Controlling Raspberry Pi using Telegram

Installation Manual

- **Hardware Requirements**

  1. Raspberry Pi Model A/B/B+
  2. LED
  3. Breadboard
  4. Jumper Wires

1. Connect 4 LED with Raspberry Pi's GPIO Pins.

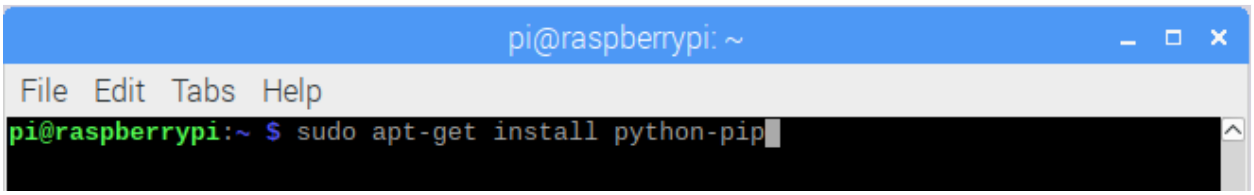
Led Terminal	Pin Number	GPIO Number
Green Positive	**Pin 31**	**GPIO 6**
Yellow Positive	**Pin 33**	**GPIO 13**
Red Positive	**Pin 35**	**GPIO 19**
Blue Positive	**Pin 37**	**GPIO 26**
Negative of all four	**Pin 9**	**GND**

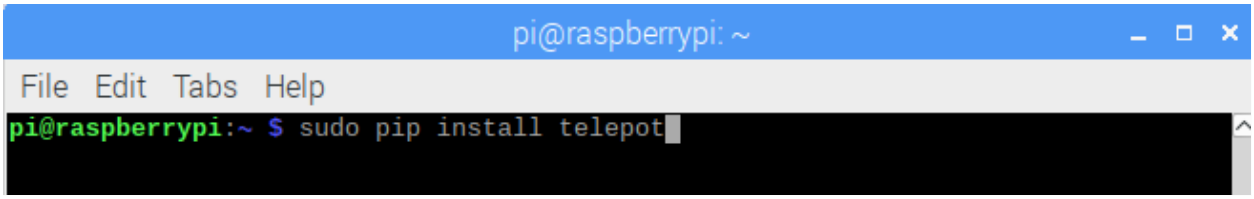
2. Install Telegram App in Mobile . Follow process to obtain access token

Raspberry Pi Telegram Bot

- Install Telegram app on your Smart Phone from Playstore.
- Open Telegram.
- Request the Bot Father to create a new Bot.
- Search "BotFather" and Click on Start
- Create new bot using /newbot
- Provide a Name for your Bot (e.g.msdtyit)
- Then ,Provide username for your Bot Must be end in "bot" (e.g. msdtyit_bot)
- After this process the BotFather will give you a Token for access.

3. Install Telegram Bot on Raspberry Pi





4. Write Python Script to blink LED with Telegram Bot

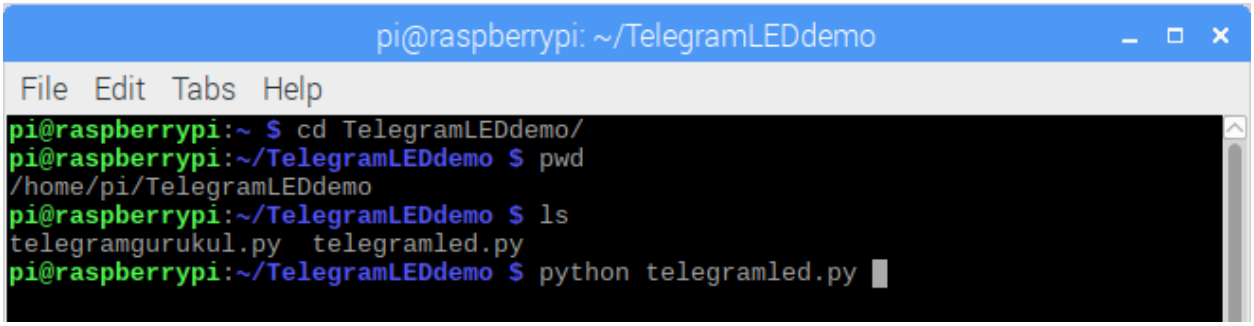
#Sample program for Light LED on/off using Telegram

```
import time, datetime
import RPi.GPIO as GPIO
import telepot
from telepot.loop import MessageLoop

green = 6
yellow = 13
red = 19
blue = 26

now = datetime.datetime.now()
GPIO.setmode(GPIO.BCM)
GPIO.setwarnings(False)


##LED Blue
GPIO.setup(blue, GPIO.OUT)
GPIO.output(blue, 0) #Off initially

#LED Yellow
GPIO.setup(yellow, GPIO.OUT)
GPIO.output(yellow, 0) #Off initially
 #LED Red
GPIO.setup(red, GPIO.OUT)
GPIO.output(red, 0) #Off initially
#LED green
GPIO.setup(green, GPIO.OUT)
GPIO.output(green, 0) #Off initially

def action(msg):
    chat_id = msg['chat']['id']
```

```
command = msg['text']

print ('Received: %s' % command)

if 'on' in command:
    message = "on"
    if 'blue' in command:
        message = message + "blue "
        GPIO.output(blue, 1)
    if 'yellow' in command:
        message = message + "yellow "
        GPIO.output(yellow, 1)
    if 'red' in command:
        message = message + "red "
        GPIO.output(red, 1)
    if 'green' in command:
        message = message + "green "
        GPIO.output(green, 1)
    if 'all' in command:
        message = message + "all "
        GPIO.output(blue, 1)
        GPIO.output(yellow, 1)
        GPIO.output(red, 1)
        GPIO.output(green, 1)
    message = message + "light(s)"
    telegram_bot.sendMessage (chat_id, message)

if 'off' in command:
    message = "off "
    if 'blue' in command:
        message = message + "blue "
        GPIO.output(blue, 0)
    if 'yellow' in command:
        message = message + "yellow "
        GPIO.output(yellow, 0)
    if 'red' in command:
        message = message + "red "
        GPIO.output(red, 0)
    if 'green' in command:
        message = message + "green "
        GPIO.output(green, 0)
    if 'all' in command:
        message = message + "all "
        GPIO.output(blue, 0)
        GPIO.output(yellow, 0)
        GPIO.output(red, 0)
        GPIO.output(green, 0)
    message = message + "light(s)"
    telegram_bot.sendMessage (chat_id, message)
```

```
telegram_bot = telepot.Bot('                Access Token Kev                ')
print (telegram_bot.getMe())

MessageLoop(telegram_bot, action).run_as_thread()
print ('Up and Running....')

while 1:
   time.sleep(10)
```

5. **Now ,run the example code as follows:**



Thank you….