

# microbit / Magic 8-Ball

## Step Zero: Get MicroPython

On Google Chrome, find [the app 'MicroPython' in the Web Store](#) - it's free. This will allow you to write Python scripts and upload them to the Microbit. If you're reading this online, click the link to be put straight through to it.

## Step One: Write an '8' to the screen

In the Microbit app, write the following code:

```
from microbit import *  
import random  
  
while True:  
    sleep(1000)  
    display.show("8")
```

Upload the code to the Microbit and run it. What happens when you shake the Microbit?

## Step Two: Shake it!

Add the following code to what you have already written, inside the 'While True:'

```
if accelerometer.was_gesture("shake"):  
    display.clear()  
    sleep(1000)  
    display.show("!")
```

Upload the code to the Microbit and run it. What happens when you shake the Microbit?

## Step Three: Write some responses

We need to list our responses, and in Python we do that in an array variable. An 'array' is just a fancy word for list. Write this code before the `While True:`

```
answers = [  
    "Yes",  
    "No",  
    "Maybe",  
    "Yes, definitely"  
]
```

## Step Four: Pick a random response

To make the Magic 8-Ball pick a random response, we can get it to pick a random answer using `random.choice`.

```
sleep(1000)  
display.scroll(random.choice(answers))
```

When you shake the Microbit, this code will make the BBC microbit wait a second and then show a random answer to the question you put to it.

## Full Code

```
from microbit import *  
import random  
  
answers = ["Yes", "No", "Maybe", "Try again", "It doesn't look good", "Don't count on it"]  
  
while True:  
    display.show("8")  
    if accelerometer.was_gesture("shake"):  
        display.clear()  
        sleep(1000)  
        display.scroll(random.choice(answers))
```

More BBC Microbit projects will be available soon

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