

# **WizFi360**

## **Firmware Update Guide**

**Version 1.2**

**WIZnet Co.,Ltd**

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# History

| Ver  | Date       | Description  |
|------|------------|--|
| 1.00 | 2019.07.29 | Initial version  |
| 1.10 | 2019.08.01 | Added explanation about firmware updates using the cloud |
| 1.20 | 2019.08.09 | Modified explanation about Upgrade tool                  |

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## 1. The method of firmware update

Wizfi360 firmware update는 Serial을 이용하는 방법과 AT command를 이용하여 Wi-Fi로 update하는 방법이 있다.

### 1.1 Tera Term 을 이용하는 방법 (Serial)

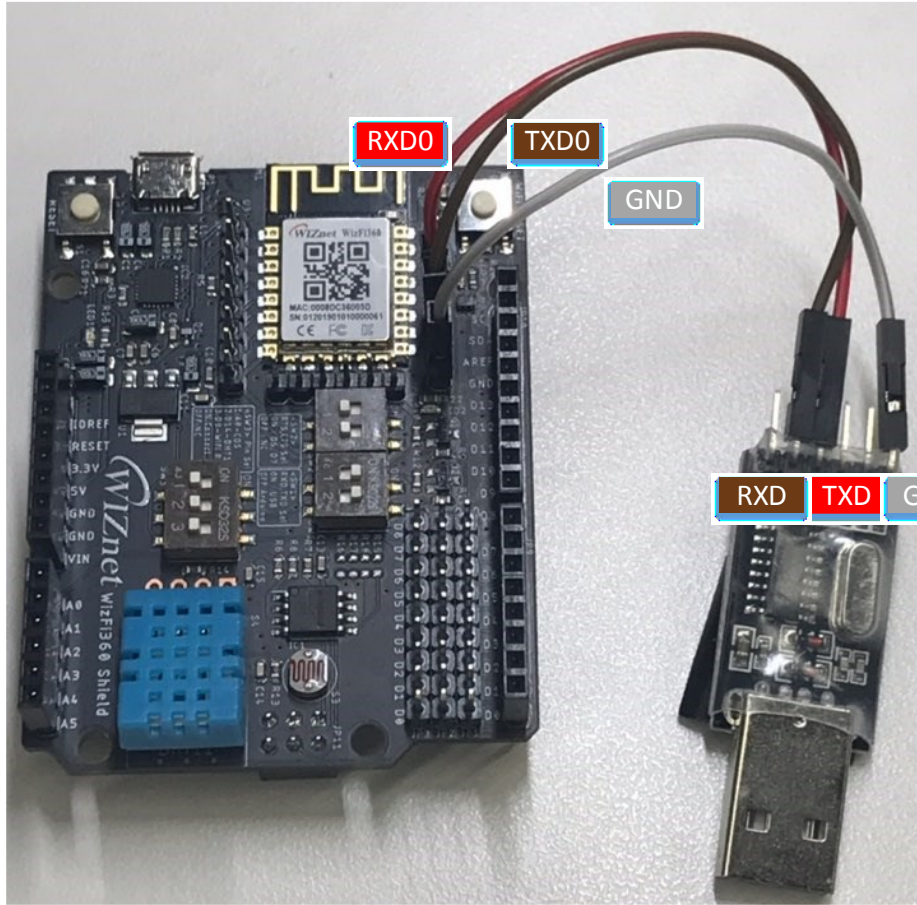
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#### 1.1.1 Required hardware and software

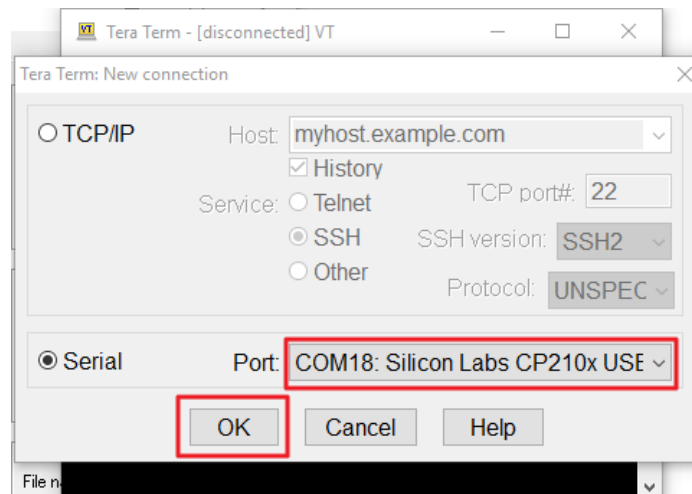
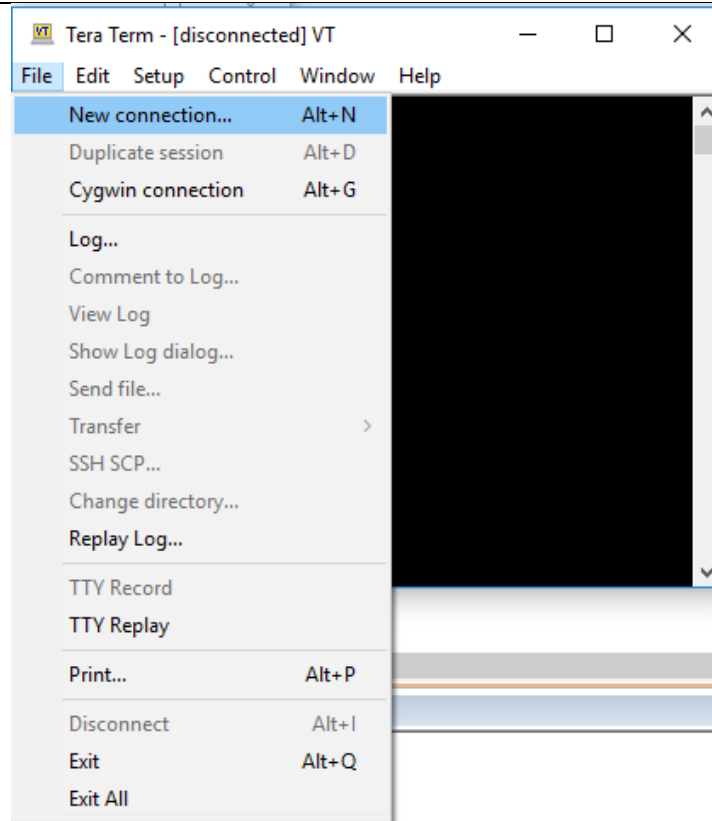
- WizFi360-EVB
- Tera Term
- TTL to USB module
- WizFi360 Firmware: WizFi360\_SDK.img
  - <https://github.com/WIZnet-WizFi360/Release/tree/master/Binary>

#### 1.1.2 How to download the firmware using the Serial

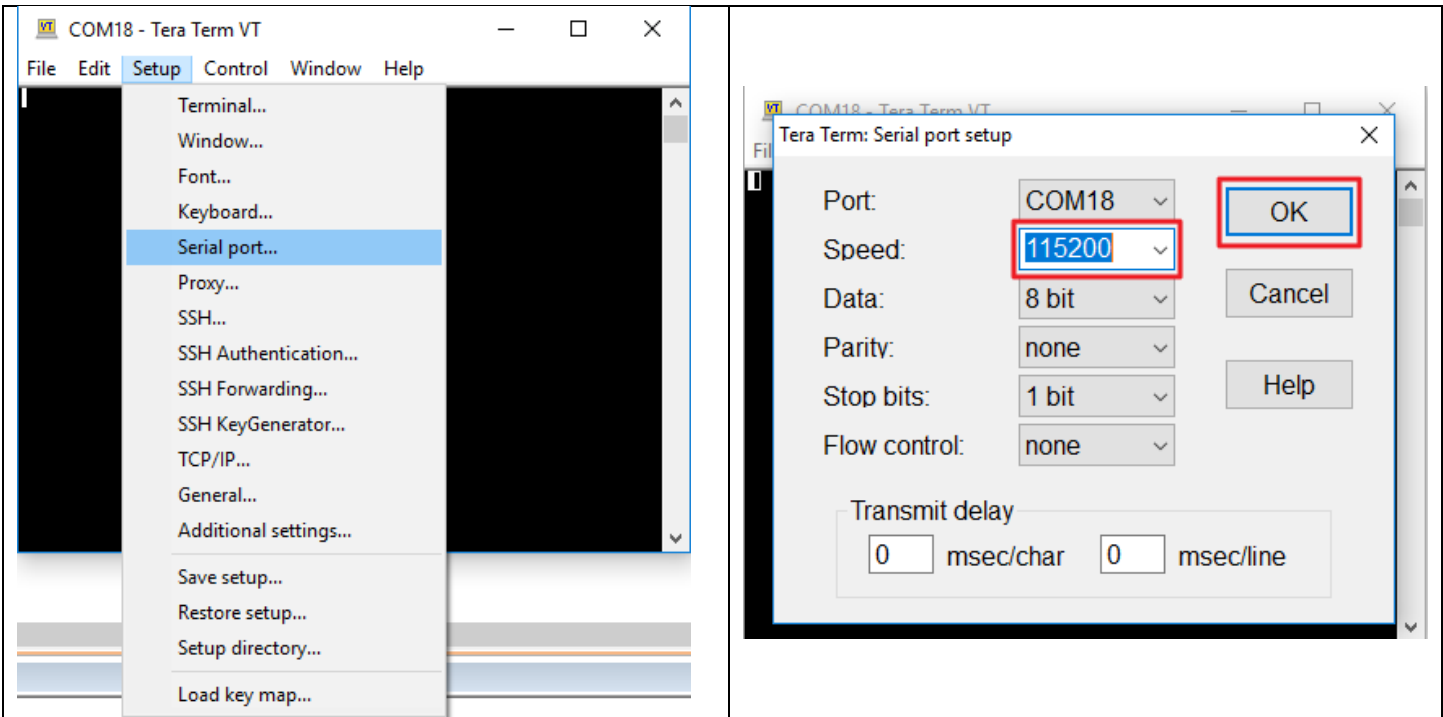
1. WizFi360의 펌웨어를 업데이트 하기 위해서 UART0를 사용하며, TTL to USB module을 이용해 다음과 같이 연결한다.



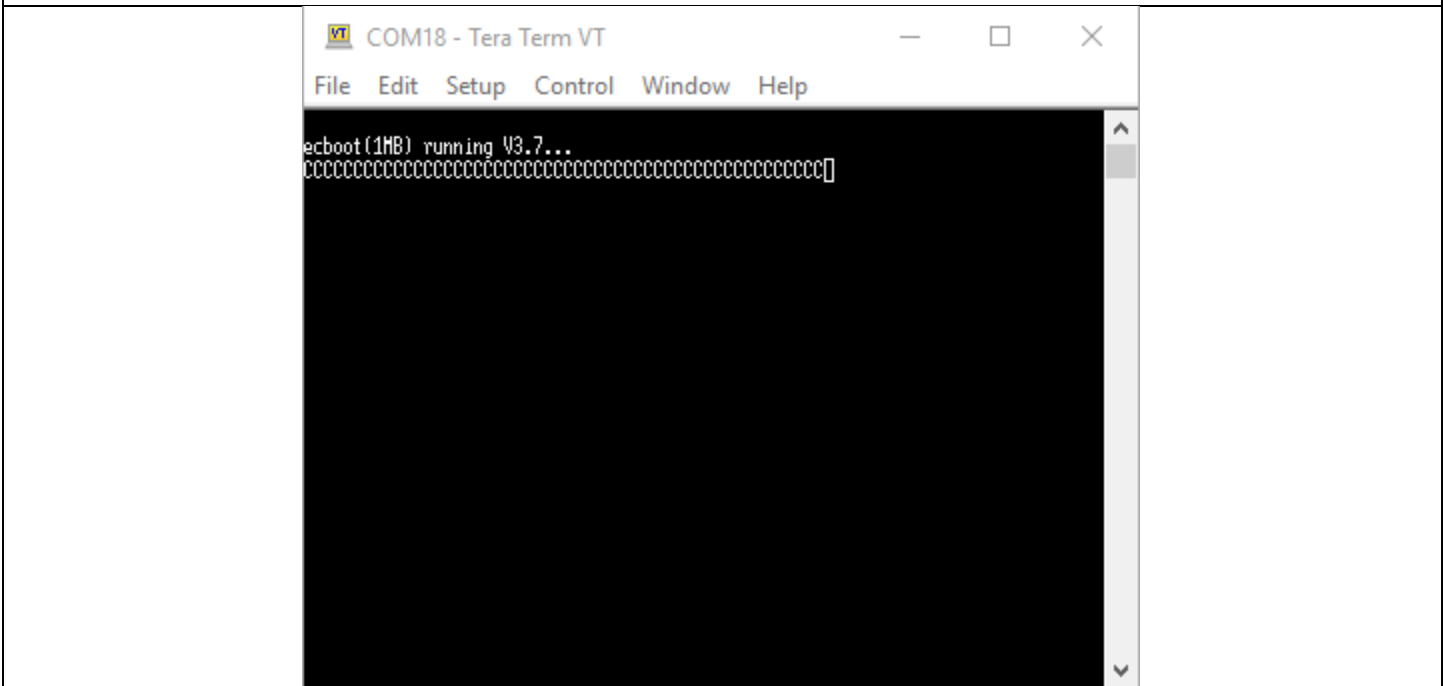
2. Tera Term을 실행하고 'File - New connection' 메뉴로 진입하여 Serial을 선택하고, WizFi360이 연결된 시리얼 포트를 선택한다.



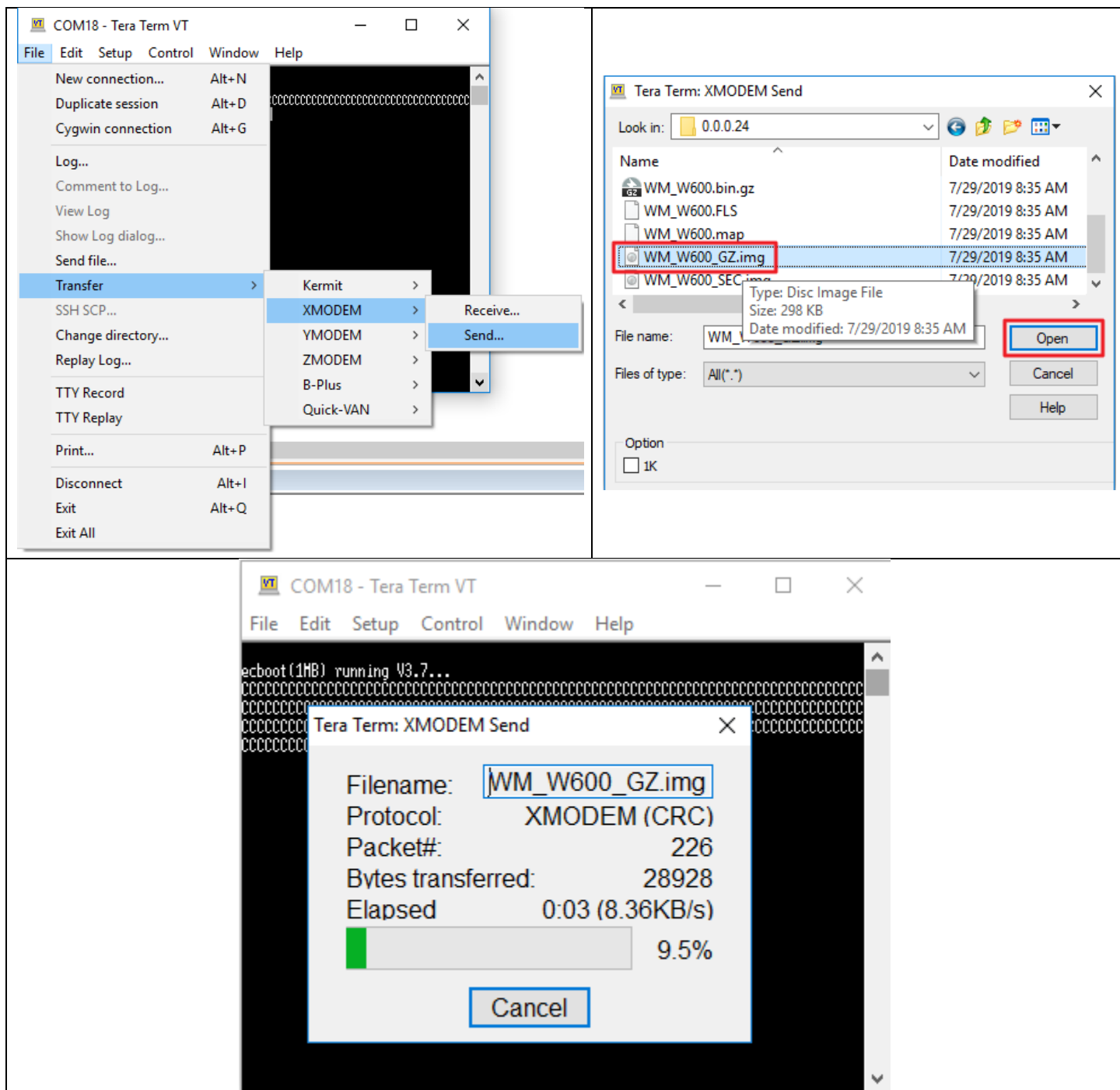
3. 'Setup - Serial port' 메뉴로 들어가서 Serial port의 통신 속도를 115200kbps로 설정해 준다.



4. 키보드의 ESC key를 누른 상태에서 WizFi360의 reset 버튼을 눌러 Boot 모드로 진입한다. Boot 모드로 진입 되면 아래와 같은 화면이 출력된다.

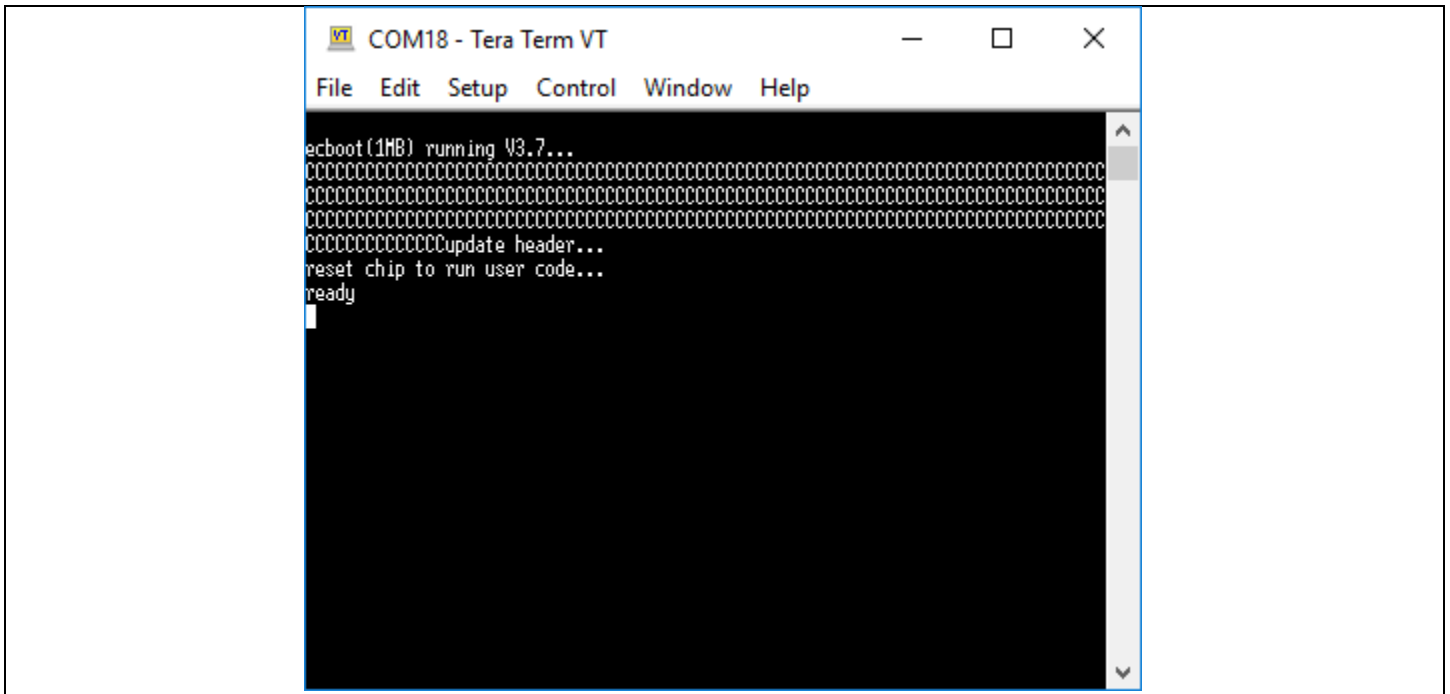


5. 'File - Transfer - XMODEM - Send' 메뉴로 진입해서 업데이트 할 binary 파일을 선택 후 확인을 눌러 업데이트를 진행한다.



6. Firmware 업데이트가 완료되면 터미널에 'ready'가 출력된다.

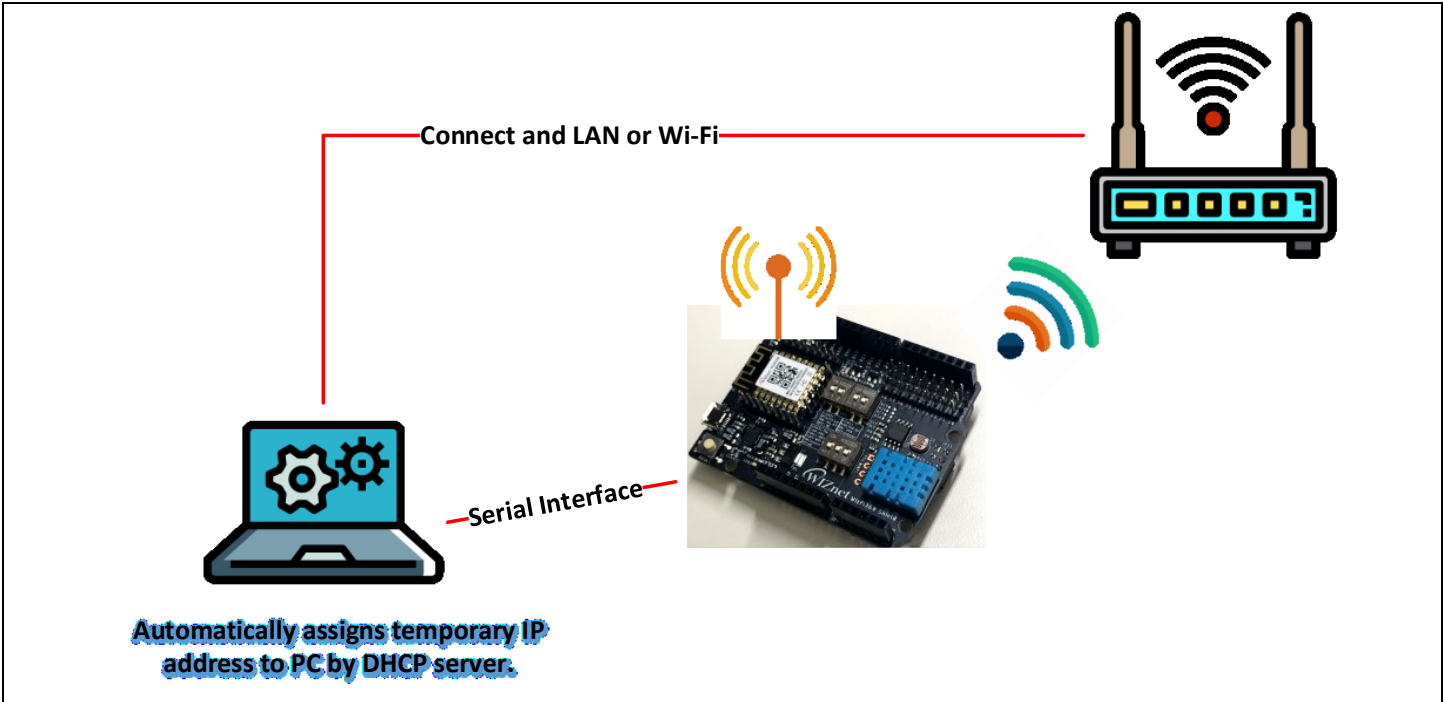




## 1.2 Cloud 를 이용하는 방법

### 1.2.1 How to download the firmware using the Cloud (Wi-Fi)

1. PC와 WizFi360, Router를 다음 그림과 같이 연결한다. Router는 인터넷에 연결된 상태여야 하며, DHCP Server에 있는 Router에 접속하여 WizFi360과 PC가 IP를 할당 받는다. WizFi360과 TTL to USB는 사진과 같이 연결한다.



```

AT
AT

OK
AT+CWLAP
AT+CWLAP
+CWLAP: (3,"##WIZnet_irina",-55,"64:e5:99:b8:60:5a",1)
+CWLAP: (4,"DIR-815_Wiznet",-65,"14:d6:4d:cf:fa:a7",1)
+CWLAP: (3,"Matthew2.4",-57,"88:36:6c:be:8a:3a",2)
+CWLAP: (3,"rena",-57,"88:36:6c:6e:ac:28",3)
+CWLAP: (0,"iptime",-59,"88:36:6c:7d:79:44",4)
+CWLAP: (3,"Taylor",-55,"00:08:9f:50:1a:36",6)
+CWLAP: (3,"Dap",-63,"88:36:6c:e8:32:9e",8)
+CWLAP: (4,"DLINK-IPv6",-51,"cc:b2:55:d2:19:a2",10)
+CWLAP: (3,"WIZnet_Scott",-57,"18:a6:f7:56:73:2e",11)
+CWLAP: (3,"wizms1",-59,"e8:fc:af:fd:a2:85",11)
+CWLAP: (0,"iptime",-65,"64:e5:99:a4:e3:6c",11)
+CWLAP: (3,"Teddy_AP",-51,"90:9f:33:21:e5:00",13)

OK
AT+CWJAP_CUR="Teddy_AP","12345678"
AT+CWJAP_CUR="Teddy_AP","12345678"
WIFI CONNECTED
WIFI GOT IP

OK
                    
```

2. AT command를 사용해 firmware upgrade를 진행한다.

```
(10:09:15.104) ready<CR><LF>
(10:09:21.898) AT+CWMODE_CUR=1<CR><LF>
(10:09:22.039) AT+CWMODE_CUR=1<CR><LF>
(10:09:22.039) <CR><LF>
(10:09:22.039) OK<CR><LF>
(10:09:22.932) AT+CWLAP<CR><LF>
(10:09:23.081) AT+CWLAP<CR><LF>
(10:09:24.769) +CWLAP:(3,"##WIZnet_irina",-53,"64:e5:99:b8:60:5a",1,1)<CR><LF>
(10:09:24.854) +CWLAP:(4,"DIR-815_Wiznet",-59,"14:d6:4d:cf:fa:a7",1,1)<CR><LF>
(10:09:24.854) +CWLAP:(3,"Matthew2.4",-61,"88:36:6c:be:8a:3a",2,1)<CR><LF>
(10:09:24.854) +CWLAP:(0,"iptime",-69,"88:36:6c:7d:79:44",4,1)<CR><LF>
(10:09:24.854) +CWLAP:(3,"Dap",-57,"88:36:6c:e8:32:9e",3,1)<CR><LF>
(10:09:24.854) +CWLAP:(4,"Teddy_AP",-38,"90:9f:33:21:e5:00",5,1)<CR><LF>
(10:09:24.854) +CWLAP:(0,"WizFi630S_AP_57985E",-57,"00:08:dc:57:98:5e",6,0)<CR><LF>
(10:09:24.854) +CWLAP:(4,"DLINK-IPv6",-51,"cc:b2:55:d2:19:a2",7,1)<CR><LF>
(10:09:24.854) +CWLAP:(3,"WIZnet_Scott",-44,"18:a6:f7:56:73:2e",6,1)<CR><LF>
(10:09:24.854) +CWLAP:(3,"rena",-53,"88:36:6c:6e:ac:28",9,1)<CR><LF>
(10:09:24.854) +CWLAP:(3,"wizms1",-61,"e8:fc:af:fd:a2:85",11,1)<CR><LF>
(10:09:24.854) +CWLAP:(0,"iptime",-71,"64:e5:99:a4:e3:6c",11,1)<CR><LF>
(10:09:24.854) +CWLAP:(0,"ESP_577CC7",-85,"2e:f4:32:57:7c:c7",11,0)<CR><LF>
(10:09:24.854) <CR><LF>
(10:09:24.854) OK<CR><LF>
(10:09:25.523) AT+CWJAP_CUR="Teddy_AP","12345678"<CR><LF>
(10:09:25.669) AT+CWJAP_CUR="Teddy_AP","12345678"<CR><LF>
(10:09:29.122) WIFI CONNECTED<CR><LF>
(10:09:29.122) WIFI GOT IP<CR><LF>
(10:09:29.122) <CR><LF>
(10:09:29.122) OK<CR><LF>
(10:09:38.905) AT+CIUPDATE<CR><LF>
(10:09:39.052) AT+CIUPDATE<CR><LF>
(10:09:39.161) +CIPUPDATE:1<CR><LF>
(10:09:39.781) +CIPUPDATE:2<CR><LF>
(10:09:39.781) +CIPUPDATE:3<CR><LF>
(10:09:54.538) +CIPUPDATE:4<CR><LF>
(10:09:54.645) <CR><LF>
(10:09:54.645) OK<CR><LF>
(10:10:01.939) <CR><LF>
(10:10:01.939) ready<CR><LF>
```

## 1.3 Upgrade tool 을 이용하는 방법 (Serial/WiFi)

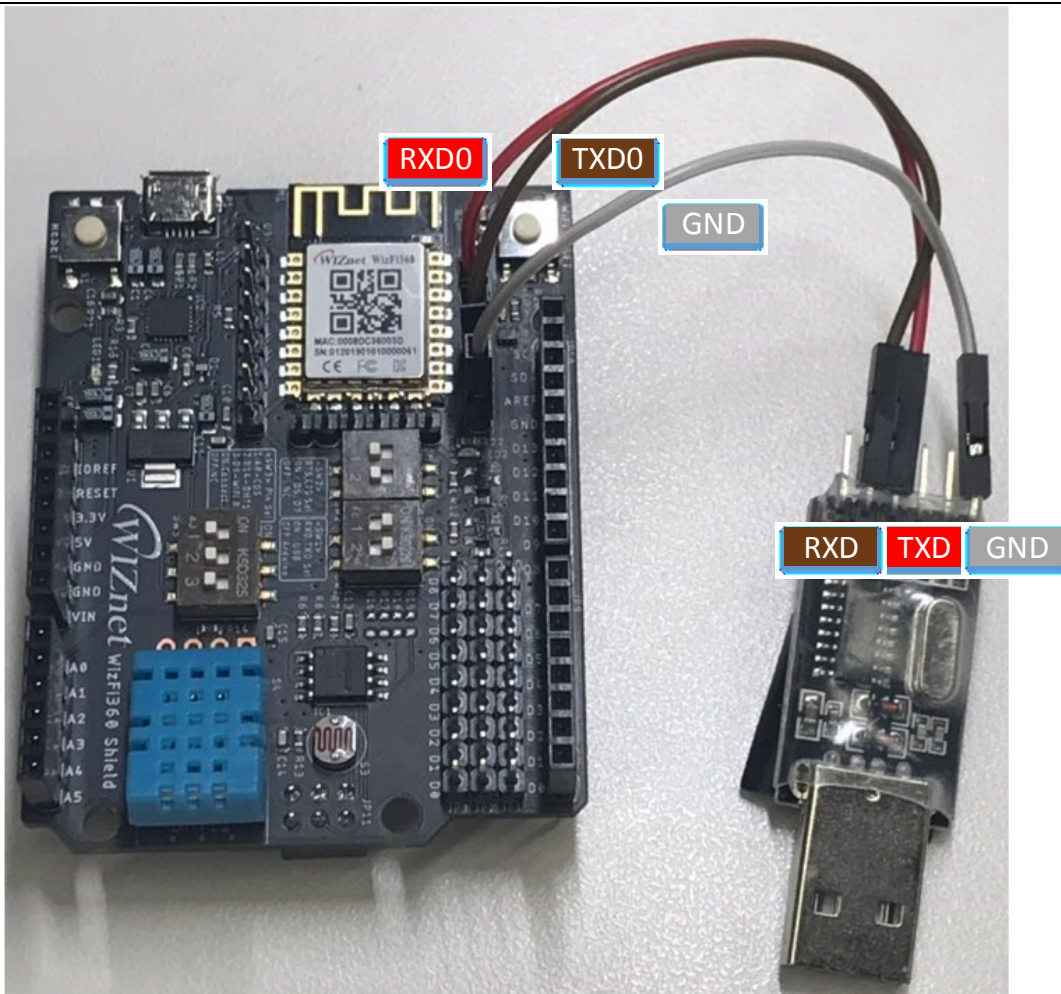
### 1.3.1 Required hardware and software

- WizFi360-EVB
- WizFi360 Upgrade Tool
- TTL to USB module
- WizFi360 Firmware: WizFi360\_SDK.img

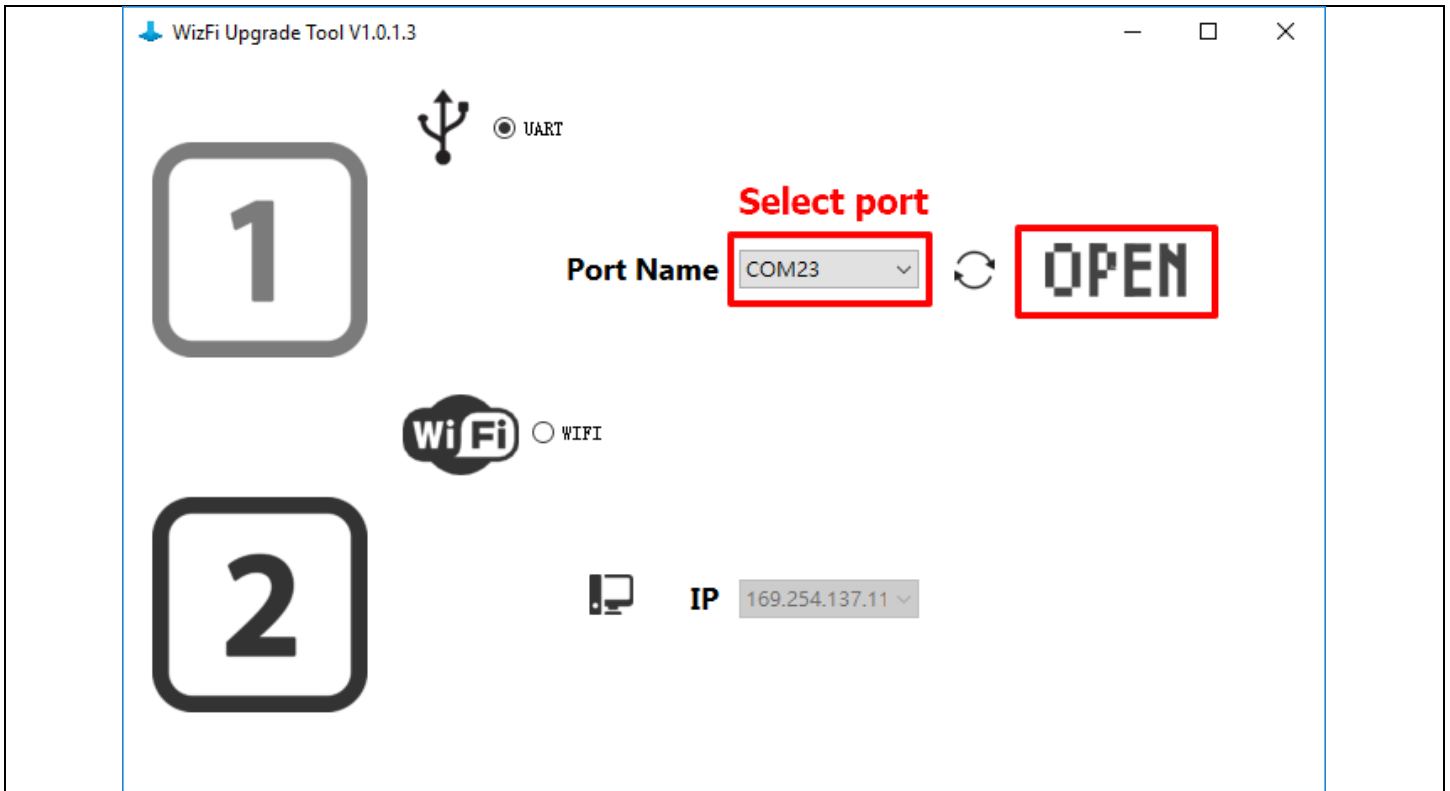
### 1.3.2 How to download the firmware using the Upgrade Tool(Serial)

1. WizFi360의 UART0를 사용하여 Firmware upload를 하고, WizFi360과 TTL to USB의 연결은 다음과 같이

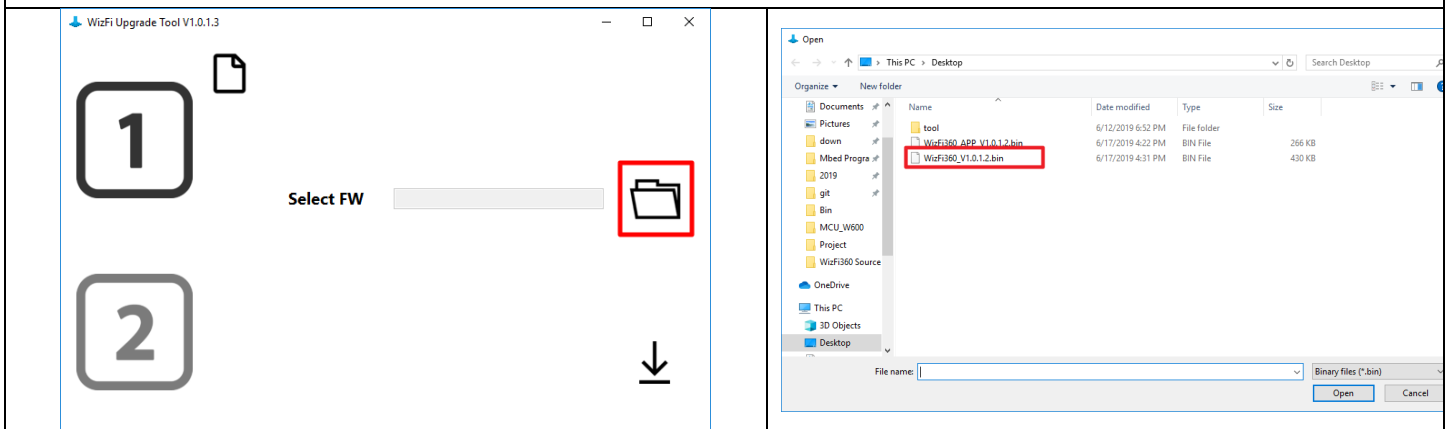
한다.



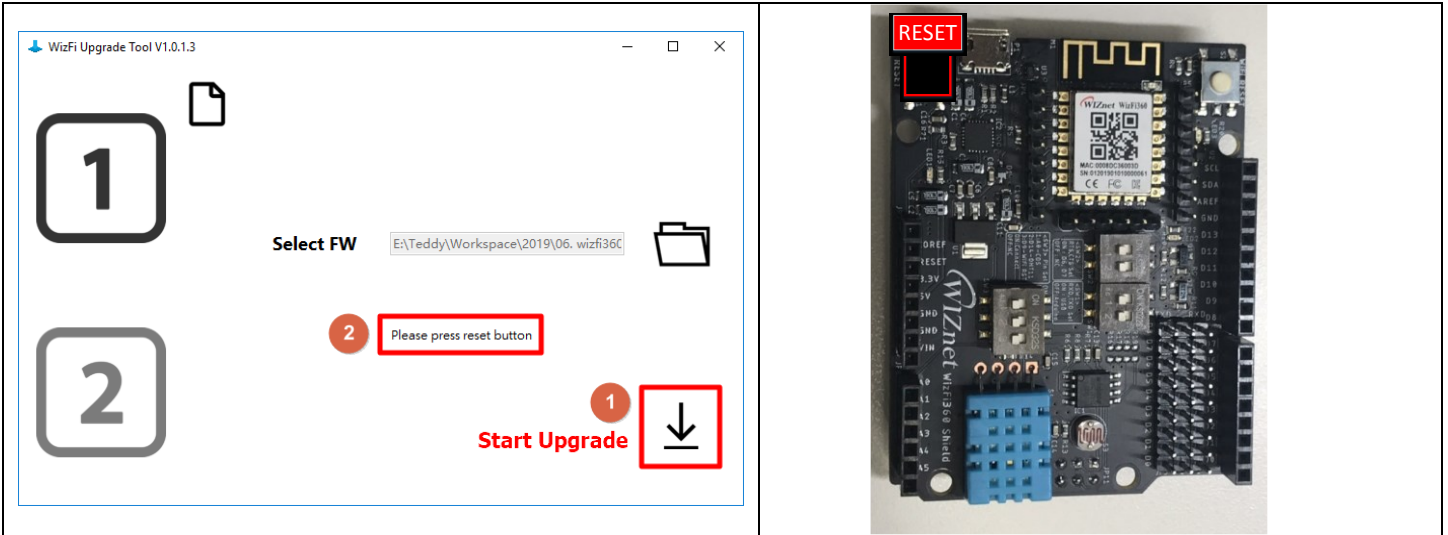
2. WizFi Upgrade Tool를 실행하고, WizFi360 Uart Port를 선택한 뒤 오픈한다.



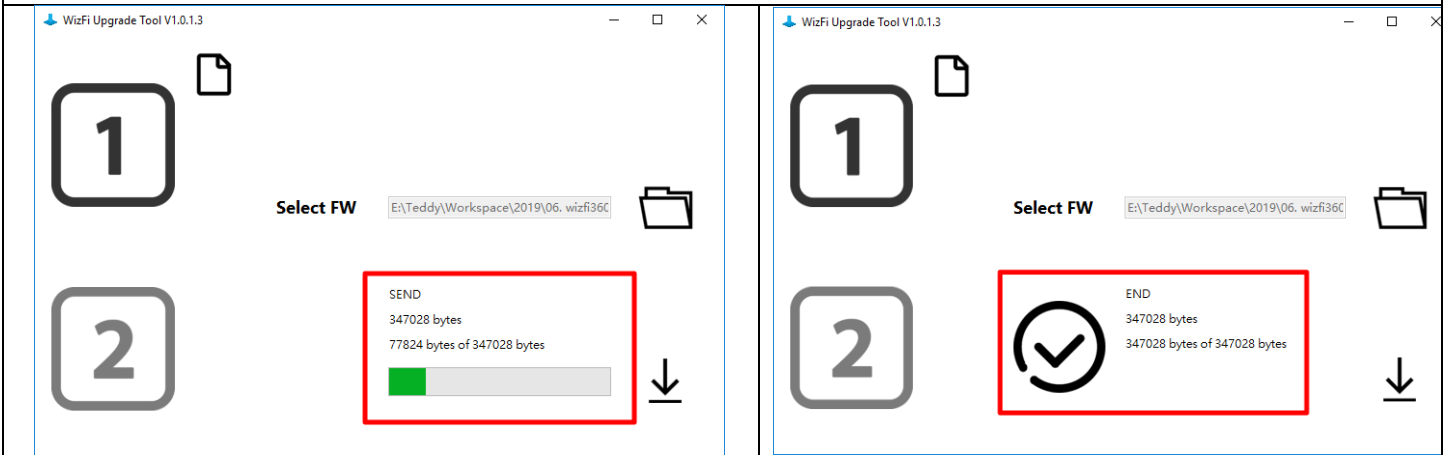
3. Select FW에서 폴더 모양의 아이콘을 클릭해 WizFi360 Firmware binary 파일을 선택한다.  
(WizFi360\_SDK.bin)



4. Start Upgrade 버튼(화살표 아이콘)을 클릭한 다음 'Please Press reset button message'를 확인한다.



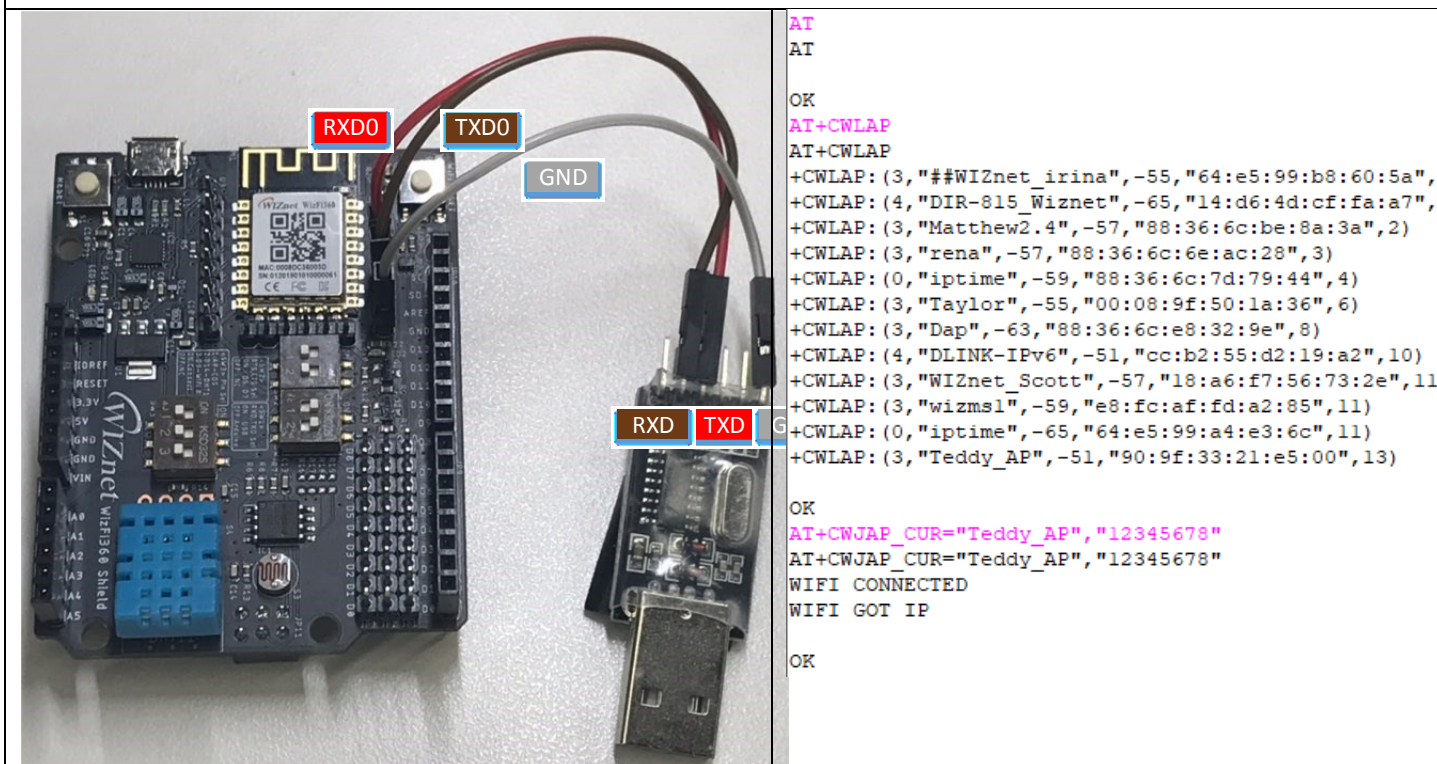
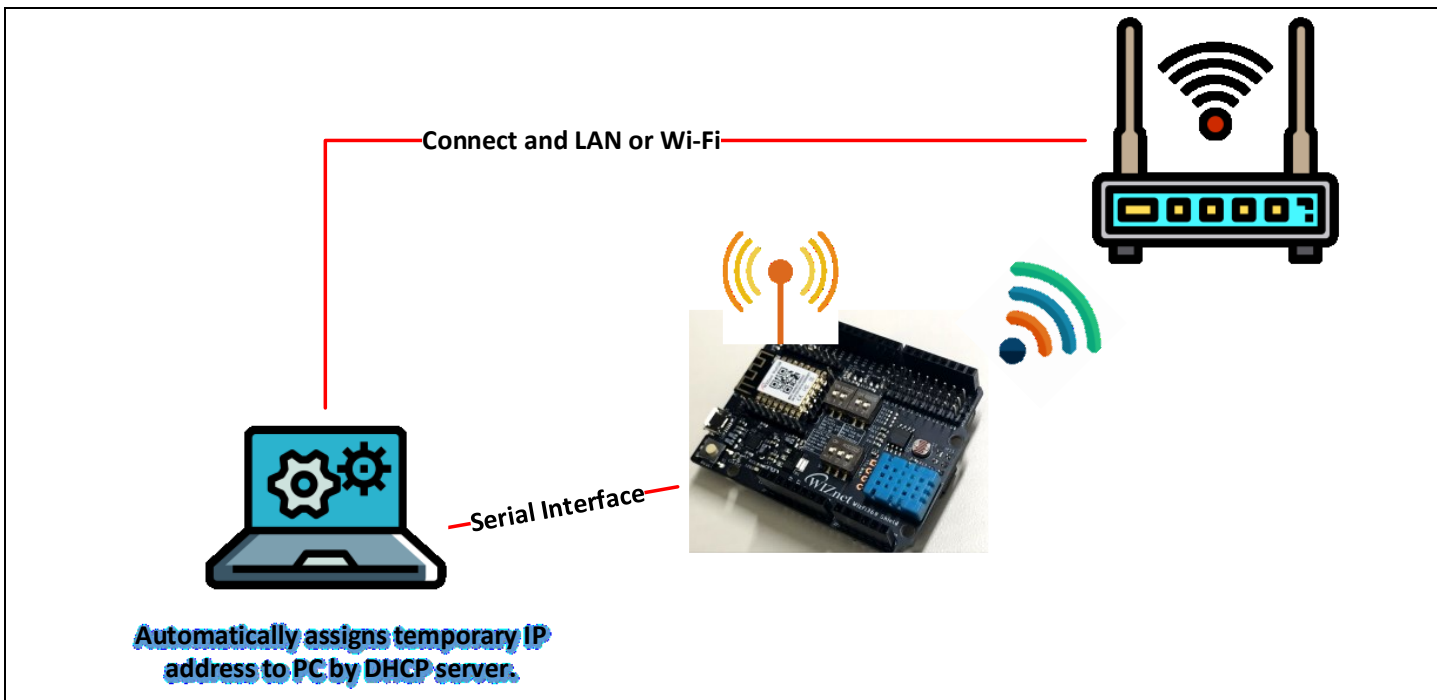
5. WizFi360의 Firmware upload가 진행되며, 완료 시 upload 된 firmware size가 나타난다.



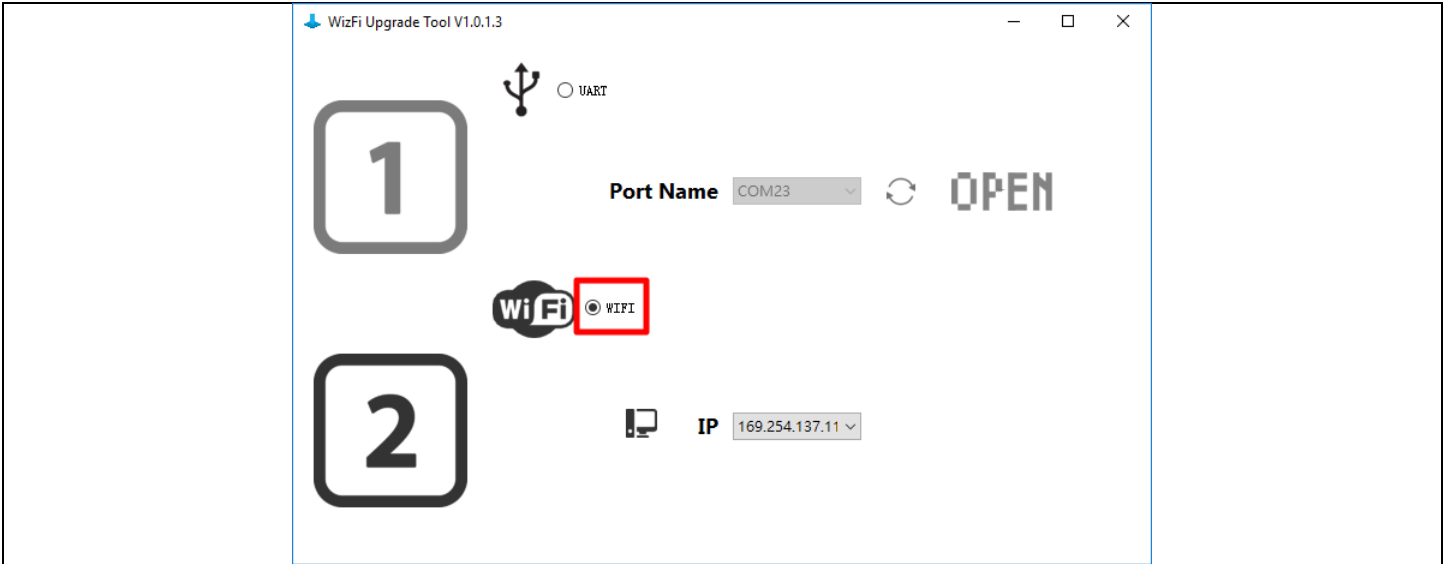
### 1.3.3 How to download the firmware using the Upgrade Tool(Wi-Fi)

1. WizFi360의 UART0를 사용하여 Firmware upload를 하고, WizFi360과 TTL to USB의 연결은 다음과 같이 한다. 또한 DHCP Server에 있는 Router에 접속하여 WizFi360과 PC가 IP를 할당받는다.

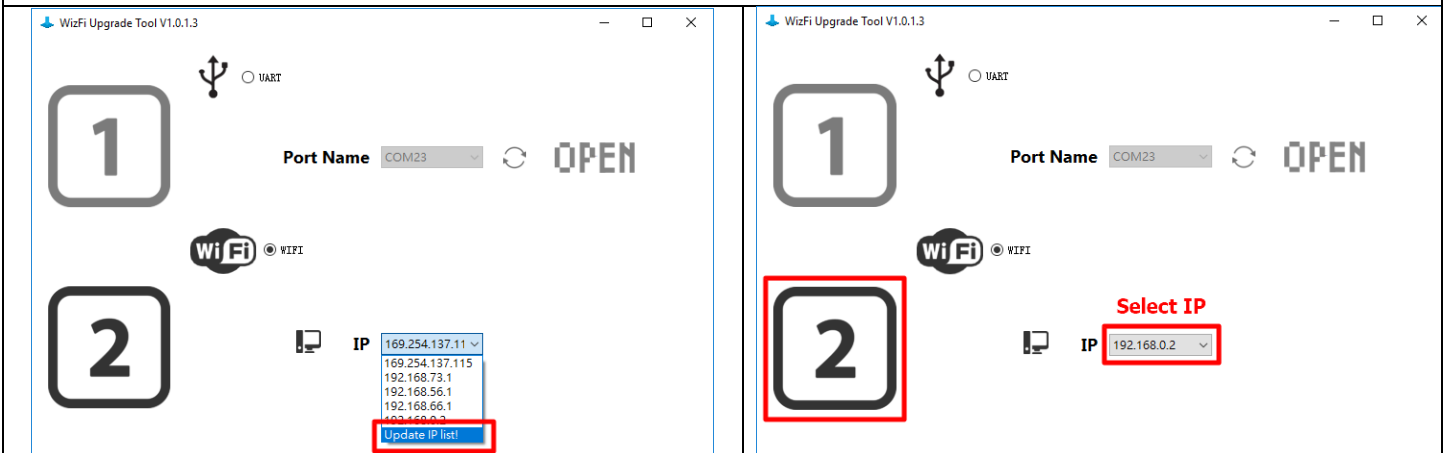




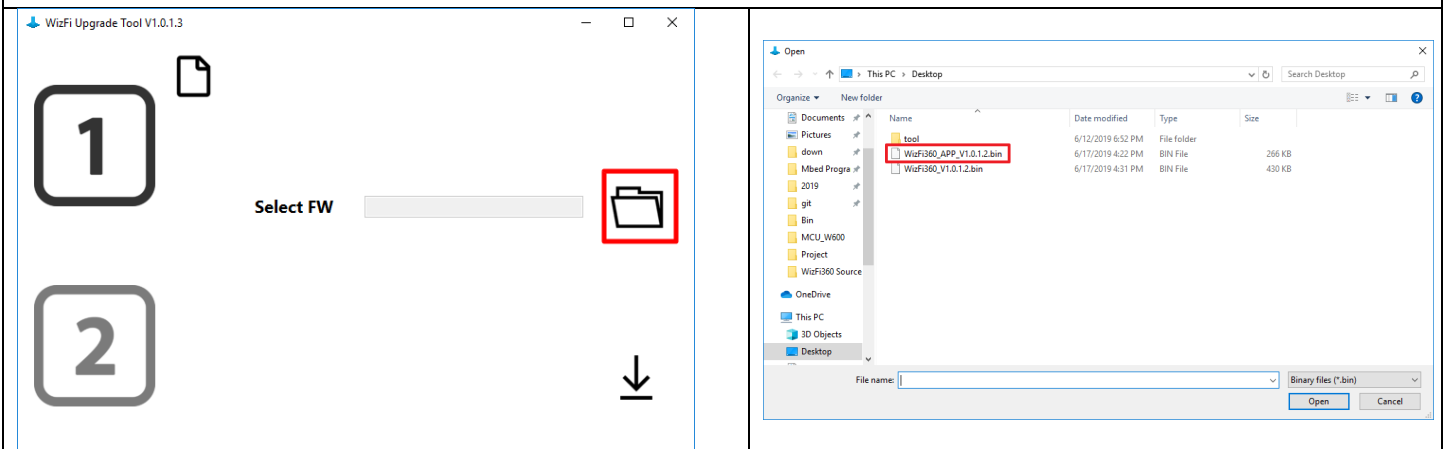
2. Upgrade Tool의 WiFi 옵션을 클릭한다.



3. Update IP list를 Click해서 PC의 IP를 선택한다.

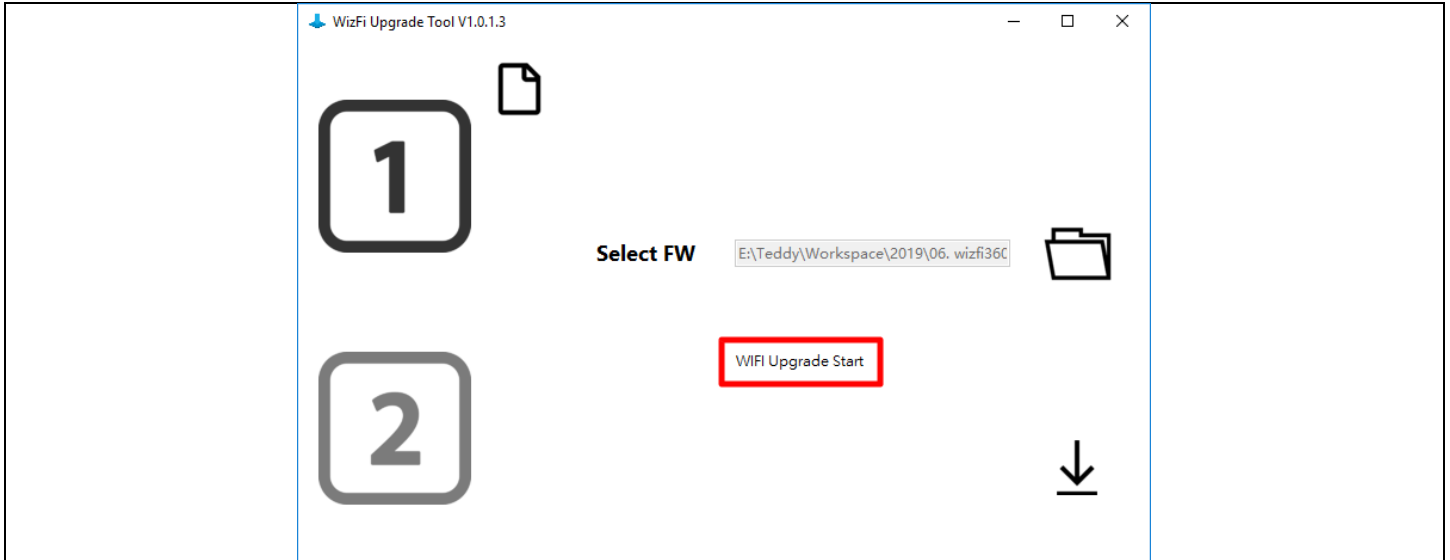


4. Select FW에서 폴더 모양의 아이콘을 클릭해 WizFi360 Firmware binary 파일을 선택한다.  
(WizFi360\_SDK.bin)



5. WizFi360의 Firmware Upgrade 준비 완료되면 아래와 같이 메시지가 출력된다.





6. AT command를 이용하여 firmware upgrade를 진행한다.

