**IOT BASED SAFETY GADGETS FOR CHILD SAFETY MONITORING AND NOTIFICATION**

**ASSIGNMENT**

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**Blinking LED for Raspberry pi:**

|  |
| --- |
| #!/usr/bin/env python |
|  | import RPi.GPIO as GPIO # RPi.GPIO can be referred as GPIO from now |
|  | import time |
|  |  |
|  | ledPin = 22 # pin22 |
|  |  |
|  | def setup(): |
|  | GPIO.setmode(GPIO.BOARD) # GPIO Numbering of Pins |
|  | GPIO.setup(ledPin, GPIO.OUT) # Set ledPin as output |
|  | GPIO.output(ledPin, GPIO.LOW) # Set ledPin to LOW to turn Off the LED |
|  |  |
|  | def loop(): |
|  | while True: |
|  | print 'LED on' |
|  | GPIO.output(ledPin, GPIO.HIGH) # LED On |
|  | time.sleep(1.0) # wait 1 sec |
|  | print 'LED off' |
|  | GPIO.output(ledPin, GPIO.LOW) # LED Off |
|  | time.sleep(1.0) # wait 1 sec |
|  | def endprogram(): |
|  |  |
|  | GPIO.output(ledPin, GPIO.LOW) # LED Off |
|  | GPIO.cleanup() # Release resources |
|  |  |
|  | if \_\_name\_\_ == '\_\_main\_\_': # Program starts from here |
|  | setup() |
|  | try: |
|  | loop() |
|  | except KeyboardInterrupt: # When 'Ctrl+C' is pressed, the destroy() will be executed. |
|  | endprogram() |

Traffic Lights for Raspberry pi:

# 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)