Who is this?

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Micro:bit Programming - sensors

- What happens when the sailor is asleep?
- How would they know if the boat was in danger?
- How would they know if there was a chance of icebergs?
- How would they know if it was dark?

Could a micro:bit help?

Micro:bit Programming - sensors

One of the sensors is the **accelerometer**.

This measures speed, movement, direction and how the micro:bit is tilted.

It can be used to warn the sailor if the boat is in danger of capsizing…

```
accelerometer.get_x()
```

Micro:bit Programming - sensors

Using the **Python Editor**…

Write a program to measure the tilt of the micro:bit

Challenges:

1. how sensitive is the tilt reading?
2. far does the reading go?
3. what happens when it goes the other way?
4. what is a sensible reading to alert the user at?
5. can you measure the backwards/forwards tilt?

```
1   # Boat tilt code
2   from microbit import *
3
4   while True:
5       reading = accelerometer.get_x()
6
7       if reading > 20:
8           display.show("R")
9
10      #code the other tilt
11
```