

Assignment 3

To initialize the GPIO ports on the Raspberry Pi we need to first import the Python library, then initialize the library and setup pin 8 as an output pin.

```
import RPi.GPIO as GPIO    # Import Raspberry Pi GPIO library

from time import sleep      # Import the sleep function from the time module

GPIO.setwarnings(False)

GPIO.setmode(GPIO.BOARD)

GPIO.setup(8, GPIO.OUT, initial=GPIO.LOW)
```

Next we need to turn the LED on and off in 1 second intervals by setting the output pin to either high (on) or low (off). We do this inside an infinite loop so our program keeps executing until we manually stop it.

```
while True: # Run forever

    GPIO.output(8, GPIO.HIGH) # Turn on

    sleep(1)

    GPIO.output(8, GPIO.LOW)  # Turn off

    sleep(1)
```

Combining the initialization and the blink code should give you the following full Python program:

```
import RPi.GPIO as GPIO # Import Raspberry Pi GPIO library

from time import sleep # Import the sleep function from the time module

GPIO.setwarnings(False) # Ignore warning for now

GPIO.setmode(GPIO.BOARD) # Use physical pin numbering
```

```
GPIO.setup(8, GPIO.OUT, initial=GPIO.LOW) # Set pin 8 to be an output pin and set  
initial value to low (off)
```

```
while True: # Run forever
```

```
    GPIO.output(8, GPIO.HIGH) # Turn on
```

```
    sleep(1) # Sleep for 1 second
```

```
    GPIO.output(8, GPIO.LOW) # Turn off
```

```
    sleep(1) # Sleep for 1 second
```