ICE 8

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Document
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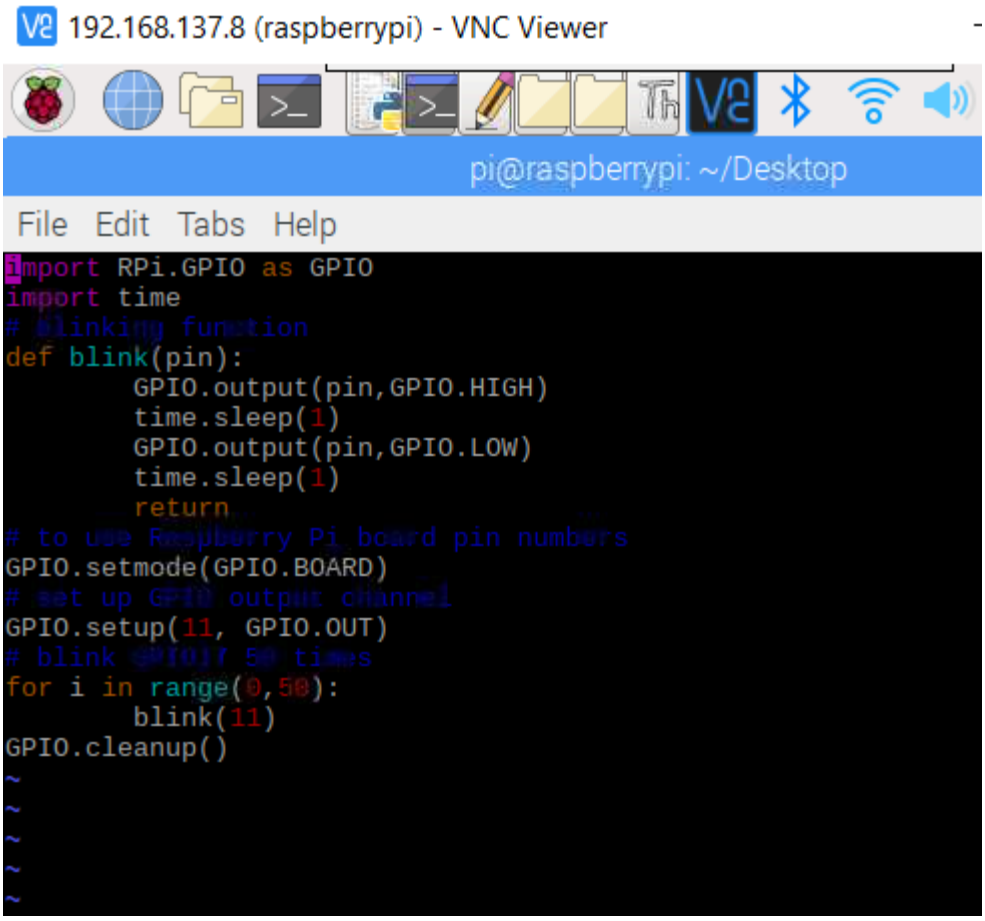
objective

in this icp we are setting raspberry pi and connecting raspberry pi with arduino and running the basic task.

1. Setup Raspberry Pi
2. Create circuit board with LED light and Raspberry Pi
3. Connect Raspberry Pi with Arduino and receive message from Arduino
4. Send tweet from Raspberry Pi

workflow

blinking led light using rasberry pi



arduino code to send message to raspberry pi via i2c.

sketch_mar15a

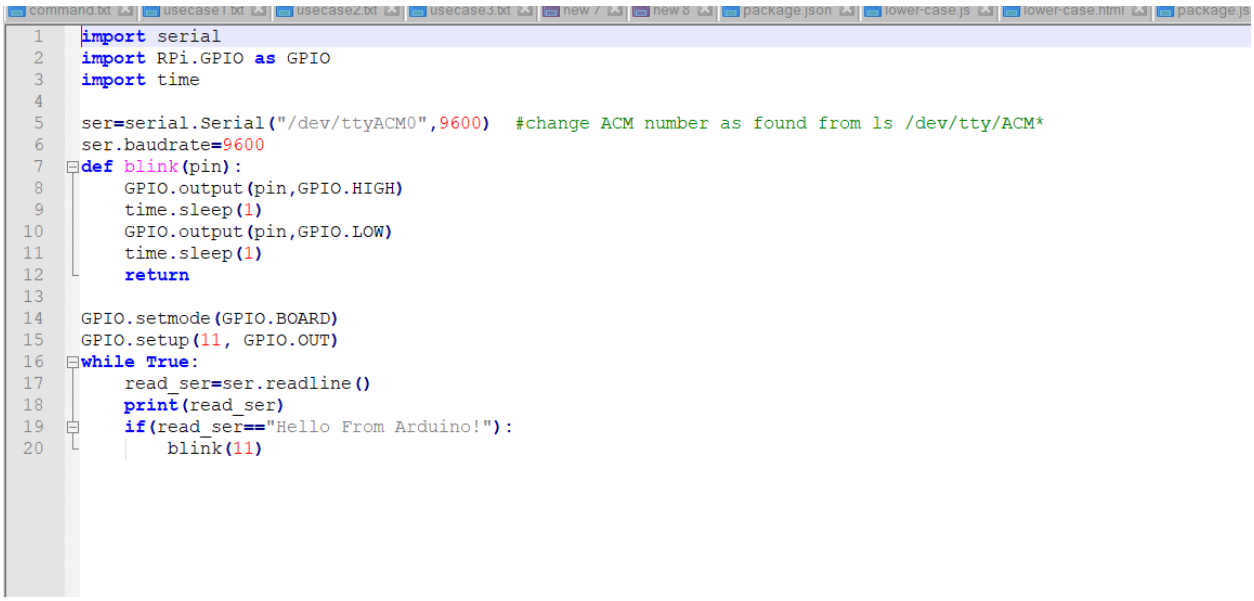
```
String data="Hello From Arduino!";

void setup() {
// put your setup code here, to run once:
Serial.begin(9600);

}

void loop() {
// put your main code here, to run repeatedly:
Serial.println(data);//data that is being Sent
delay(200);
}
```

raspberry pi code to recive message from arduino



```
import serial
import RPi.GPIO as GPIO
import time

ser=serial.Serial("/dev/ttyACM0",9600)  #change ACM number as found from ls /dev/tty/ACM*
ser.baudrate=9600
def blink(pin):
    GPIO.output(pin,GPIO.HIGH)
    time.sleep(1)
    GPIO.output(pin,GPIO.LOW)
    time.sleep(1)
    return

GPIO.setmode(GPIO.BOARD)
GPIO.setup(11, GPIO.OUT)
while True:
    read_ser=ser.readline()
    print(read_ser)
    if(read_ser=="Hello From Arduino!"):
        blink(11)
```

raspberry pi code to send tweet to twitter.

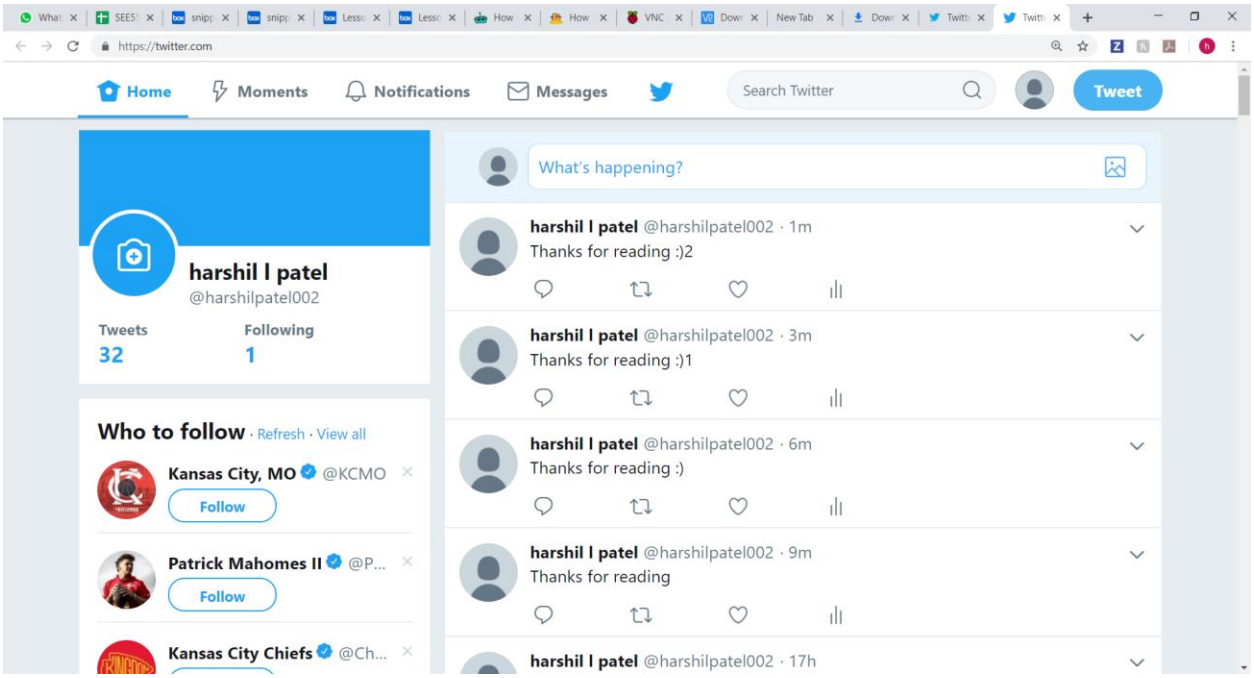
```python
from twython import Twython

# fill in your 4 keys in following variables
C_key = ""
C_secret = ""
A_token = ""
A_secret = ""

myTweet = Twython(C_key,C_secret,A_token,A_secret)
myTweet.update_status(status="Thanks for reading")

```

tweet output



conclusion

with the help of this assignment we where able to learn...

1. Setup Raspberry Pi
2. Create circuit board with LED light and Raspberry Pi
3. Connect Raspberry Pi with Arduino and receive message from Arduino
4. Send tweet from Raspberry Pi