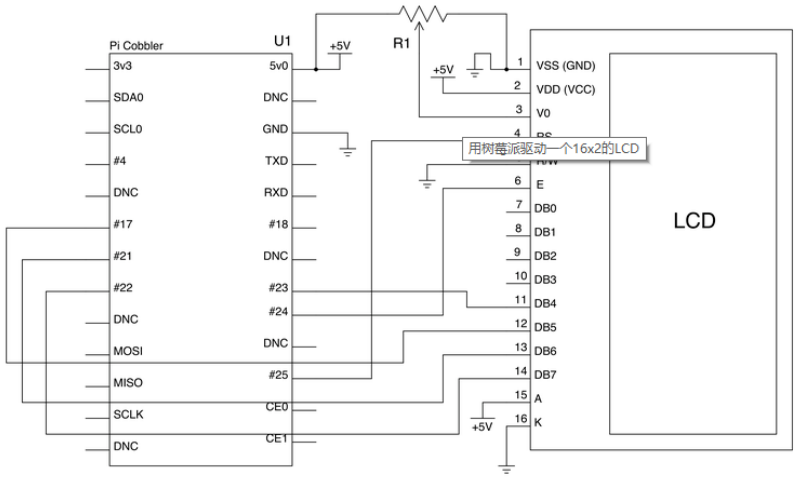
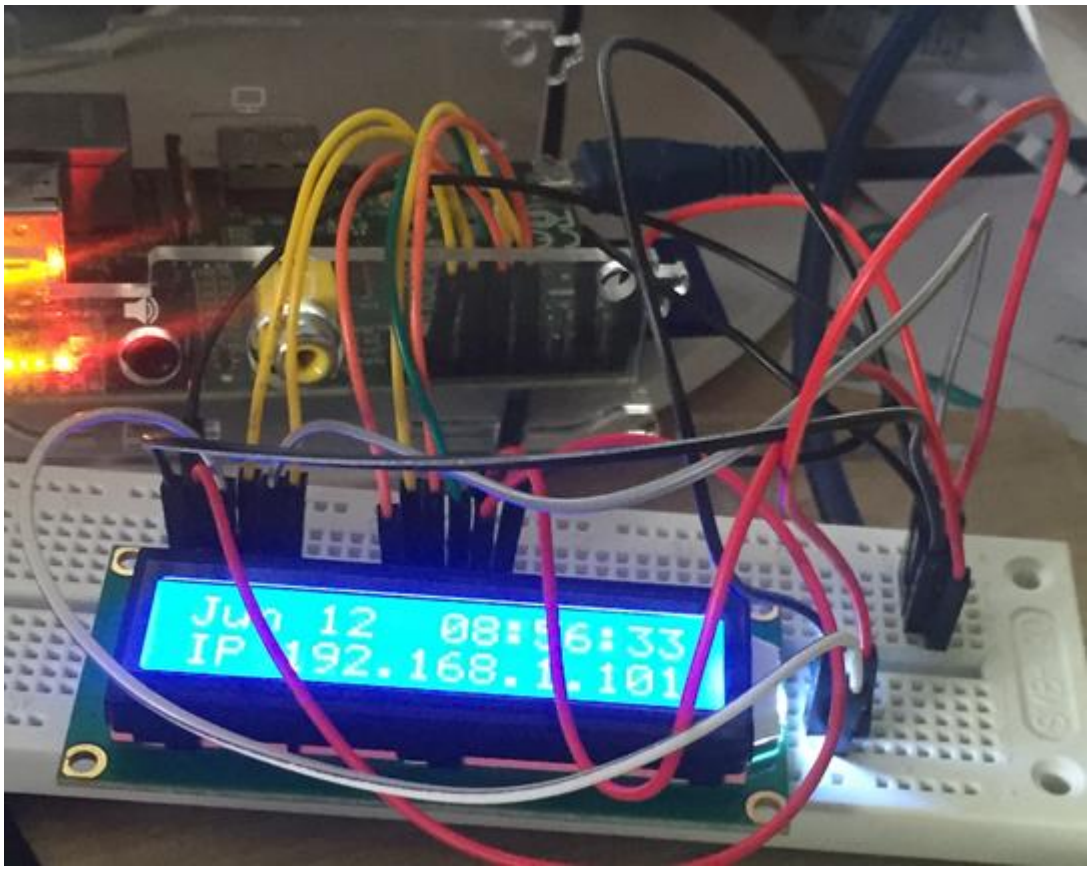
网络时钟：

连接树莓派和 LCD：

连线概念图：



实物连线：



从网上下载驱动 lcd 的 python 库

```
pi@raspberrypi ~/lcd $ git clone http://github.com/adafruit/Adafruit-Raspberry-P
i-Python-Code.git
```

安装 ntpdate （方式一）

```
pi@raspberrypi ~/lcd/Adafruit-Raspberry-Pi-Python-Code/Adafruit_CharLCD $ sudo apt-get update ntpdate
```

修改时区信息

```
pi@raspberrypi ~/lcd/Adafruit-Raspberry-Pi-Python-Code/Adafruit_CharLCD $ tzselect
Please identify a location so that time zone rules can be set correctly.
Please select a continent or ocean.
 1) Africa
 2) Americas
 3) Antarctica
 4) Arctic Ocean
 5) Asia
 6) Atlantic Ocean
 7) Australia
 8) Europe
```

加入定时任务，每天 00:00 对一次时间：

```
#
# m h  dom mon dow   command
0 0 * * * sudo ntpdate cn.pool.ntp.org
```

调用 Python 库写代码如下：

```
def run_cmd(cmd):
    p = Popen(cmd, shell=True, stdout=PIPE)
    output = p.communicate()[0]
    return output

ehour = timedelta(hours=8)
while 1:
    lcd.clear()
    ipaddr = run_cmd(cmd)
    lcd.message('The time is:\n')
    lcd.message(datetime.now().strftime('%b %d    %H:%M\n'))
    #print datetime.now()
    #lcd.message('IP %s' % (ipaddr))
    sleep(2)
```

或者实时从 ntp 服务器发送获得时间信息的请求（方式二）

```
client = ntplib.NTPClient()
date_t = timedelta(hours=8)
while 1:
    lcd.clear()
    ipaddr = run_cmd(cmd)
    response = client.request('cn.pool.ntp.org')
    lcd.message('The time is:\n')
    re = (datetime.fromtimestamp(response.tx_time)+date_t).strftime(' %b %d   %H:%M')
    lcd.message(re)
    #print datetime.now()
    #lcd.message('IP %s' % (ipaddr))
    sleep(100)
```

效果显示（方式一）

效果显示（方式二）