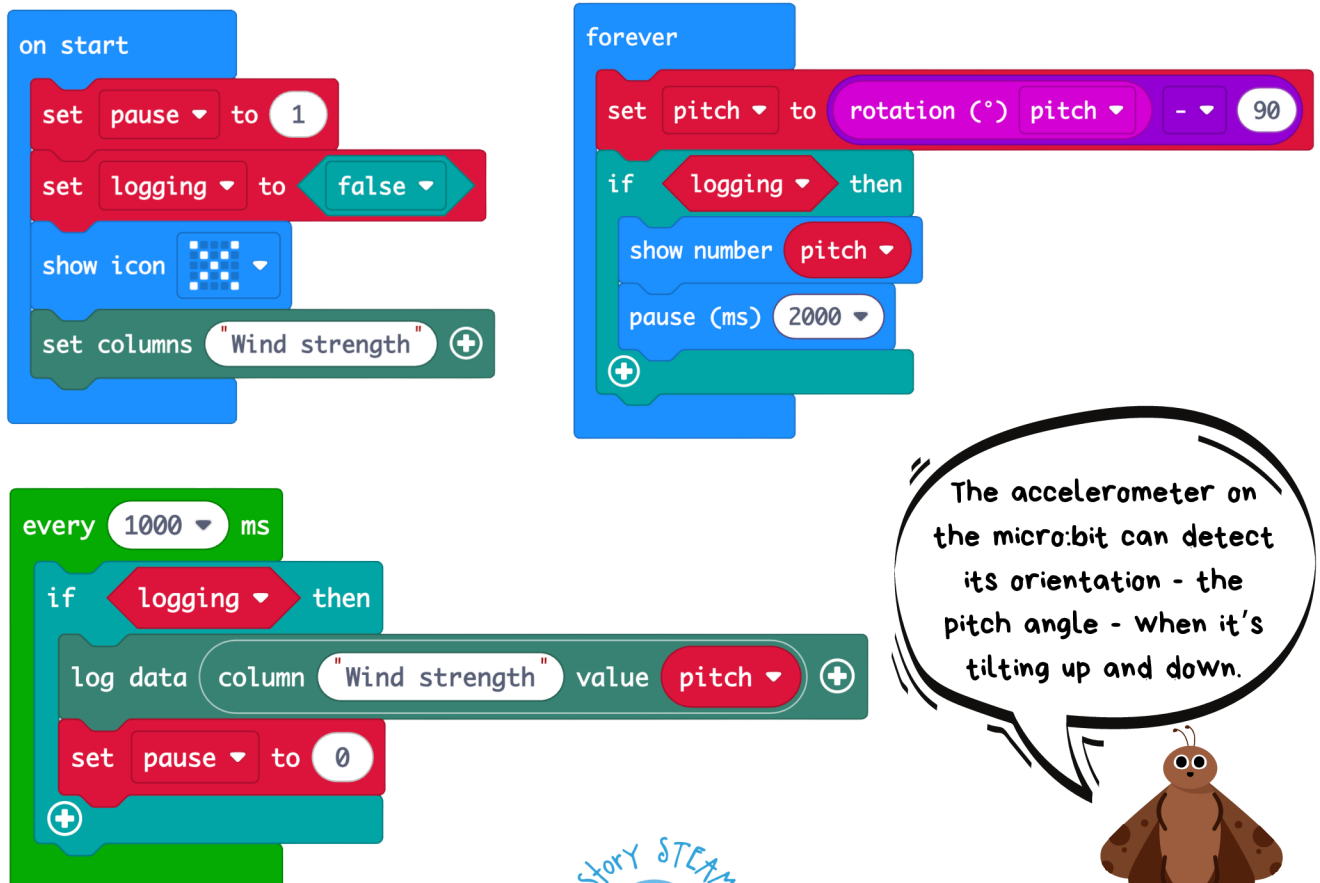
<https://makecode.microbit.org/>

Click on 'New Project' and give your project a name.



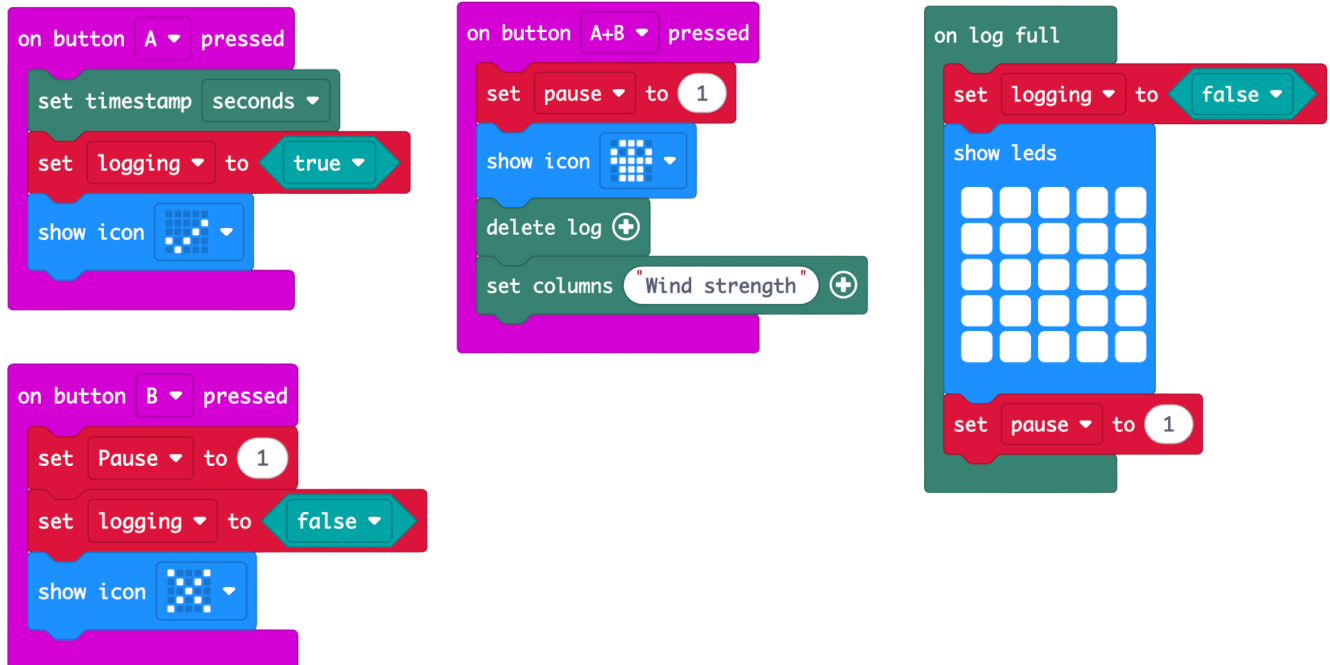
Connect your main micro:bit to the computer using the USB cable.

Here is the code for this project:



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Anemometer (Wind force monitor) cont.



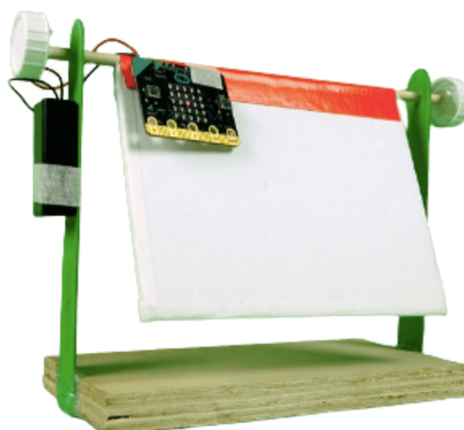
Now build your anemometer (wind force monitor) and attach the micro:bit.

You are welcome to adapt the design according to the materials you have available. Here, I've used correx, 2x large craft sticks, 2 x bottle caps and a dowel rod threaded through a drinking straw. I taped the correx onto the drinking straw and glued the craft sticks onto a piece of wood. You might need to weigh your anemometer down so that it doesn't blow over in the wind!

Bottle caps

micro:bit and
battery case

Heavy base



Drinking straw

Dowel rod

Large craft sticks.

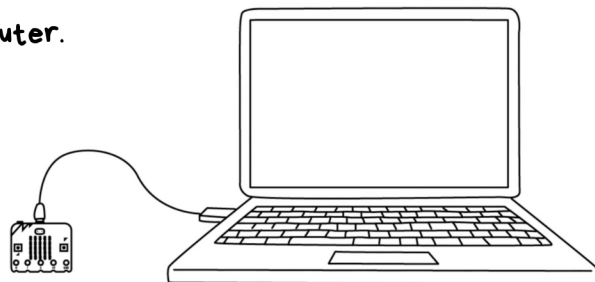
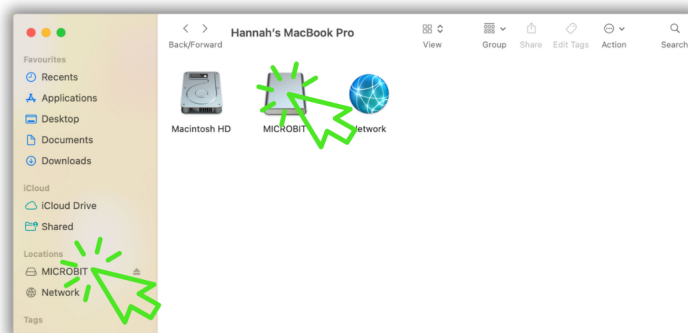
Attach the micro:bit to the flap as shown in the picture and tape the battery case to the side. Put your anemometer outside with the wind behind the moving flap. Press button A to start collecting wind force data. Press button B to stop or pause.

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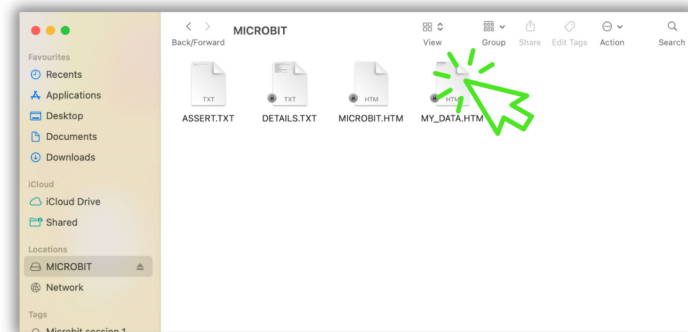


Anemometer (Wind force monitor) cont.

To collect the data, plug your micro:bit into a computer.

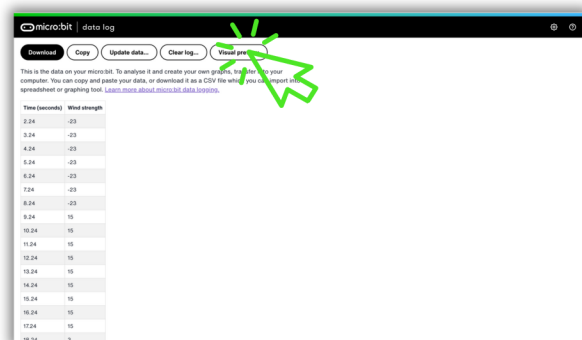


Find the micro:bit icon or button in 'locations' and view it as a device. (Double Click).



Look for a file called MY_DATA.htm. This is where the data has been stored. (Double Click).

Click on 'Visual preview' to see a graph.



You can download the data as a CSV file to open in a spreadsheet and make you own graph!

Invent your own wind force scale eg 10 to 30 = Low. 31 to 60 = Moderate. 61 to 90 = High!

If you see a negative number, it means the wind is blowing the flap backwards!



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