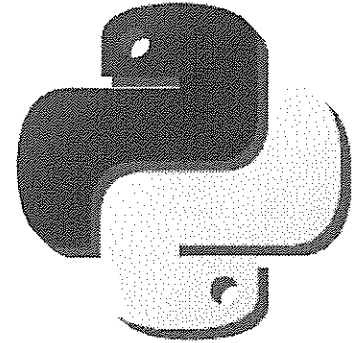


More Python Programs & Coding Tips

Show CPU Temperature

```
from microbit import *

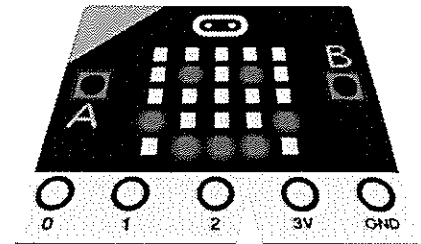
while True:
    # obtain and show CPU temperature
    t = temperature()
    display.scroll(str(t) + 'C')
    # wait 5 seconds
    sleep(5000)
```



Capture a Movement Gesture

```
from microbit import *

while True:
    # obtain the current gesture
    g = accelerometer.current_gesture()
    # is the micro:bit face up or down?
    if g == 'face up':
        display.show(Image.HAPPY)
    else:
        display.show(Image.SAD)
```



Try turning
me over ...

Build an Accelerometer Dice Shaker

```
from microbit import *
import random

while True:
    if accelerometer.was_gesture('shake'):
        # generate a random integer from 1 to 6
        diceNumber = random.randint(1,6)
        # show the dice number
        display.show(str(diceNumber))
        sleep(1000)
```

Can you
shake a
6?

Make a Spirit Level

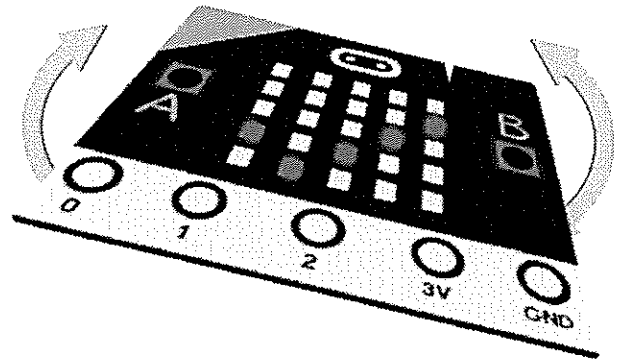
```

from microbit import *

while True:
    x = accelerometer.get_x()
    val = x // 20
    if val > 0:
        display.show(Image.ARROW_E)
    elif x < 0:
        display.show(Image.ARROW_W)
    else:
        # Yes - I am level
        display.show(Image.YES)

```

Can you
keep me
level?



Find North with the Compass

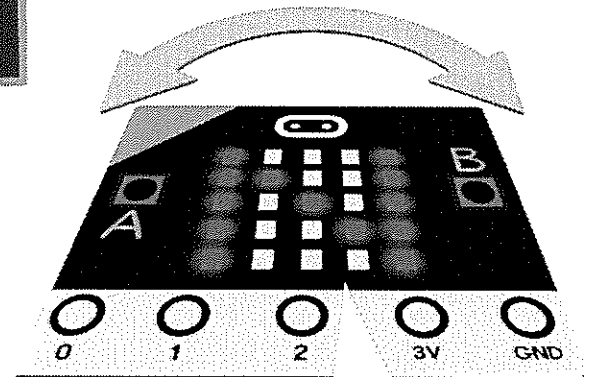
```

from microbit import *

# draw a circle calibration
compass.calibrate()

while True:
    sleep(100)
    val = compass.heading()
    if (val < 10 or val > 350):
        display.show('N')
    else:
        display.show(Image.NO)

```



Hold me flat
and turn me
to find North

Some Python Coding Tips

```

# comments like this make code easier to understand

# this is how to create an endless loop
while True:
    # but make sure you indent your loop code

# str() converts integer numbers to strings
age = 9
display.scroll('I am ' + str(age) + ' years old')

```