Python Cheat Sheet

Print

Use the print function to get something back from your code

```
print('Hello world!')
```

Comments

Comments starts with a #, Pyhton will ignore what you type afterwards

```
# Writing a comment is as easy as that
```

Variables & Types

Variables are used to assign values to labels

Text variables

```
msg = 'This is a text' # Text variables are encased by single or double quotes
print(msg)
```

Number variables

```
number = 10 # numbers are written without quotes
print(number)
```

Boolean variables

```
switch = True # Boolean variables can be either True or False
```

Lists

```
numbers = [1, 2, 3]
print(numbers[2])
```

Operators

Operators are used to perform operations on variables and values

Calculations can be done with mathematical operations

```
print(2 + 1) # Addition
print(2 - 1) # Subtraction
print(2 * 2) # Multiplication
print(4 / 2) # Division
```

Operators can be used to compare values

```
print(1 == 1)     # Equal
print(2 > 1)      # Bigger
print(1 < 2)      # Smaller
print(not 1 == 2) # Not equal, reverse the condition
```

Conditions

Comments starts with a #, and Python will ignore them

Check if two values are the same

```
a = 33
if a == 33:
  print('the value of a is 33')
```

Loops

To repeat a block of code, we can use loops

For loop

```
for count in range(5): # Count from 0 to 4
  print(count)
```

Infinite Loop

```
while True:
  print('this will run forever')
```

Modules

There are several built-in modules in Python, which you can import whenever you like

Time module

```
from time import sleep


sleep(1) # pause the program for 1 second
print('finished')
```

Random module

```
from random import randrange, random


number = random() # Generate a random number between 0.0 and 1.0
print(number)
dice   = randrange(1, 7) # Generate a random number between 1 and 6
print(dice)
```

Built-in LED

Controll the built-in LED

```
from picozero import pico_led


pico_led.on() # Turn the LED on
pico_led.off() # Turn the LED off
```