Lab 1

Part 1: Blinky

Original `blink.py` code:

```python
import time
import digitalio
import board

led = digitalio.DigitalInOut(board.GP15)
led.direction = digitalio.Direction.OUTPUT
for x in range(3):
    led.value = True
    print("ON")
    time.sleep(1)
    led.value = False
    print("OFF")
    time.sleep(1)
```

Part 2: SOS

`sos.py` code:

```
In [ ]: import time
        import digitalio
        import board

        led = digitalio.DigitalInOut(board.GP15)
        led.direction = digitalio.Direction.OUTPUT
        while True:
            for x in range(3):
                led.value = True
                time.sleep(0.25)
                led.value = False
                time.sleep(0.25)
            time.sleep(1)
            for x in range(3):
                led.value = True
                time.sleep(1)
                led.value = False
                time.sleep(0.25)
            time.sleep(1)
            for x in range(3):
                led.value = True
                time.sleep(0.25)
                led.value = False
                time.sleep(0.25)
            time.sleep(2)
```

Part 3: Fast Blinky

Modified `blink.py`

```
In [ ]: import time
        import digitalio
        import board

        led = digitalio.DigitalInOut(board.GP15)
        led.direction = digitalio.Direction.OUTPUT

        ON = 0.01
        OFF = 0.01

        while True:
            led.value = True
            time.sleep(ON)
            led.value = False
            time.sleep(OFF)
```

Description	ON	OFF	Observations (Brightness?)
Faster Blink	0.100	0.100	Flashes rapidly. No change in brightness.
Fast Blink: Balanced	0.010	0.010	Low brightness
Fast Blink: Mostly ON	0.019	0.001	Low brightness

Description	ON	OFF	Observations (Brightness?)
Fast Blink: Mostly OFF	0.001	0.019	Very low brightness

What happens when you shake the board back and forth?