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Department of Information Technology

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IOT ASSIGNMENT – 03

#python code for blinking LED and traffic lights for Raspberry

pi #python code for blinking LED

```
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
```

#Python code for Traffic Light

```
import RPi.GPIO as
GPIO import time
import signal import
sys

# Setup
GPIO.setmode(GPIO.BCM)

GPIO.setup(9, GPIO.OUT)
GPIO.setup(10, GPIO.OUT)
GPIO.setup(11, GPIO.OUT)

# Turn off all lights when user ends demo
def allLightsOff(signal, frame):
    GPIO.output(9, False)
    GPIO.output(10, False)
    GPIO.output(11, False)
    GPIO.cleanup()
    sys.exit(0)

signal.signal(signal.SIGINT,
allLightsOff) # Loop forever while
True: # Red GPIO.output(9, True)
time.sleep(3)

# Red and amber
GPIO.output(10,
True) time.sleep(1)

# Green
GPIO.output(9, False)
```

```
GPIO.output(10,  
False)  
GPIO.output(11,  
True) time.sleep(5)  
# Amber  
GPIO.output(11, False)  
GPIO.output(10, True)  
time.sleep(2)  
# Amber off (red comes on at top of loop)  
GPIO.output(10, False)
```