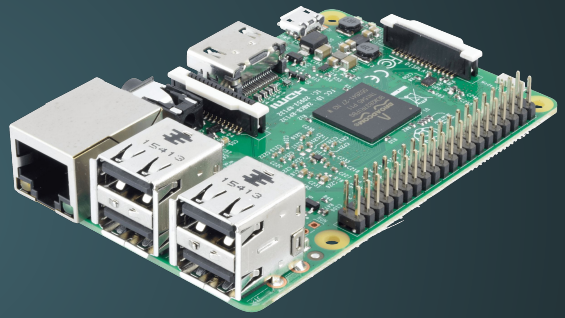
Python and Raspberry Pi



PyDiff Lightning Talk Series
17th April 2018

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Step 1 - Basic Coding: Flashing LEDs

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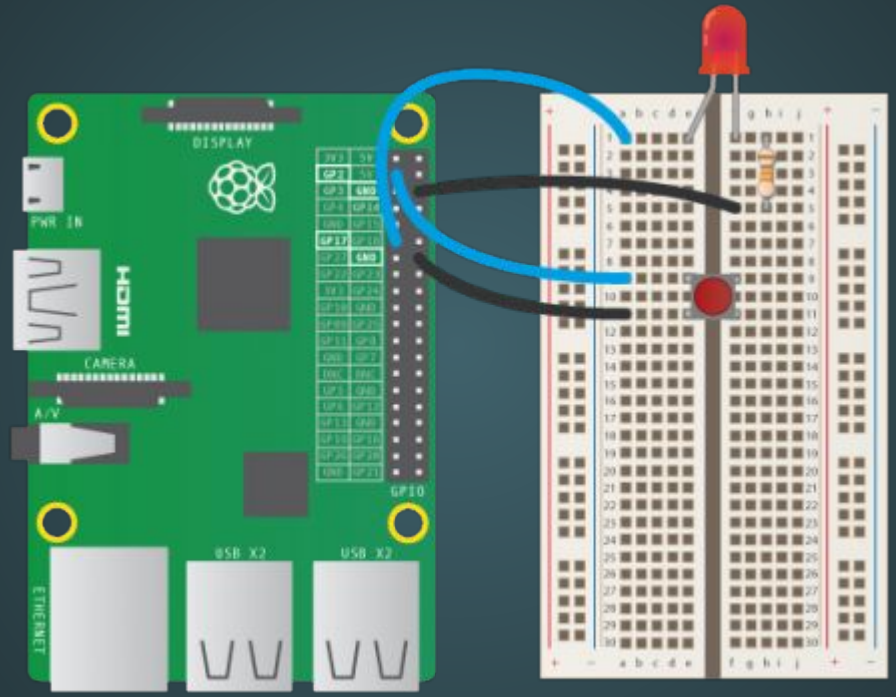

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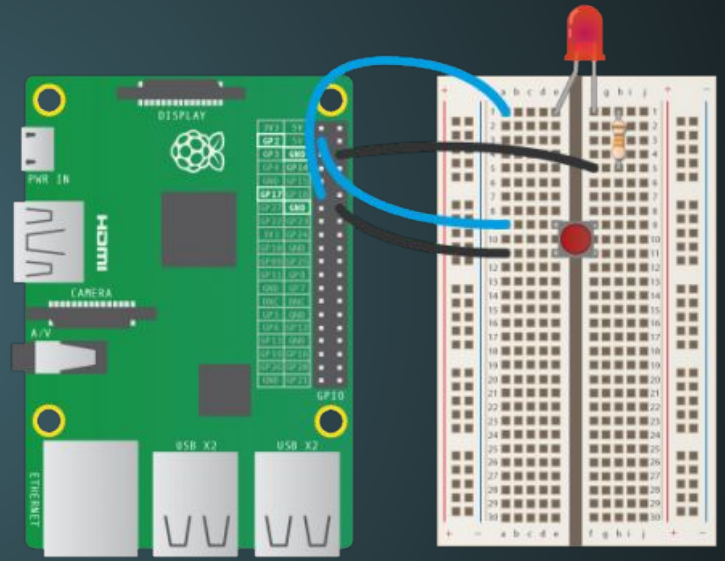
Step 1 - Basic Coding: Flashing LEDs

```
from gpiozero import LED, Button
from signal import pause

led = LED(17)
button = Button(2)

button.when_pressed = led.on
button.when_released = led.off

pause()
```



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Step 2 - On-screen = Real World

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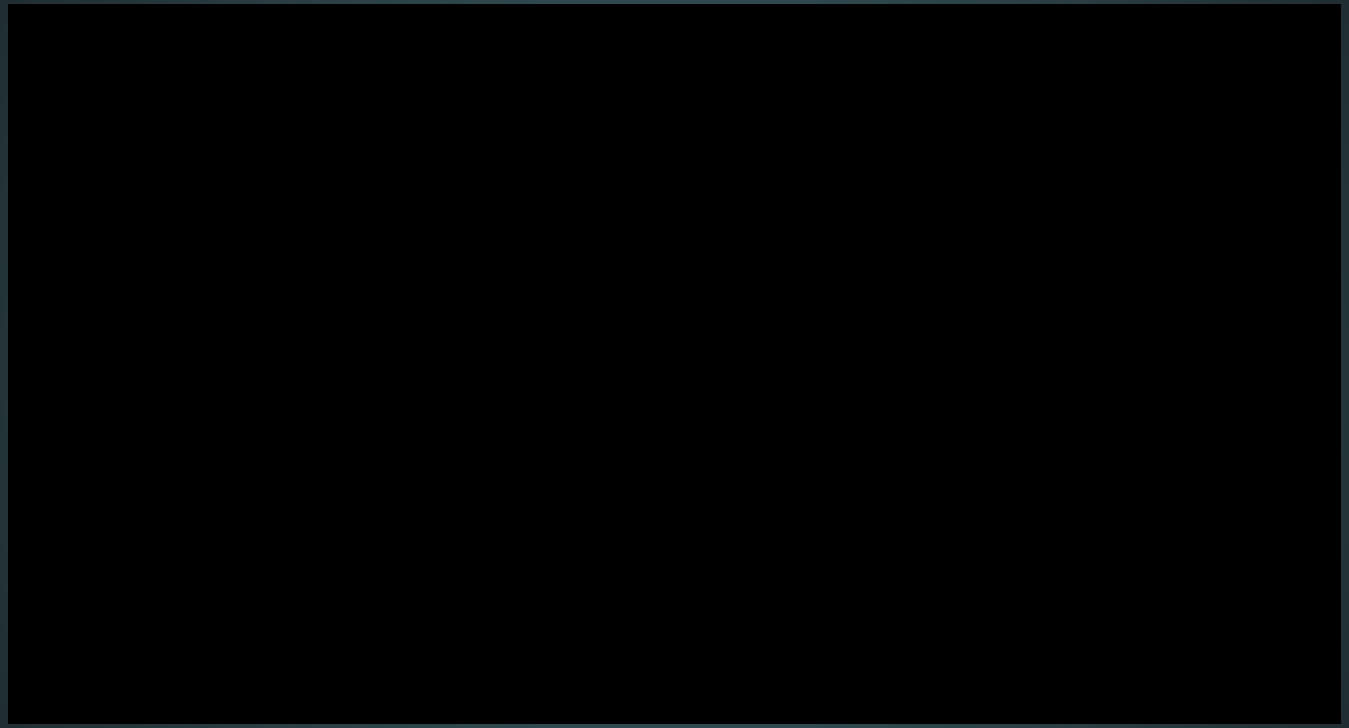
Step 2 - On-screen = Real World

```
import explorerhat as eh
import explorercraft as ec
from time import sleep

X, Y, Z = 0, 20, 0
therm = ec.Thermometer(X,Y,Z)

while True:
    temp = eh.analog.one.read()
    therm.update(temp)     # Update on-screen thermometer
    sleep(0.1)
```

Step 2 - More Advanced: Web Frameworks



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Step 2 - More Advanced: Web Frameworks

```python
from bottle import route
from gpiozero import CamJamKitRobot

@route('/forward')
def action_forward():
      robot.forward()

if __name__ == '__main__':
      robot = CamJamKitRobot()

      ### set up web server on localhost ###
```

```
<!-- HTML preamble -->

<button onmousedown="robotMove(1)">Forward</button>
<script>
    function robotMove(direction) {
    var url;
    switch(direction) {
        case 1:
            url = "/forward";
            break;
      // open HTTP request
</script>
```


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Thank you!

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