IOT Relay User Manual

V1.8

1 Product Overview....3
1.1 Overview....3
1.2 Technical Parameters....3
2 Image and Size....5
3 Interface Description....6
3.1 LED....6
3.2 Relay Contact....6
3.3 Reset To Factory....7
3.4 External input/Button control....8
4 web....9
4.1 Login....9
4.2 Setting Network and WIFI....11
4.3 Setting Relay Connect....12
4.4 Relay CGI Test....16
4.5 Reset Password....17
4.6 To Factory....18
4.7 Reboot....19
4.8 WIFI web Page....20
4.8.1 Set wifi TCP as HTTP protocol....20
4.8.2 check wifi get DHCP IP....21
4.8.3 use firefox browser wifi web page....22
5 PC app....22
5.1 Search Device....24
5.2 Test Relay....26
5.3 Config Device....27
Appendix I How to Test Command....27
step 1: download SDK....27
step 2: Change NetAssist language....29
step 3: Control relay via NetAssist network tool by wifi module....29
step 4: open UDP listen....31
step 5: control relay via wifi module....32
Appendix II How to use Domoticz....33
step 1: install Dingtian plugin to Domoticz....33
1 Stop Domoticz....33
2 Copy Domoticz_plugins\dingtian to Domoticz plugin dir....34
step 2: config Dingtian Relay board....35
1 config relay board UDP Server,Keep Alive Second and Relay Password....35
step 3: Add Dingtian Relay to Domoticz....37

1 Install Python 3.8.2 37
2 Start Domoticz 37
3 Add Dingtian Relay to Domoticz 38
4 Control Dingtian Relay with Domoticz 42
Appendix III How to MQTT 44
step 1: Install and config Broker 45
step 2: Install MQTT PC client 46
step 3: MQTTBox Add Client 46
step 4: MQTTBox Publish topic to relay board and subcribe topic 48
Appendix IV How to CoAP 48
step 1: compile libcoap 49
step 2: CoAP Get relay status 49
step 3: CoAP Control relay(simple) 49
step 3: CoAP Control relay 49

1 Product Overview

1.1 Overview

Support multiple channel relay, On/OFF/Jogging/Delay.
Support multiple interface RJ45/RS485/CAN/WIFI
Support HTTP GET CGI/UDP/TCP Server/TCP Client
10/100Mbps ethernet, Auto-MDIX,DHCP ip,Static IP
Local Button control(SelfLock/Jogging/Delay)
PC config and control
WEB config and control
Support password.
Support Modbus-RTU/ASCII/TCP/UDP
Support Modbus-RTU Over TCP/UDP
Support Modbus-ASCII Over TCP/UDP
Support MQTT(Only Ethernet)
Support CoAP

Home Automation System Support:

Name	How to
Domoticz	Appendix II How to use Domoticz https://github.com/dtlzp/Domoticz-Dingtian-Relay-Plugin

SDK download address:
ftp://ftp.dingtian-tech.com/relay_sdk.zip

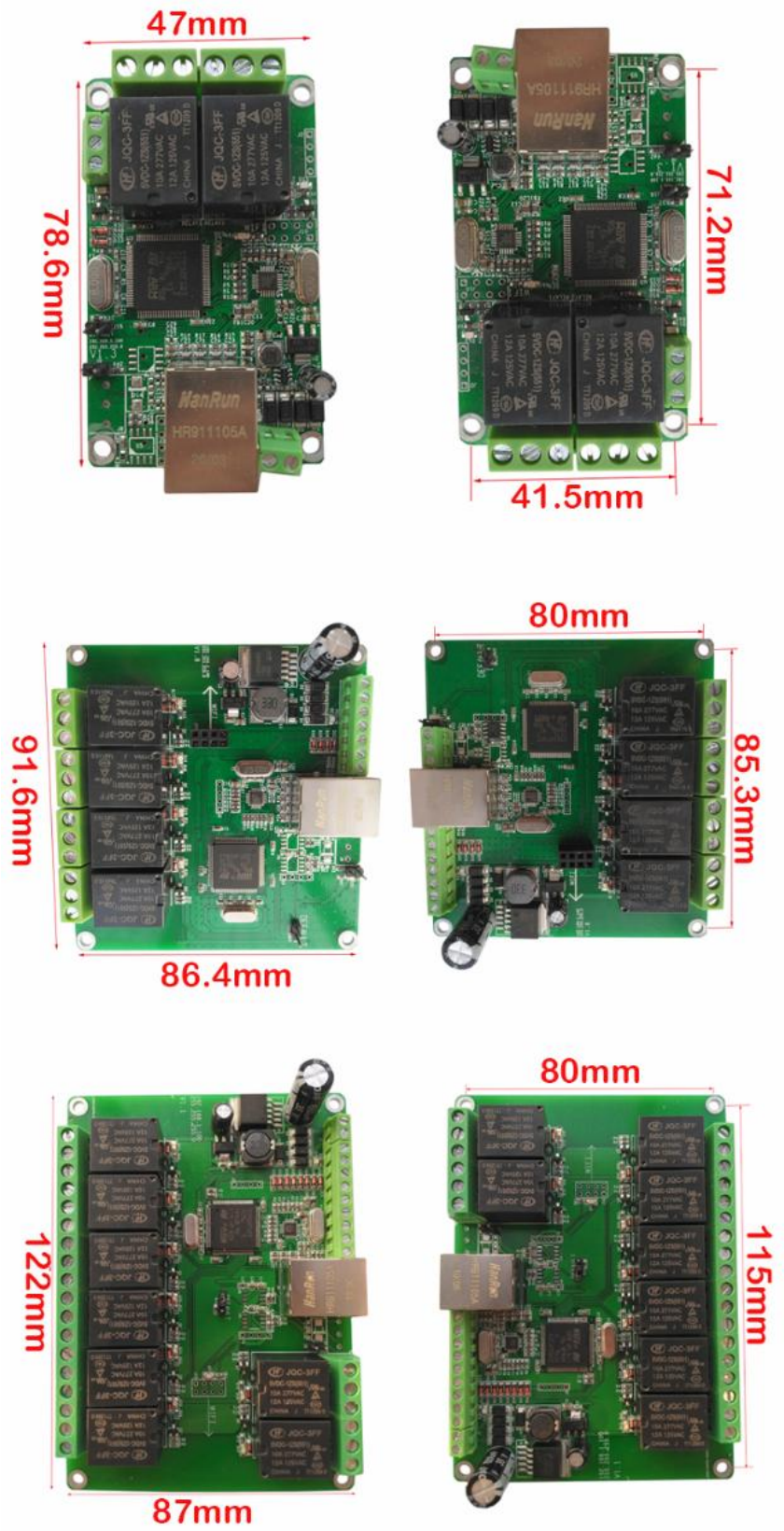
1.2 Technical Parameters

Network	Interface	RJ45/ RS485/CAN/WIFI
	Baudrate	100M/115200bps/125kbps/150Mbps
	Protocol	TCP server/client, UDP HTTP GET CGI, Modbus-RTU/ASCII/TCP/UDP Modbus-RTU Over TCP/UDP Modbus-ASCII Over TCP/UDP MQTT(only Ethernet) CoAP
Output	Relay Power	AC 250V/10A,DC 30V/10A
	Contacts	Normally Close Normally Open

	Delay	1~65535 seconds
	Momentary	Pull in 0.5 seconds, automatically release
Working environment	Operating temperature	0~+85°C
Power	Power Specifications	12V DC
	Current	500mA@12V DC At least 1A/12V adapter fill Voltage and current(Please satisfy)
	Power consumption	5W

2 Image and Size

Hole size: 3.5mm



3 Interface Description

3.1 LED

wifi led	on: Connect WiFi success off: Not Connect Wifi
CH1-CH8 led	on: relay on off: relay off

3.2 Relay Contact

Each set of relay outputs has three terminals: normally open contact, common terminal and normally closed contact. The contact capacity is AC 250V10A, DC 30V10A, and the output of controlling higher power requires external contactor.

• Normally open contact:

When the relay is released (or the module is powered off), the common terminal is disconnected from the normally open contact. After the suction is closed, the two contacts are closed.

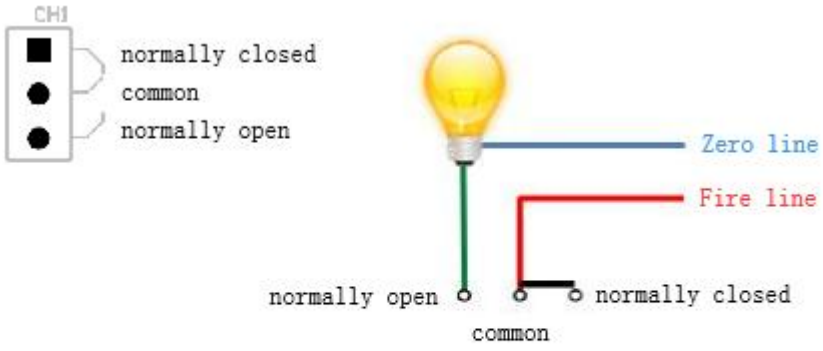
• Common:

Controlled power input

• Normally closed contact:

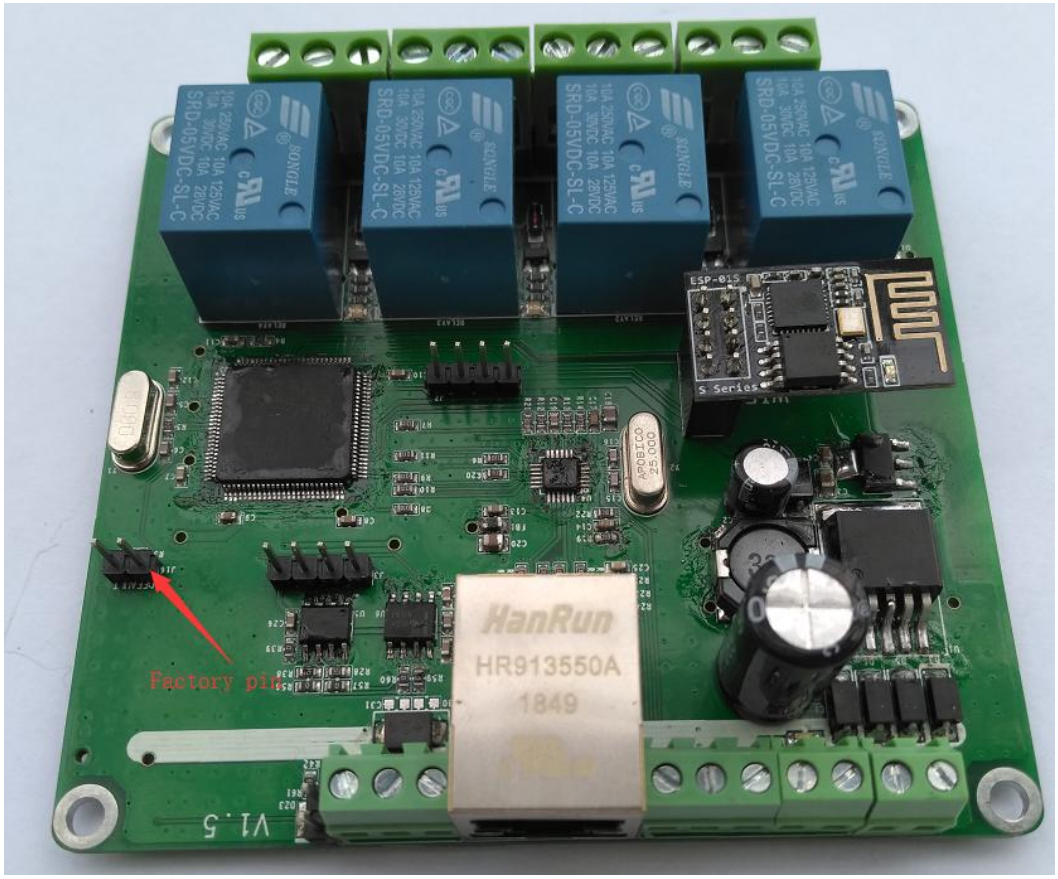
When the relay is released (or the module is powered down), the common and normally closed contacts are closed. After the pull-in, the two contacts are disconnected.

Connection example



3.3 Reset To Factory

1 Short the 2 pin headers under the Default assembly with a jumper cap



2 Turn off the power of the network module, and then power on the module again.

3 Pull out the Default jumper cap

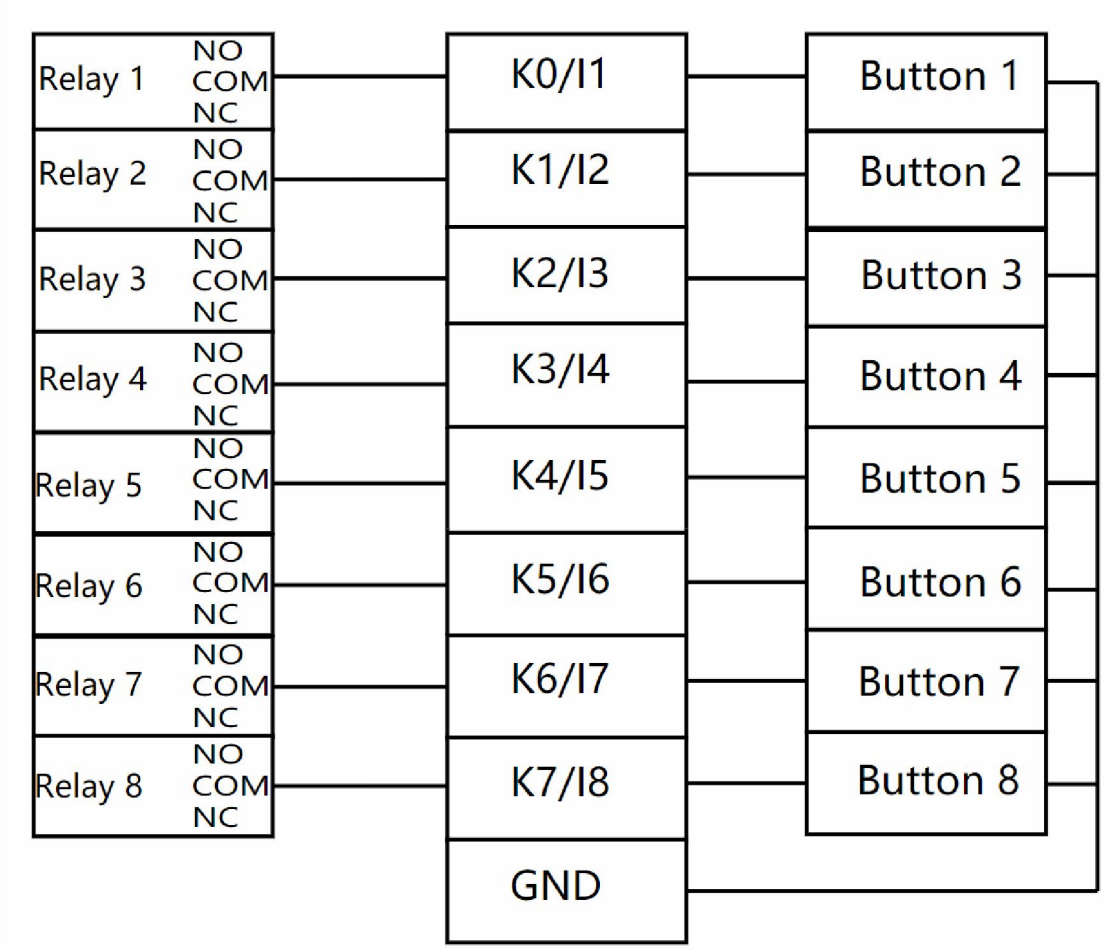
3.4 External input/Button control

K0~K7 Control Relay1~8

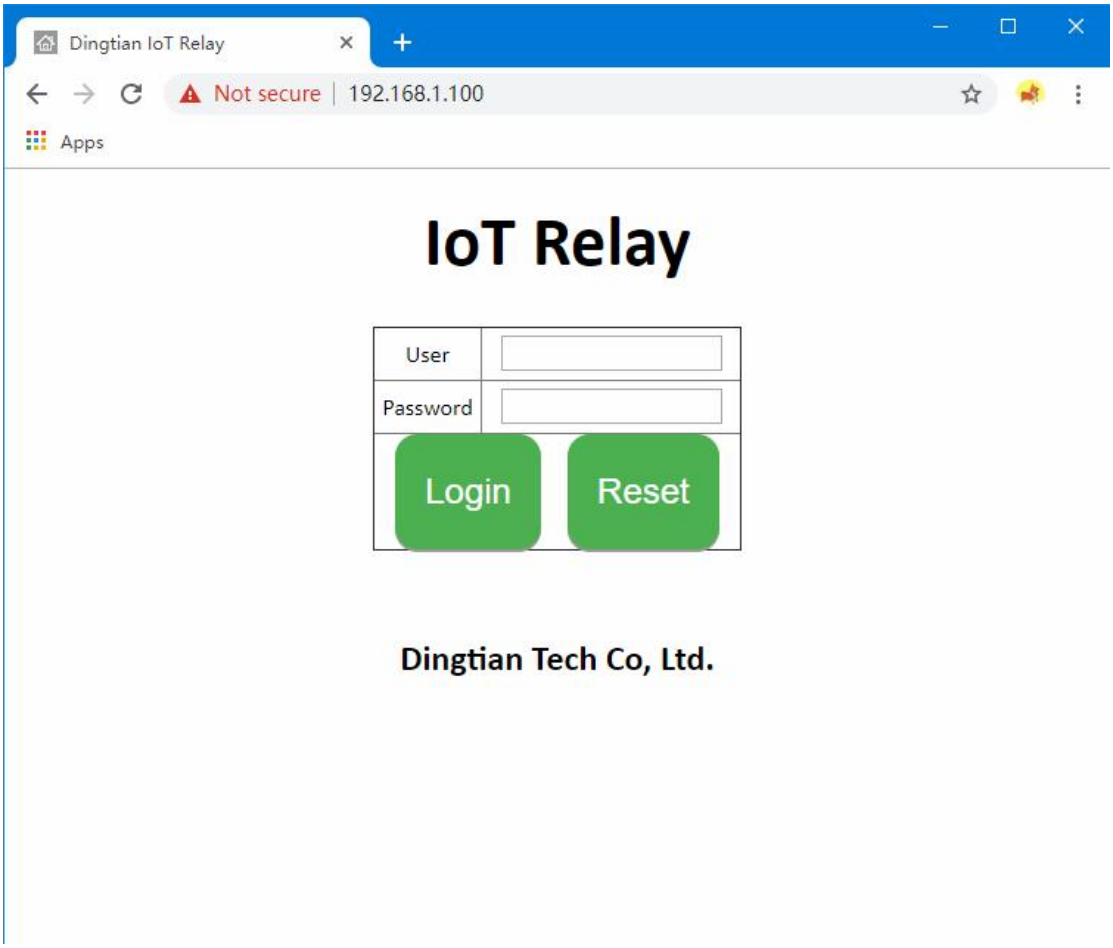
0V Relay On

3.3V Relay Off(Hardware Version < V1.8)

3.3V/5V/12V/24V Relay Off(Hardware Version >= V1.8)

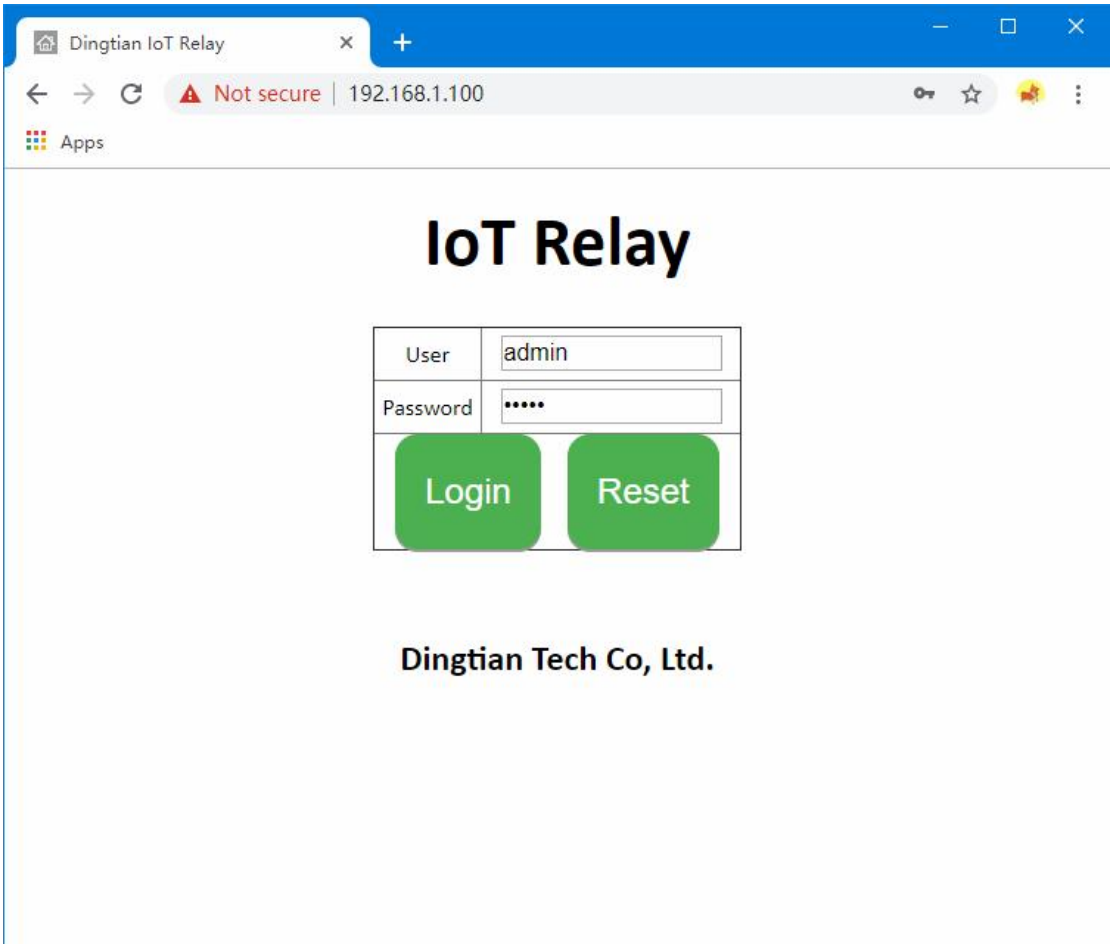


4 web

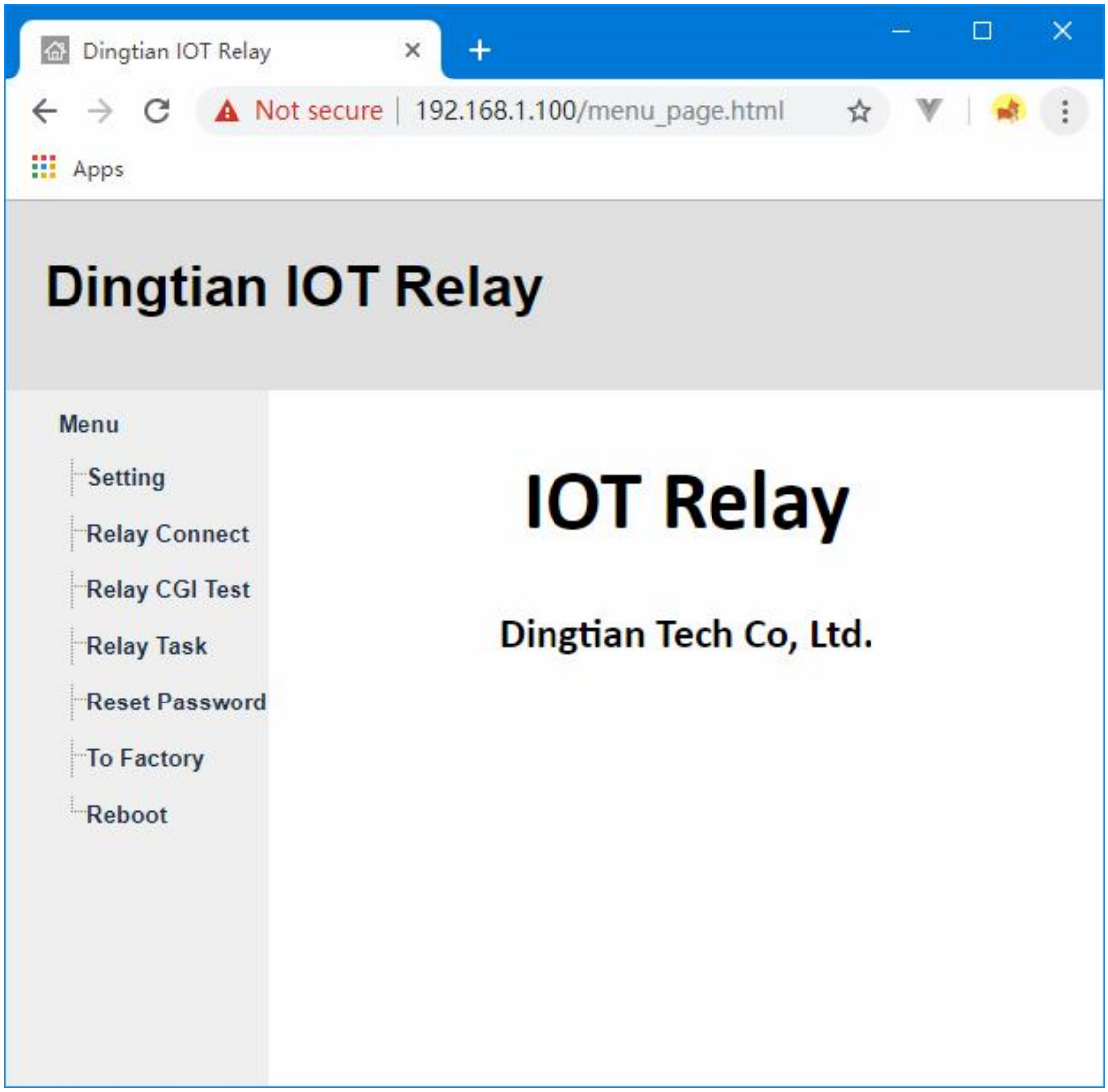


4.1 Login

user:admin
password:admin



webcome page



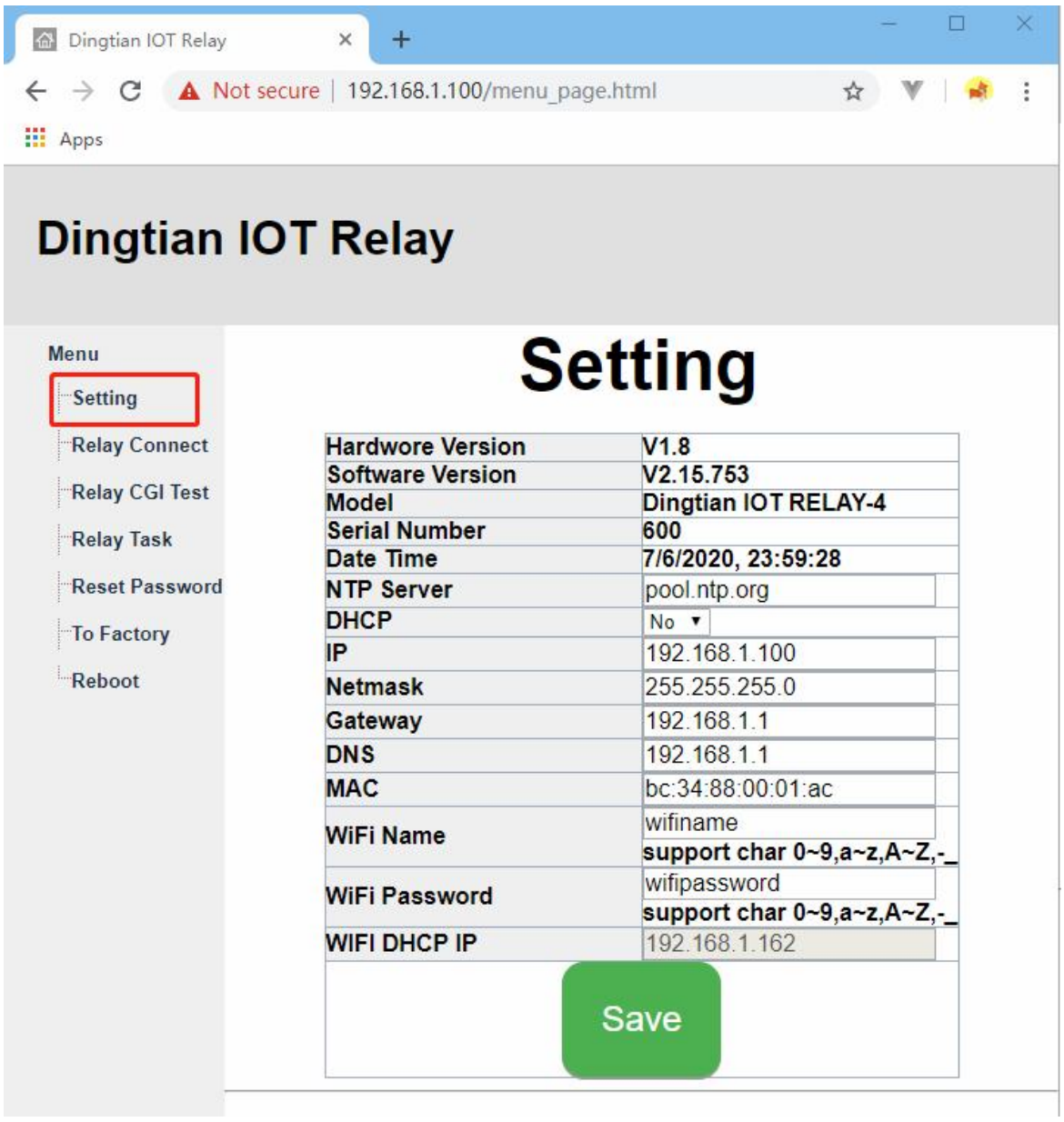
4.2 Setting Network and WIFI

setting page set network info,NTP Server and WIFI
after click “Save” button,device well reboot

Parameter:
Software Version: Relay board firmware version
Model:
2CH is Dingtian IOT RELAY-2
4CH is Dingtian IOT RELAY-4
8CH is Dingtian IOT RELAY-8
Serial Number: Relay board Serial Number
Date Time: current date and time(Need internet because of NTP)
NTP Server: NTP server get time from, suggest use pool.ntp.org
DHCP: Ethernet IP DHCP or Static
IP: Ethernet current IP Address

Netmask: Ethernet current Netmask
Gateway: Ethernet current Gateway
DNS: Ethernet current DNS Server
MAC: Ethernet current MAC address

WiFi Name: Your Router WiFi Name,Relay board will access to your router
WiFi Password: Your Router WiFi Password, Relay board will access to your router
WIFI DHCP IP: Relay board get IP from your Router
we can use this IP to control relay board via wireless



4.3 Setting Relay Connect

relay page set relay control interface param,and test relay
after click “Save” button,device well reboot

protocol reference programing manual_en.pdf

Channel Parameter:

RS485: RS485 protocl, addr, baudrate, databits, stopbits, parity config

Protocol:

Dingtian String

Dingtian Binary

Modbus-RTU

Modbus-ASCII

Baudrate:

1200bps,2400bps,4800bps,9600bps,19200bps,38400bps,57600bps,115200bps

CAN: CAN protocl, ID, Speed config

Protocol:

Dingtian String

Dingtian Binary

Modbus-RTU(0x03,0x06),only support Read/Write single register once time

Speed:

5Kbps,10Kbps,20Kbps,25Kbps,50Kbps,100Kbps,125Kbps,200Kbps,250Kbps,500Kbps,800Kbps,888Kbps,1Mbps

ETH-UDP1: Ethernet UDP1 protocl, Remote Server Address,Remote Server Port,Local Port config

Protocol:

Dingtian String

Dingtian Binary

Modbus-RTU Over UDP

Modbus-ASCII Over UDP

Modbus-UDP

CoAP

ETH-UDP2: Ethernet UDP2 protocl, Remote Server Address,Remote Server Port,Local Port config

Protocol:

Dingtian String

Dingtian Binary

Modbus-RTU Over UDP(use RS485 addr)

Modbus-ASCII Over UDP(use RS485 addr)

Modbus-UDP

CoAP

ETH-TCP Server: Ethernet TCP Server protocl, Local Port config

Protocol:

Dingtian String

Dingtian Binary

Modbus-RTU Over TCP(use RS485 addr)

Modbus-ASCII Over TCP(use RS485 addr)

Modbus-TCP

ETH-TCP Client: Ethernet TCP Client protocl, Remote Server Address,Remote Server Port config

Protocol:

Dingtian String
Dingtian Binary
Modbus-RTU Over TCP(use RS485 addr)
Modbus-ASCII Over TCP(use RS485 addr)
Modbus-TCP

ETH-MQTT: Ethernet MQTT protocl, Breaker Address, Breaker Port, Breaker Username, Breaker Password config

Protocol:
MQTT(without tls)

WIFI-UDP1: WIFI UDP1 protocl, Remote Server Address,Remote Server Port,Local Port config

Protocol:
Dingtian String
Dingtian Binary
Modbus-RTU Over UDP(use RS485 addr)
Modbus-ASCII Over UDP(use RS485 addr)
Modbus-UDP
CoAP

WIFI-UDP2: WIFI UDP2 protocl, Remote Server Address,Remote Server Port,Local Port config

Protocol:
Dingtian String
Dingtian Binary
Modbus-RTU Over UDP(use RS485 addr)
Modbus-ASCII Over UDP(use RS485 addr)
Modbus-UDP
CoAP

WIFI-TCP: WIFI UDP2 protocl, Remote Server Address,Remote Server Port,Local Port,Type config

Protocol:
Dingtian String
Dingtian Binary
Modbus-RTU Over TCP(use RS485 addr)
Modbus-ASCII Over TCP(use RS485 addr)
Modbus-TCP
HTTP(only support firefox)

Other Parameter:

Relay Password: use for check control is valid, control relay only passord is right

Keep Alive Second: send relay status to server with every "Keep Alive Second",only protocol Dingtian String and Dingtian binary have Keep Alive Second

Jogging Time: Jogging time, default is 500ms,1=100ms

what is Jogging: ON and delay 500ms OFF,or OFF and delay 500ms ON,

Power Failure Recovery Relay: relay status will restore after re-power

Button Type Parameter:

Selflock: Connect Selflock Button,

press button relay ON,release button relay OFF

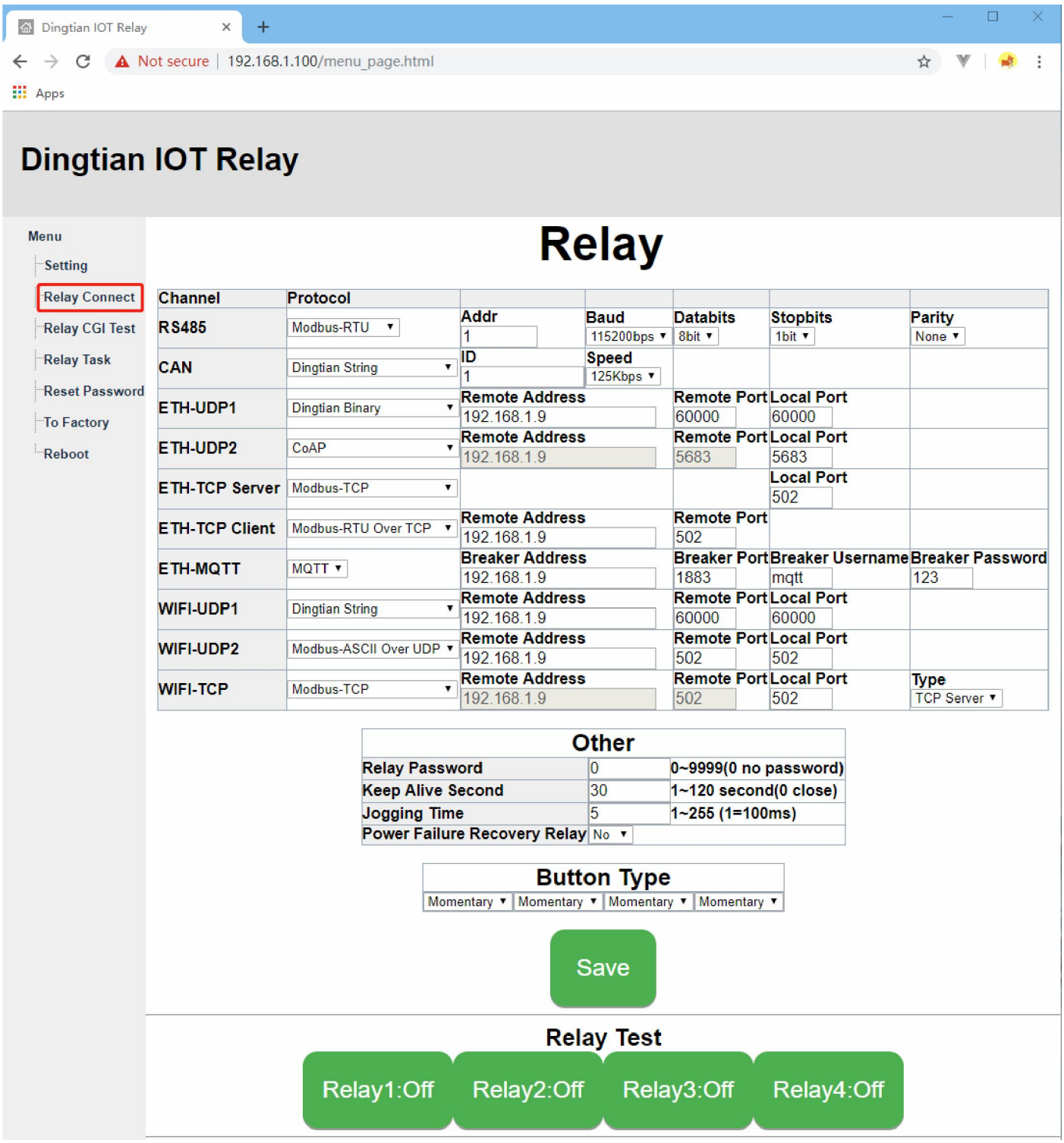
Jogging: Connect Momentary Button,

press and release button relay Jogging(ON and delay 500ms OFF)

Momentary: Connect Momentary Button,

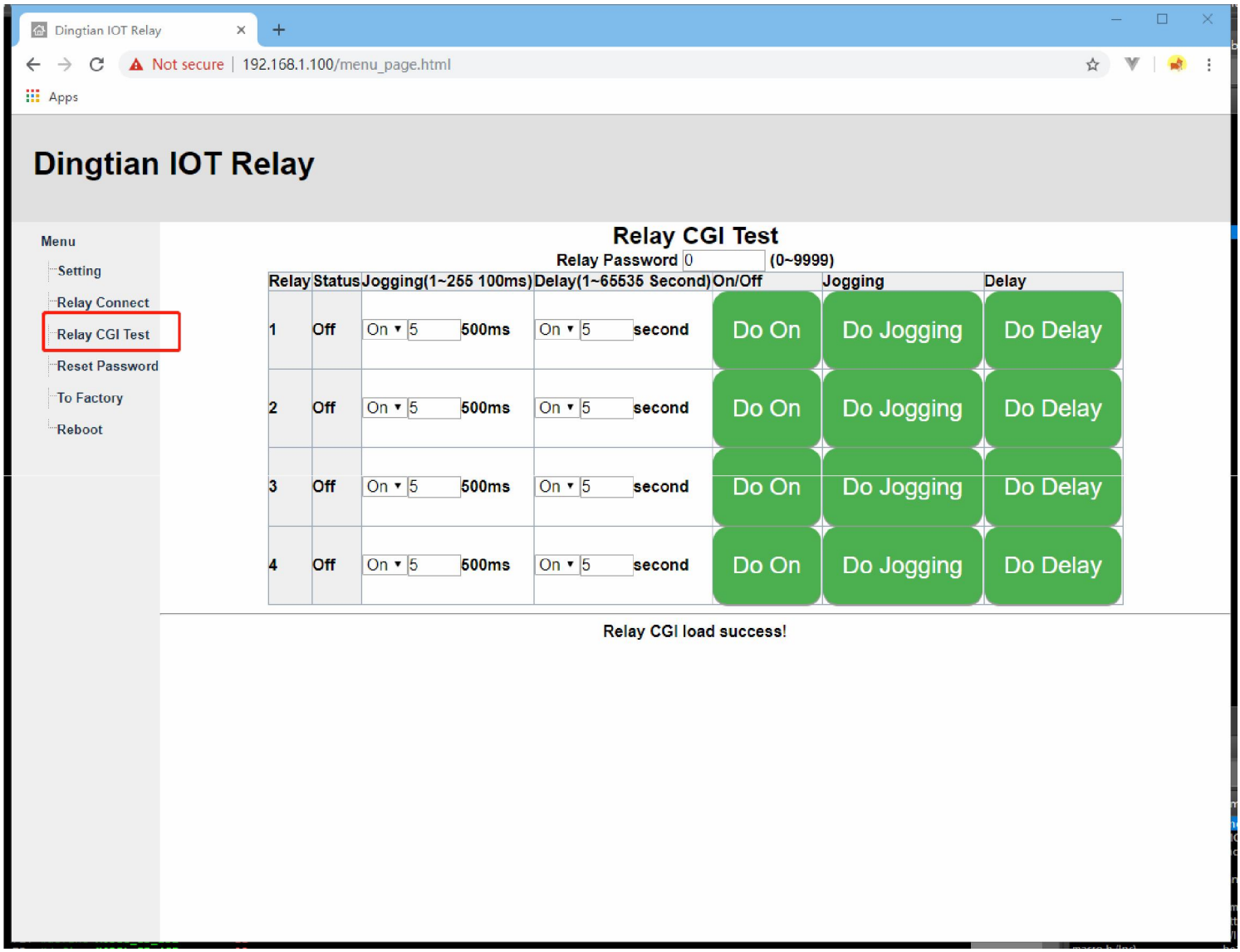
press and release button relay ON,press and release button relay OFF

How to Connect button please move to 3.4 External input/Button control

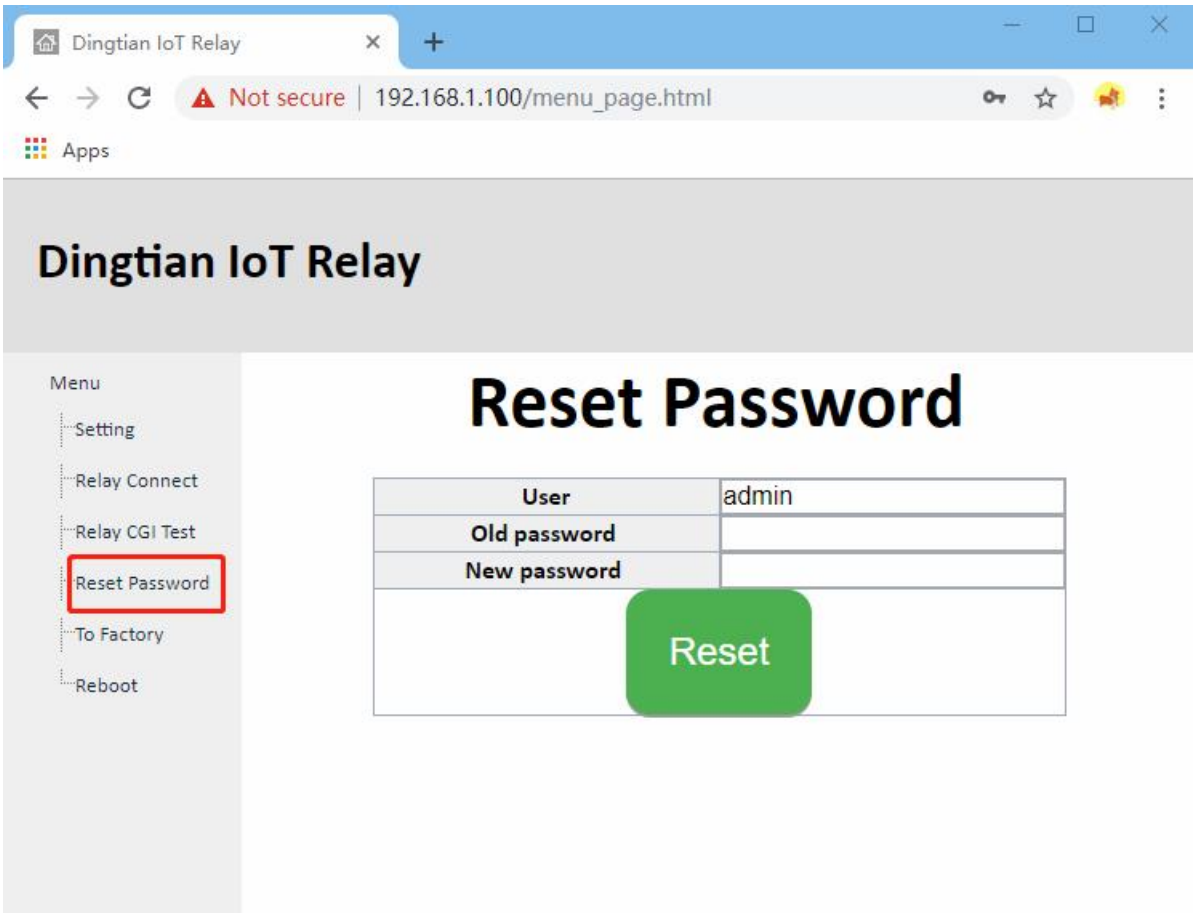


4.4 Relay CGI Test

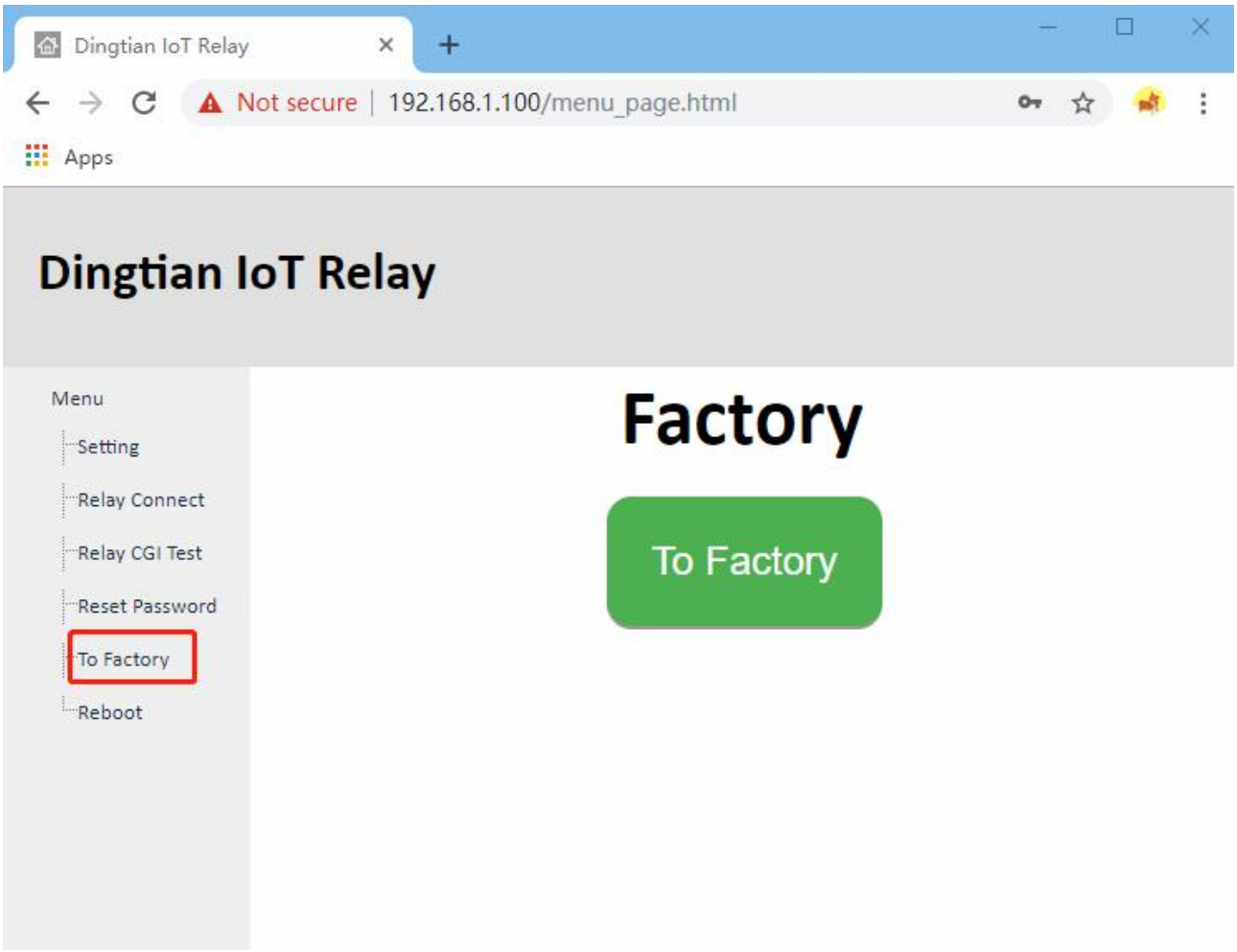
relay CGI test



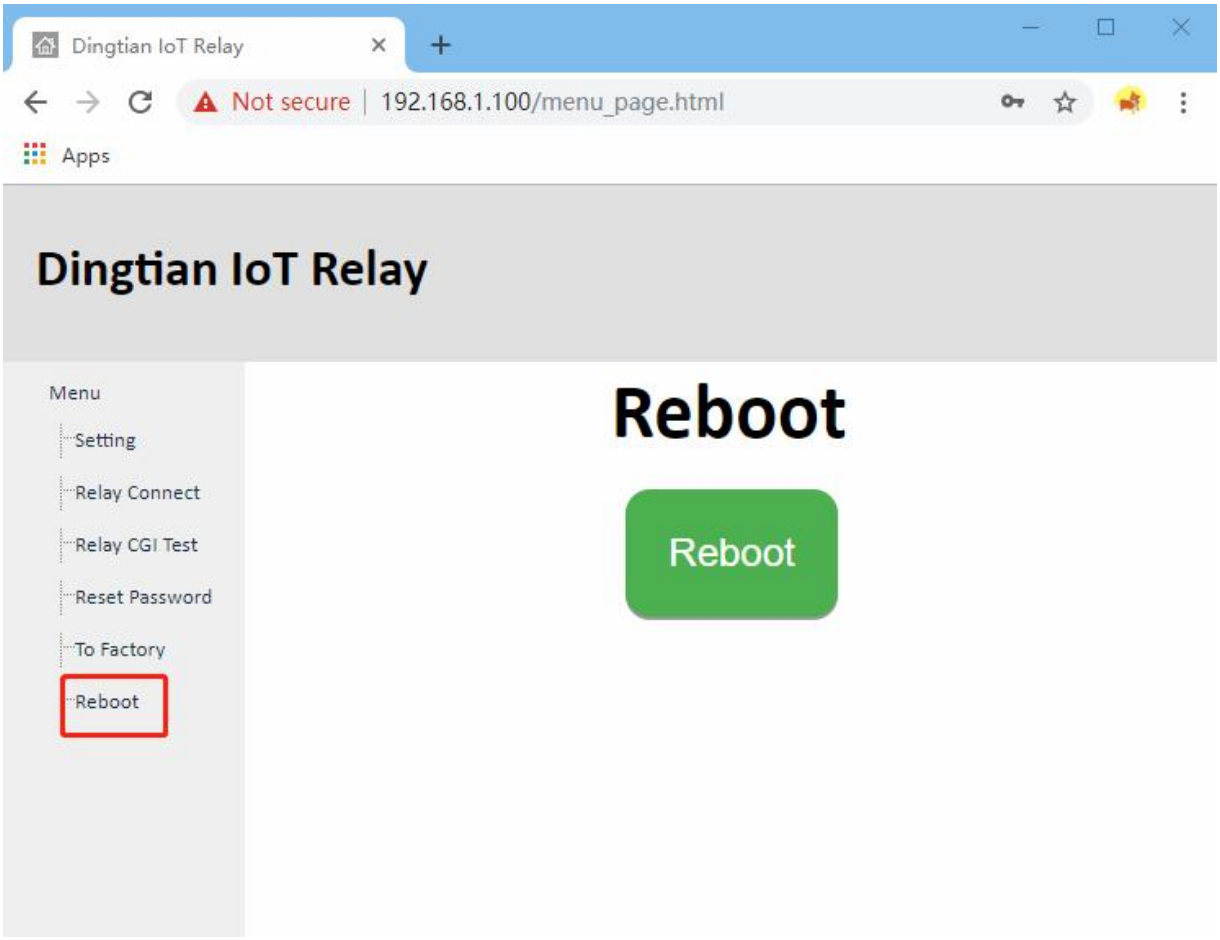
4.5 Reset Password



4.6 To Factory

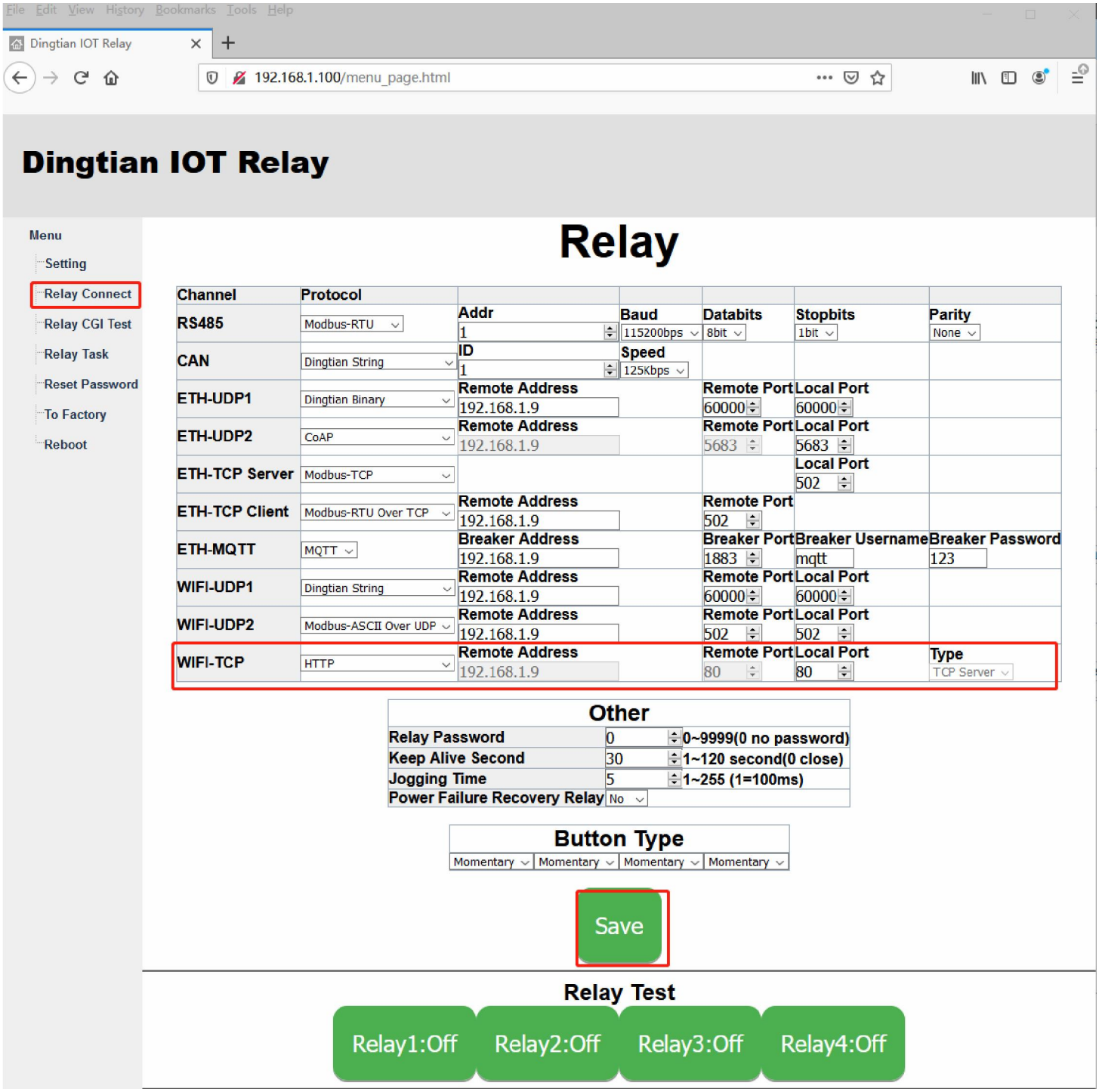


4.7 Reboot


Dingtian IoT Relay
Not secure | 192.168.1.100/menu_page.html
Apps
Dingtian IoT Relay
Menu
Setting
Relay Connect
Relay CGI Test
Reset Password
To Factory
Reboot
Reboot
Reboot

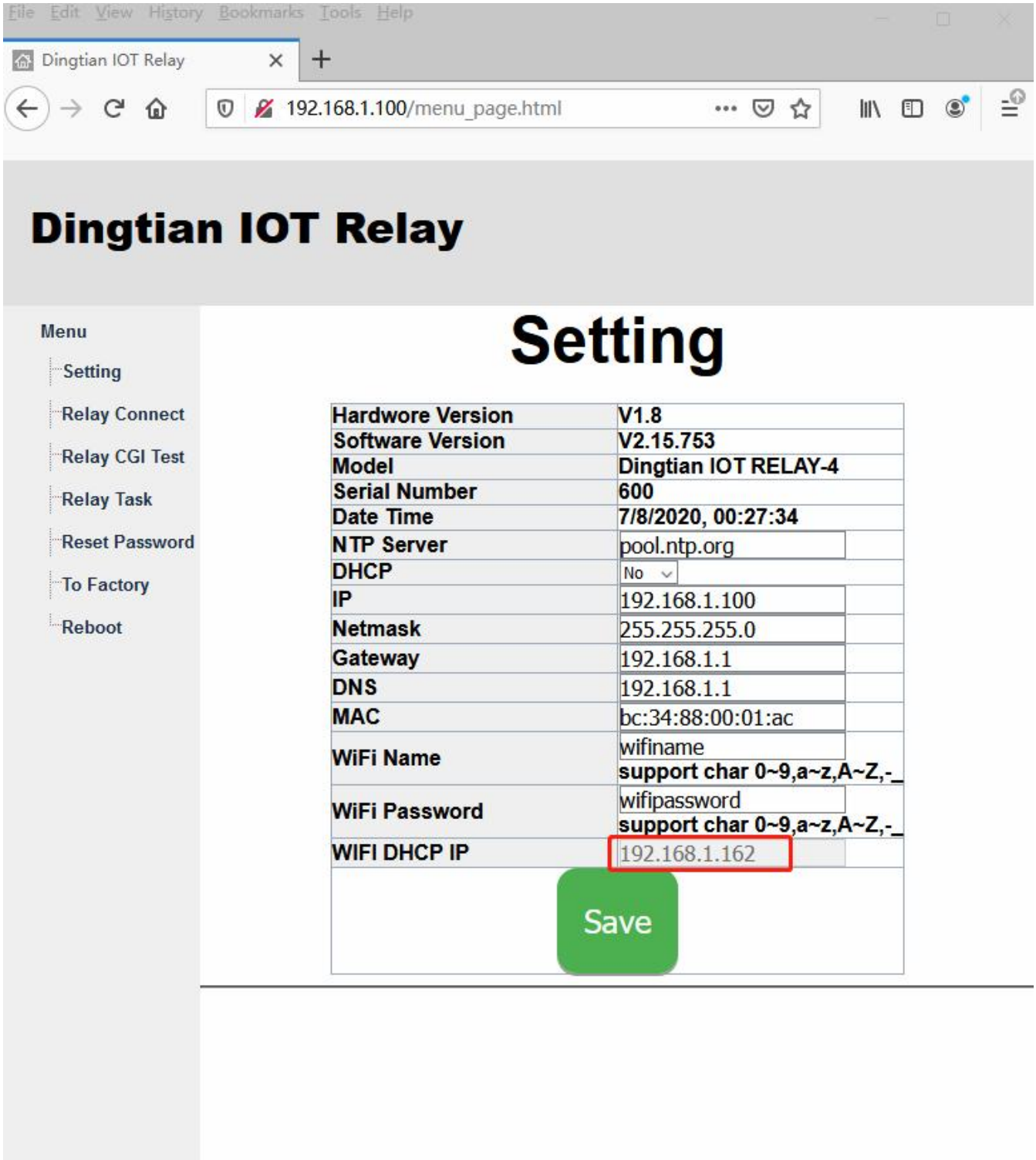
4.8 WIFI web Page

4.8.1 Set wifi TCP as HTTP protocol



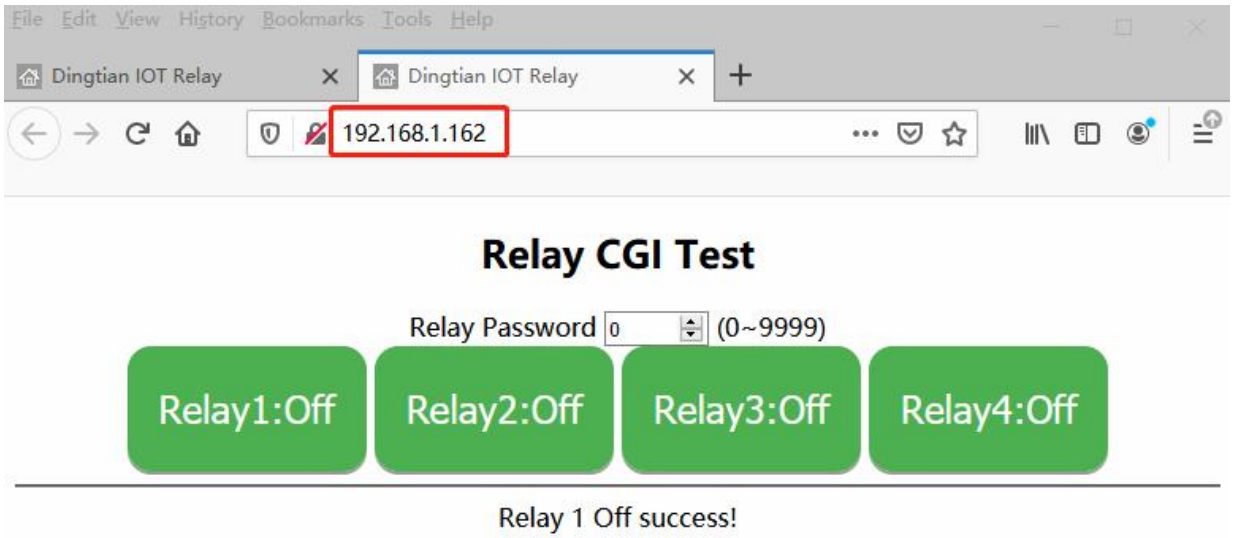
4.8.2 check wifi get DHCP IP

below image,the relay board get DHCP IP is 192.168.1.162



4.8.3 use firefox browser wifi web page

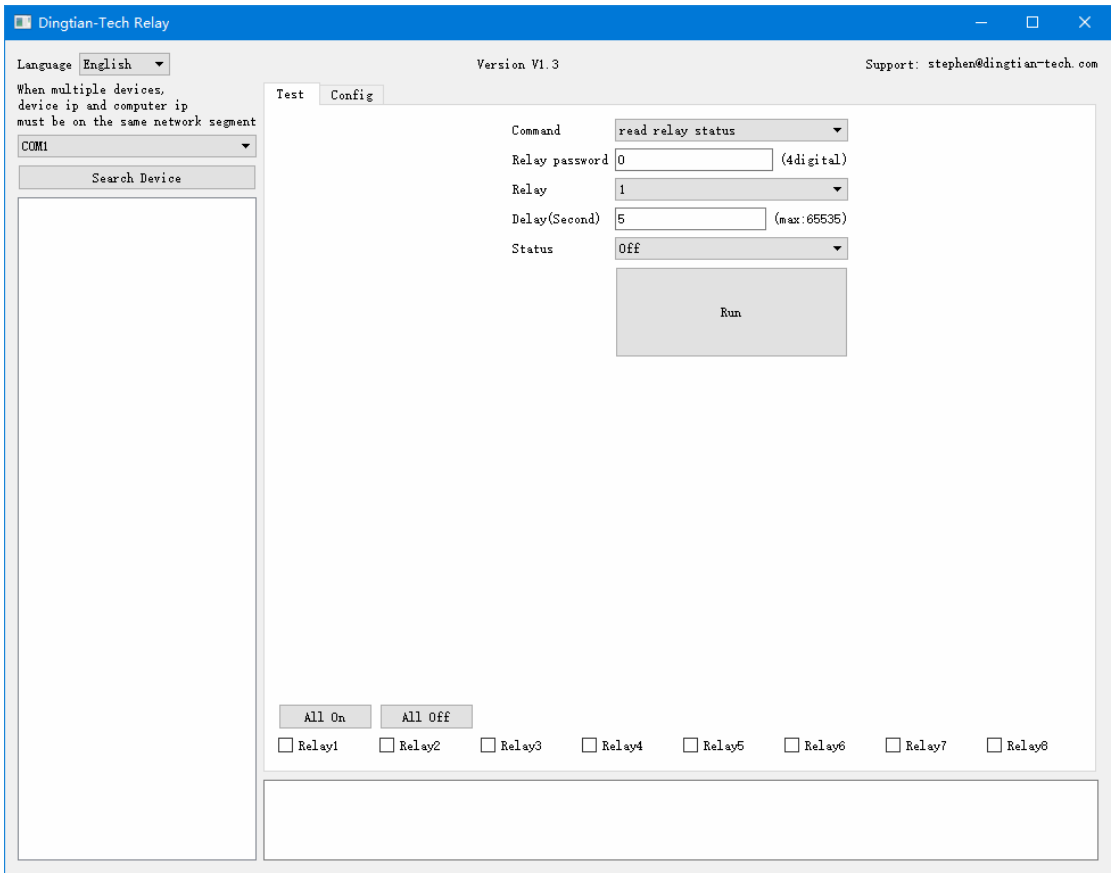
maybe load web page fail,please wait one minute and try again.



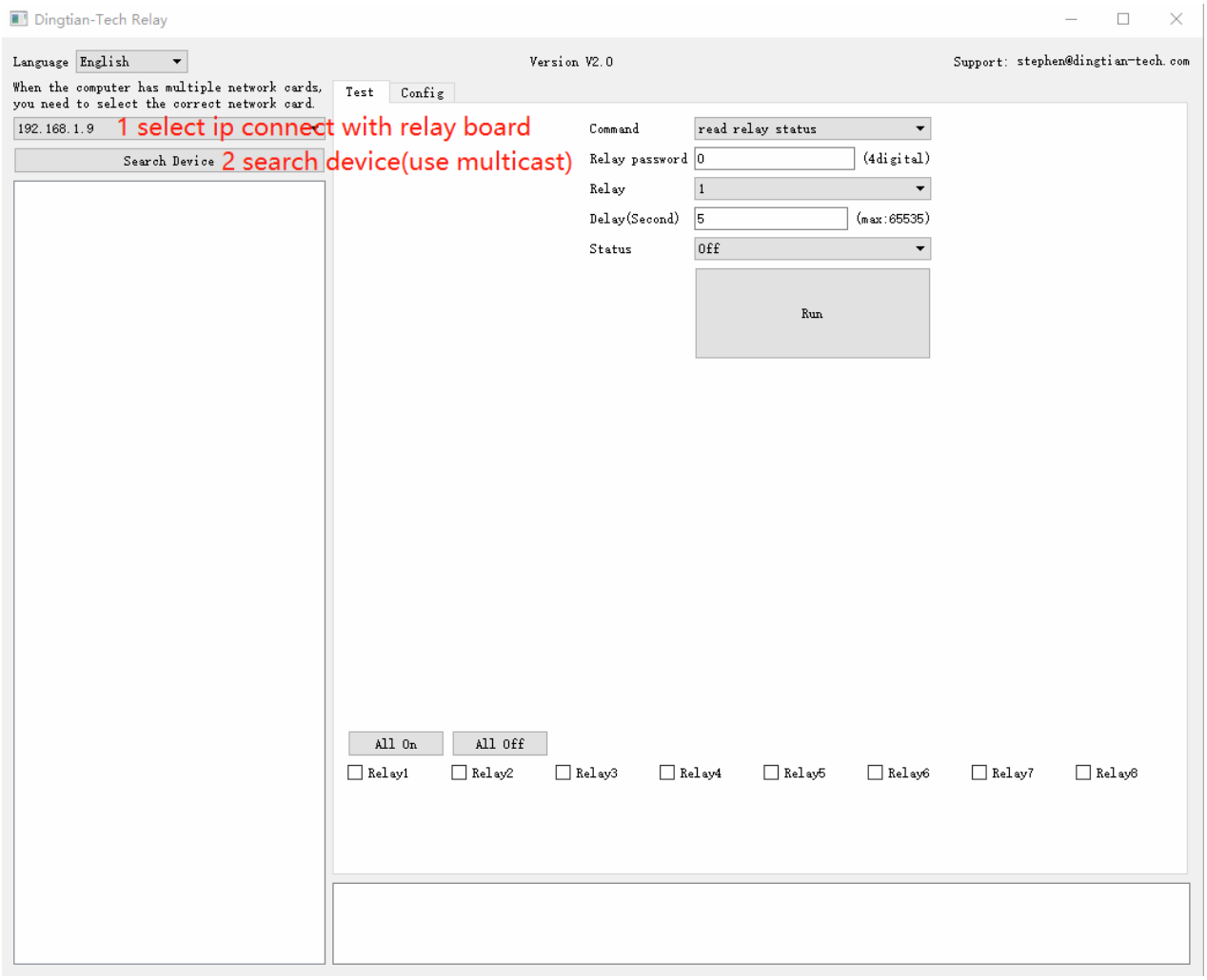
5 PC app

Notic: When the computer has multiple network cards,only one can be reserved.

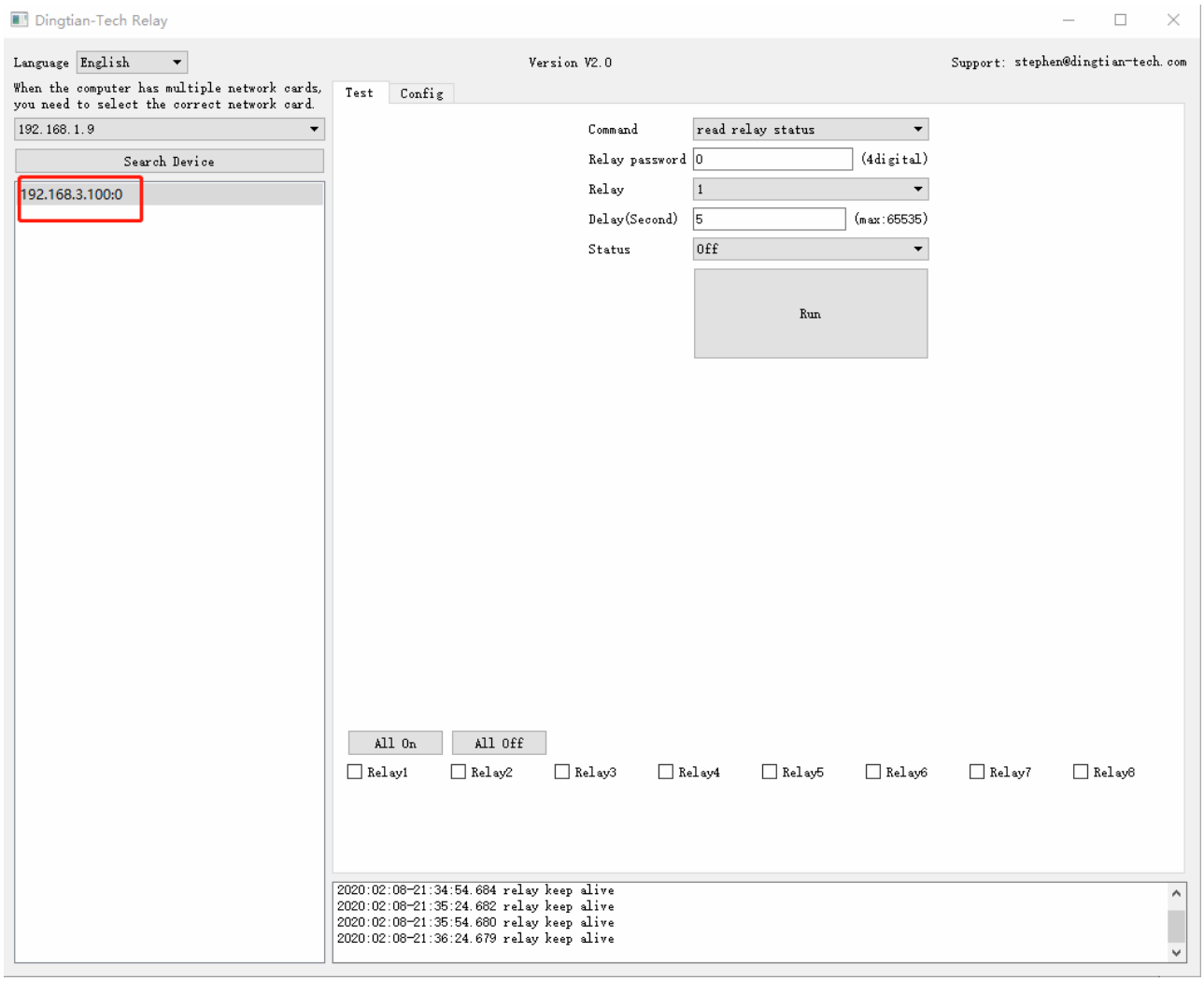
Most of time this tool is use to find the ip of relay board


Dingtian-Tech Relay
Language English
Version V1.3
Support: stephen@dingtian-tech.com
When multiple devices,
device ip and computer ip
must be on the same network segment
COM1
Search Device
Test
Config
Command
read relay status
Relay password
0
(4digital)
Relay
1
Delay(Second)
5
(max:65535)
Status
Off
Run
All On
All Off
Relay1
Relay2
Relay3
Relay4
Relay5
Relay6
Relay7
Relay8

5.1 Search Device

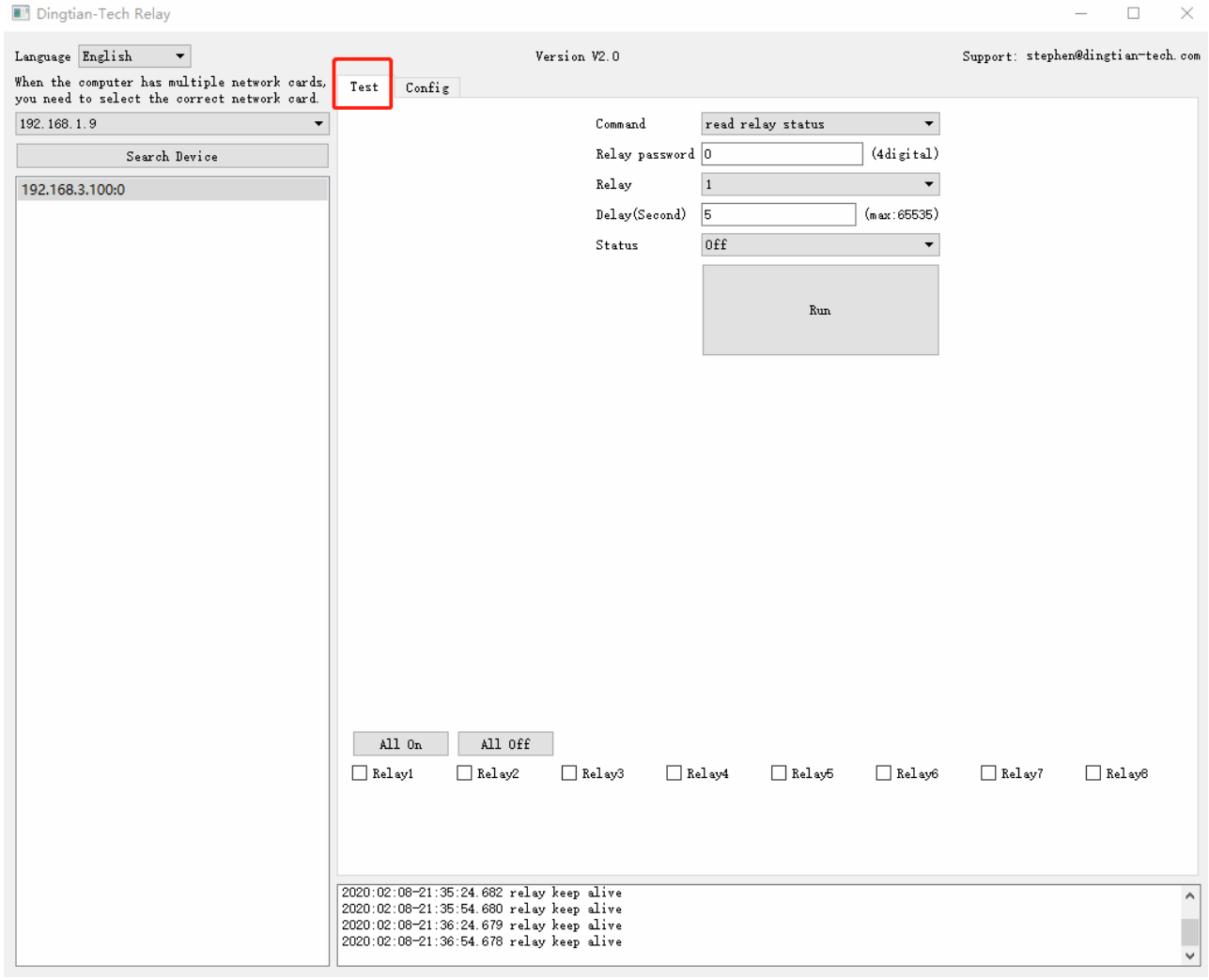


web can search a device ip is 192.168.3.100,but computer ip is 192.168.1.9

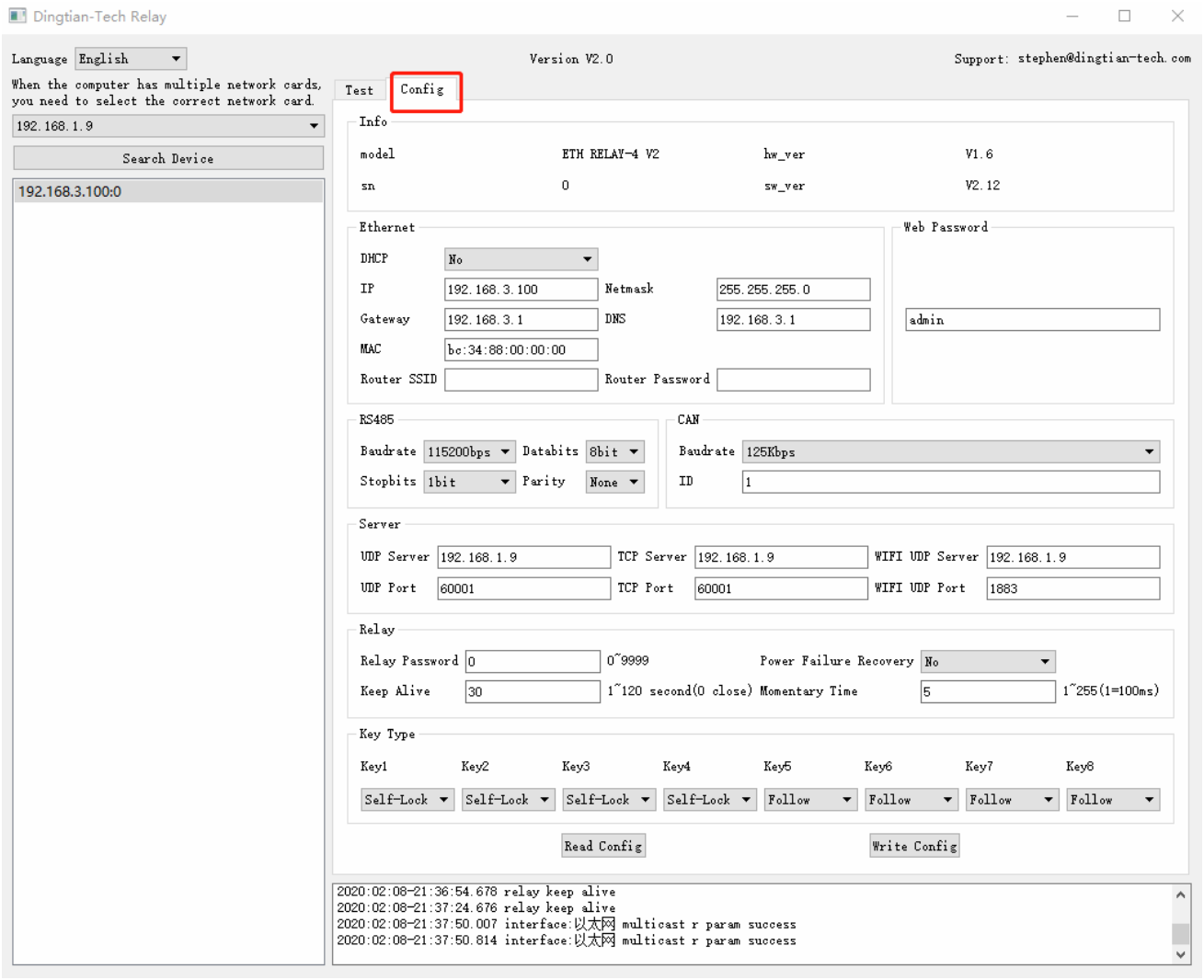


next， web can test relay,and config device

5.2 Test Relay



5.3 Config Device



Appendix I How to Test Command

step 1: download SDK

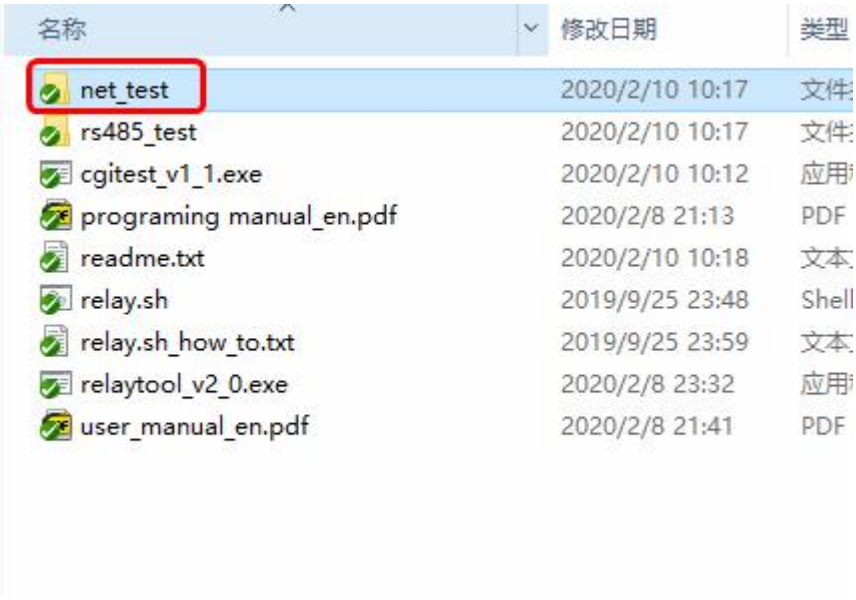
we can find network tool in SDK

ftp://ftp.dingtian-tech.com/relay_sdk.zip

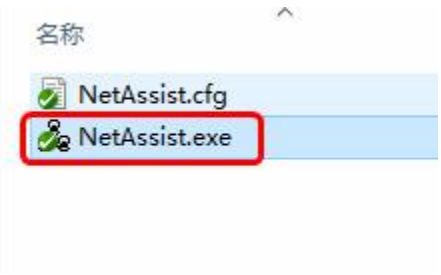
unzip relay_sdk.zip

network tool name is net_test

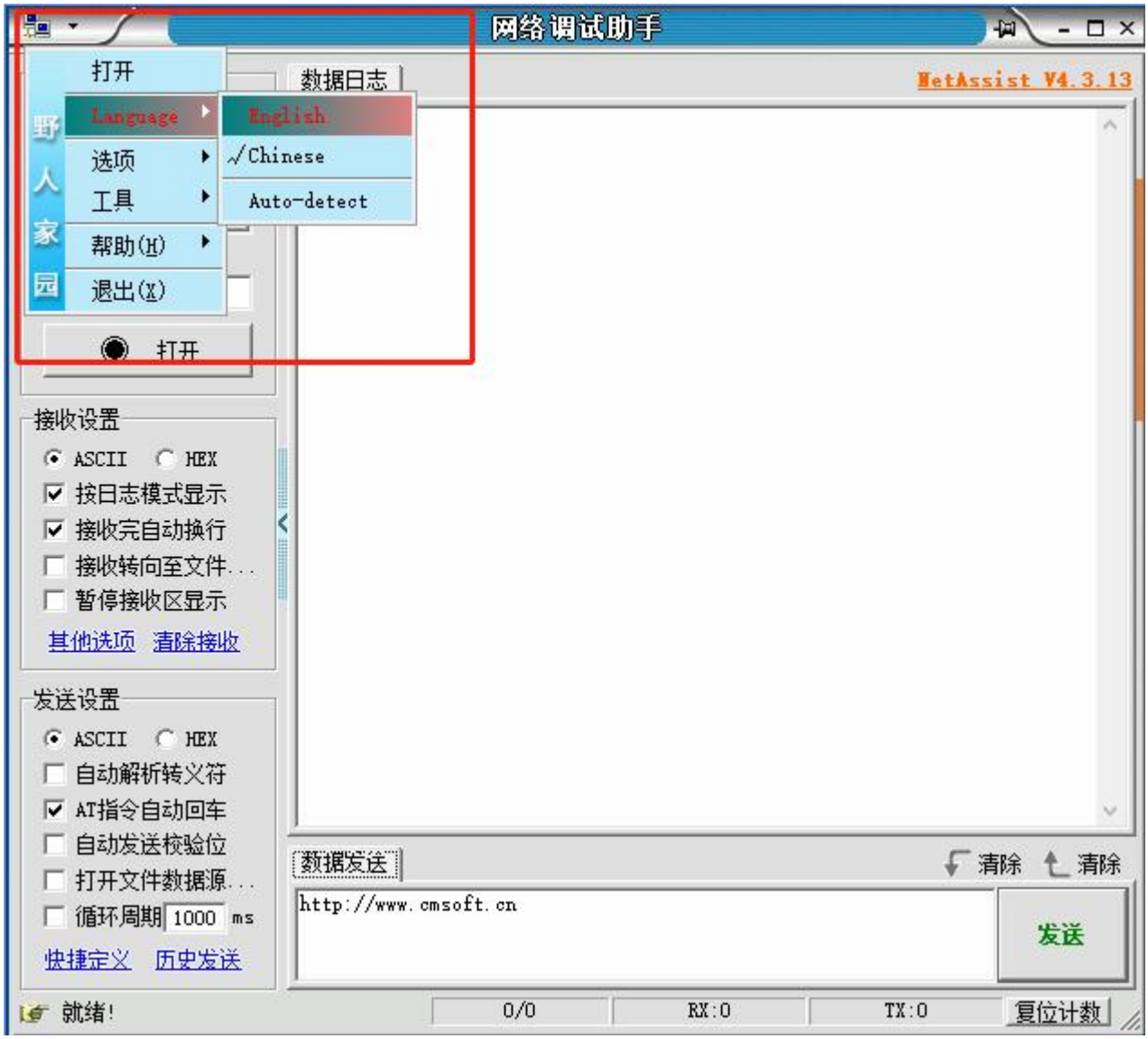
rs485 tool name is rs485_test



enter directory “net_test”



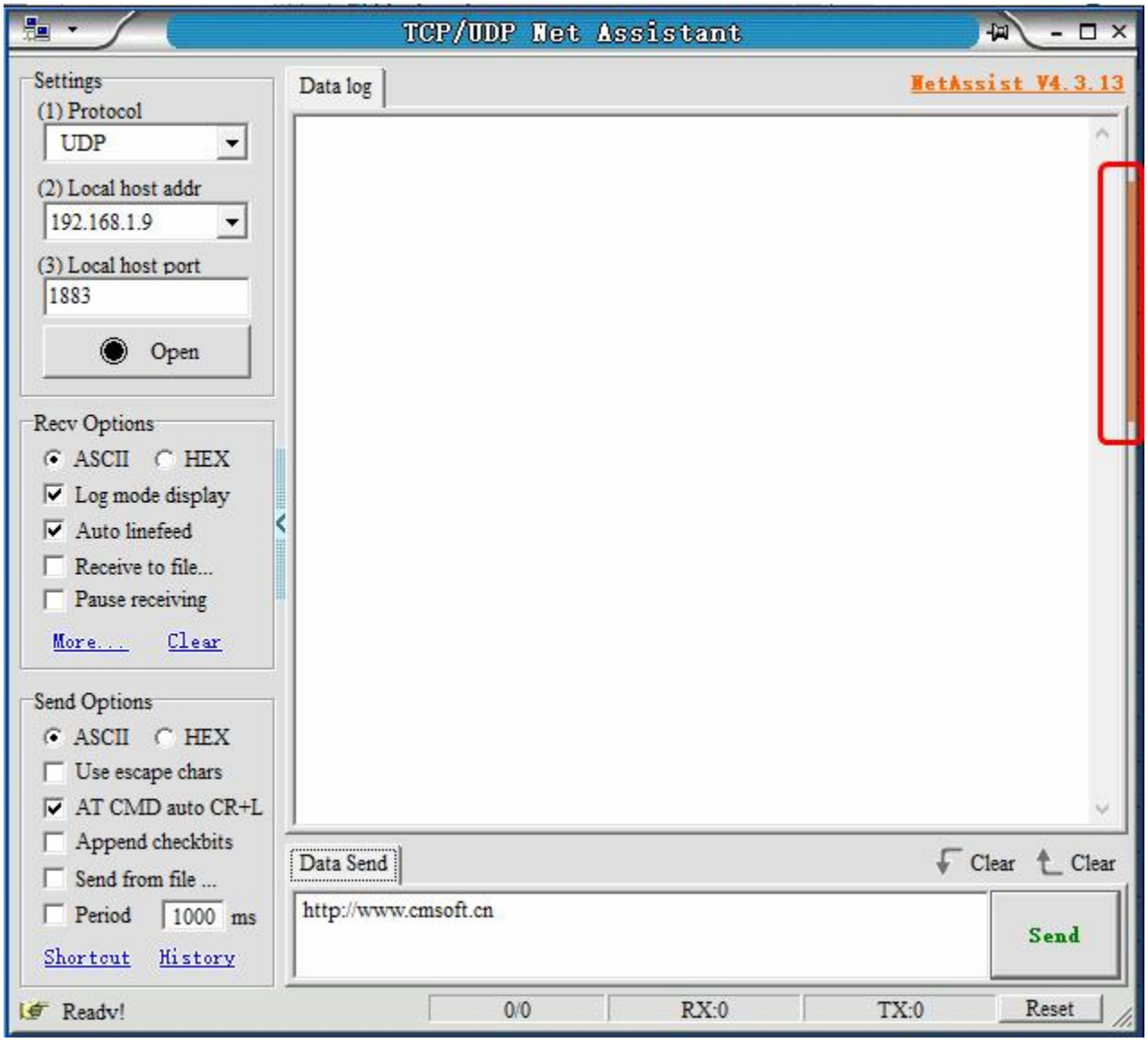
step 2: Change NetAssist language

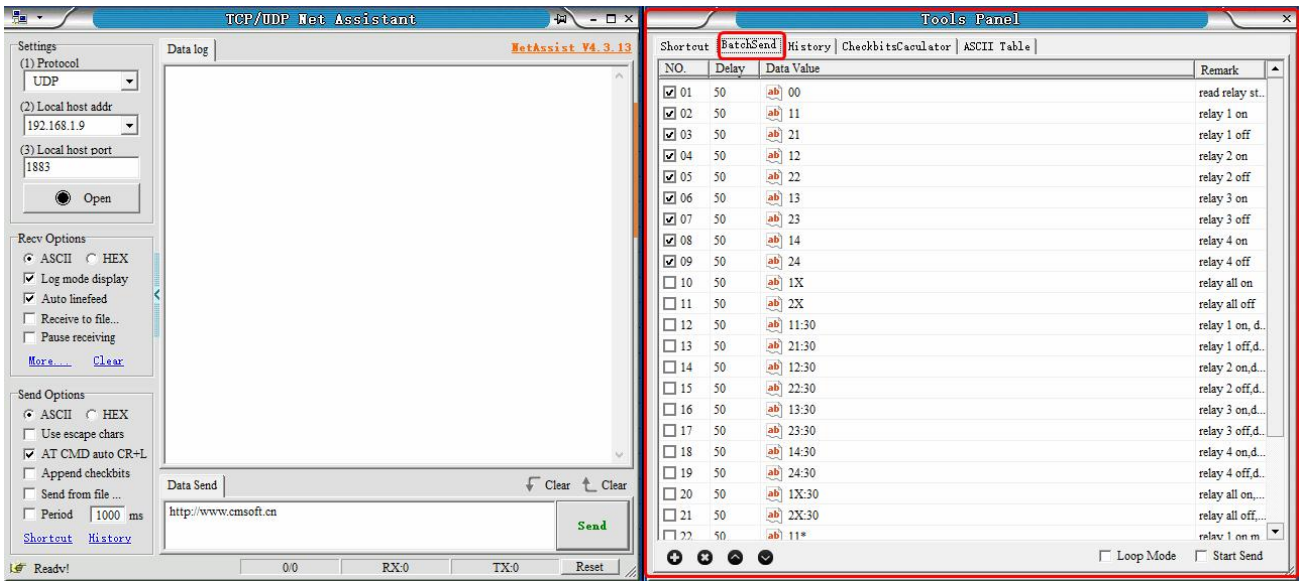


step 3: Control relay via NetAssist network tool by wifi module

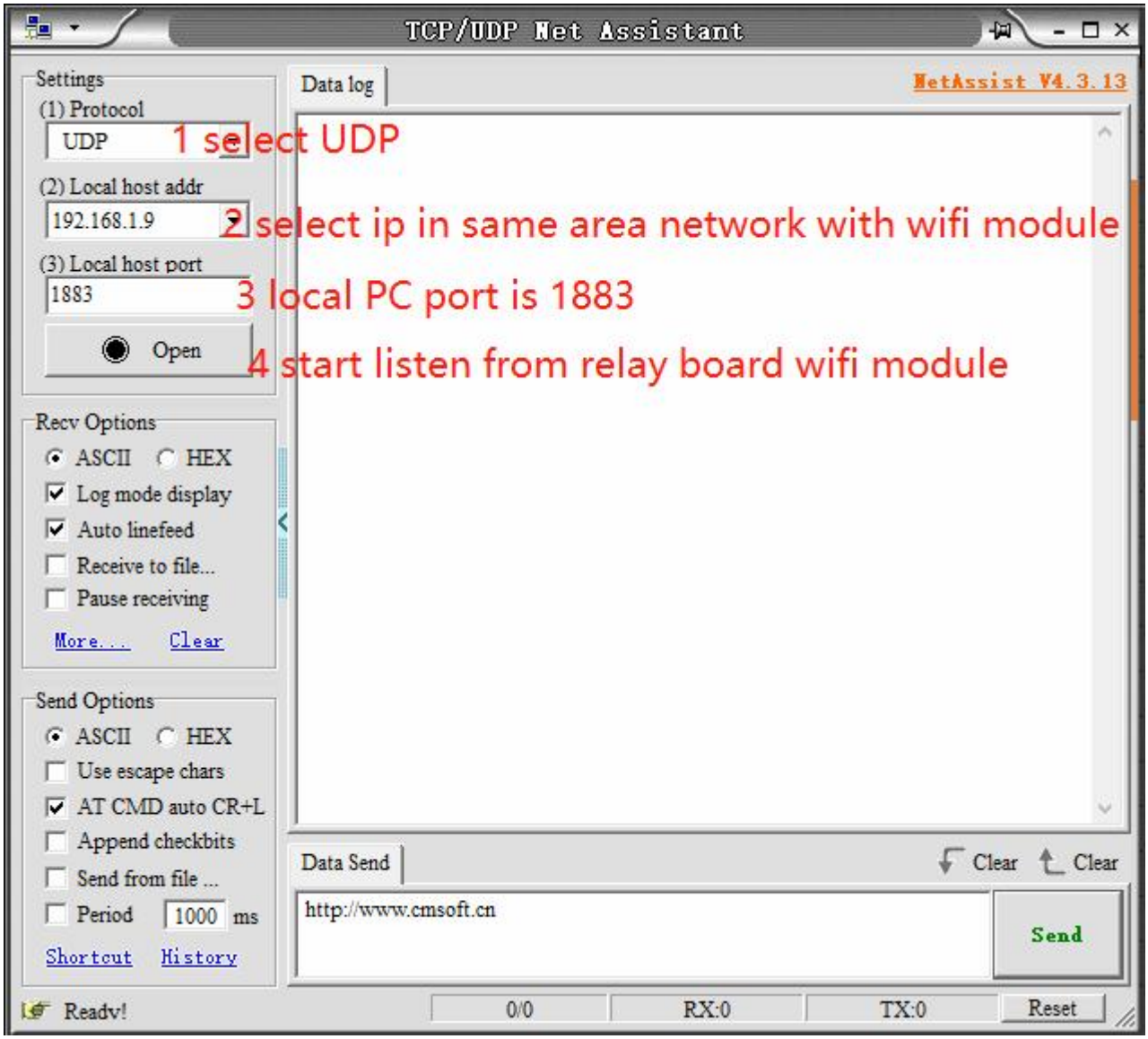
open NetAssist.exe

Shown in red box, open expansion panel

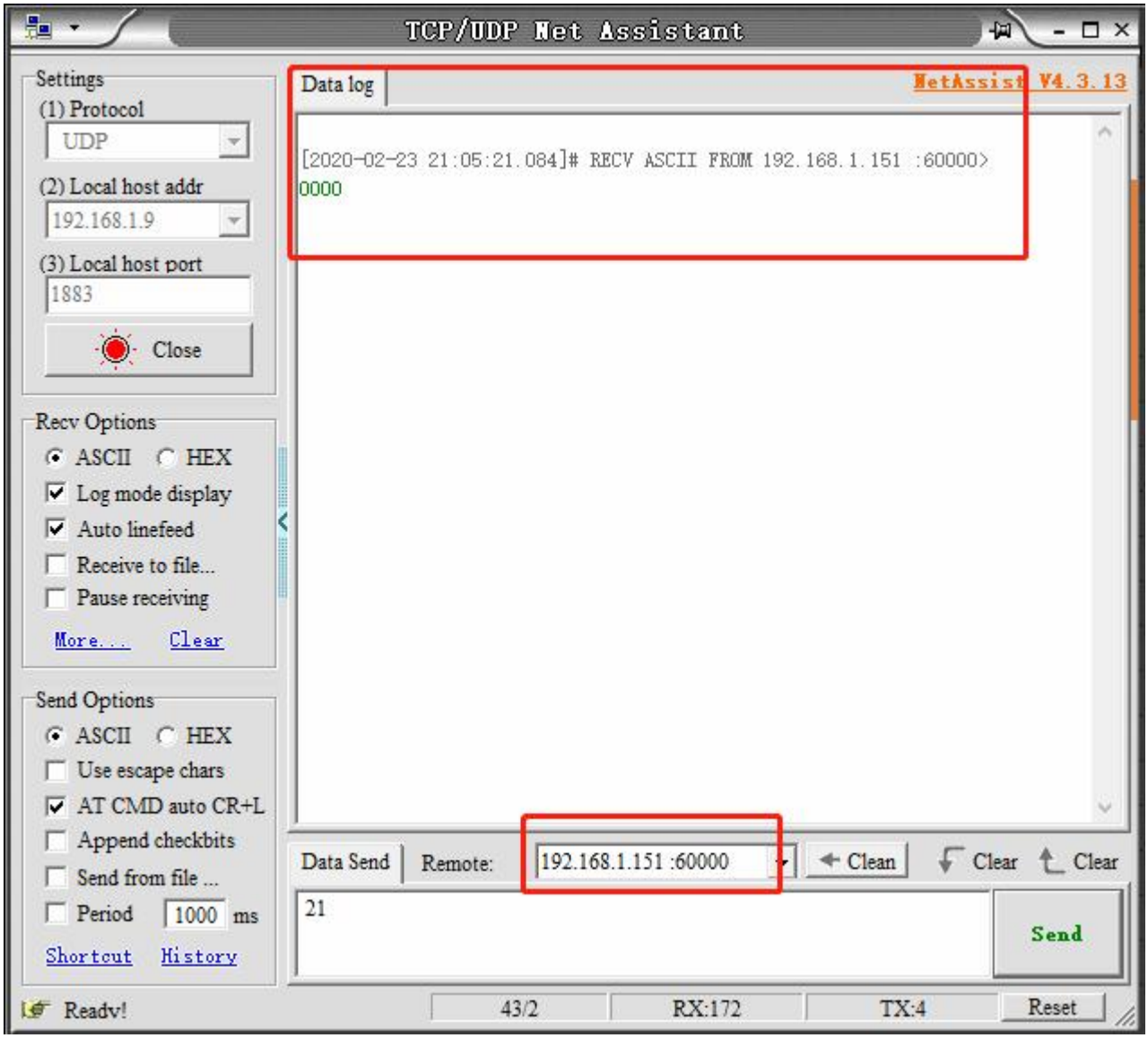

TCP/UDP Net Assistant
Settings
(1) Protocol
UDP
(2) Local host addr
192.168.1.9
(3) Local host port
1883
Open
Recv Options
ASCII
HEX
Log mode display
Auto linefeed
Receive to file...
Pause receiving
More...
Clear
Send Options
ASCII
HEX
Use escape chars
AT CMD auto CR+L
Append checkbits
Send from file ...
Period
1000
ms
Shortcut
History
Data log
NetAssist V4.3.13
Data Send
Clear
Clear
http://www.cmsoft.cn
Send
Readv!
0/0
RX:0
TX:0
Reset


TCP/UDP Net Assistant
Tools Panel
Shortcut
BatchSend
History
CheckbitsCaculator
ASCII Table
NO.
Delay
Data Value
Remark
Loop Mode
Start Send

step 4: open UDP listen.

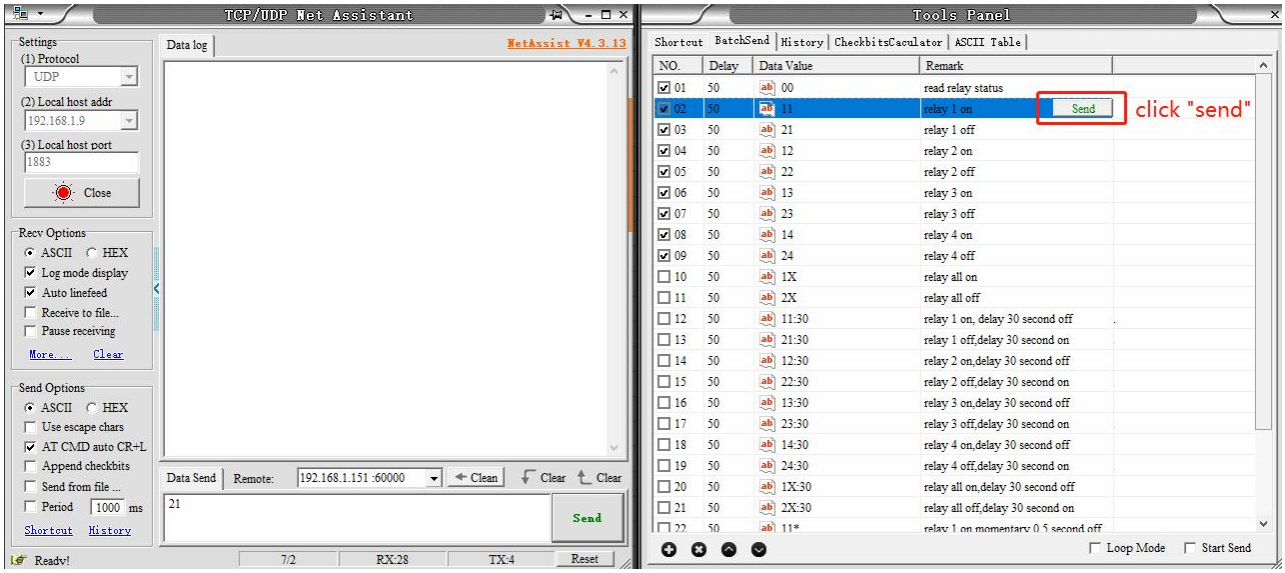


now relay board well send relay status to pc via wifi module



step 5: control relay via wifi module

NetAssist tool saved preset command
we only need send to relay board via netAssist
like below set relay 1 on

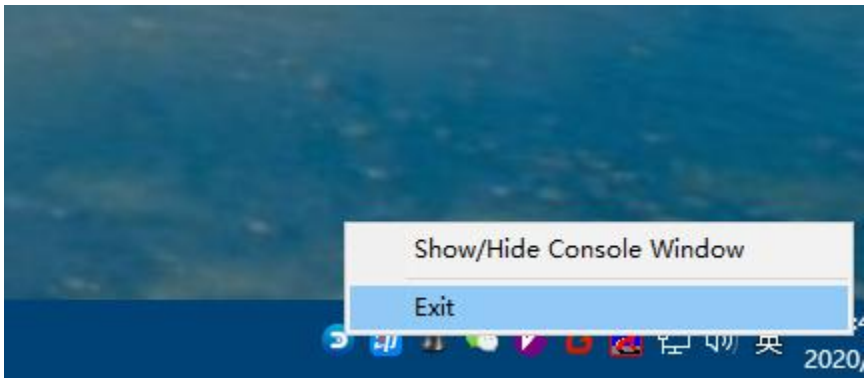


Appendix II How to use Domoticz

step 1: install Dingtian plugin to Domoticz

Dingtian plugin find in SDK or github
ftp://ftp.dingtian-tech.com/relay_sdk.zip
https://github.com/dtlzp/Domoticz-Dingtian-Relay-Plugin

1 Stop Domoticz



2 Copy Domoticz_plugins\dingtian to Domoticz plugin dir

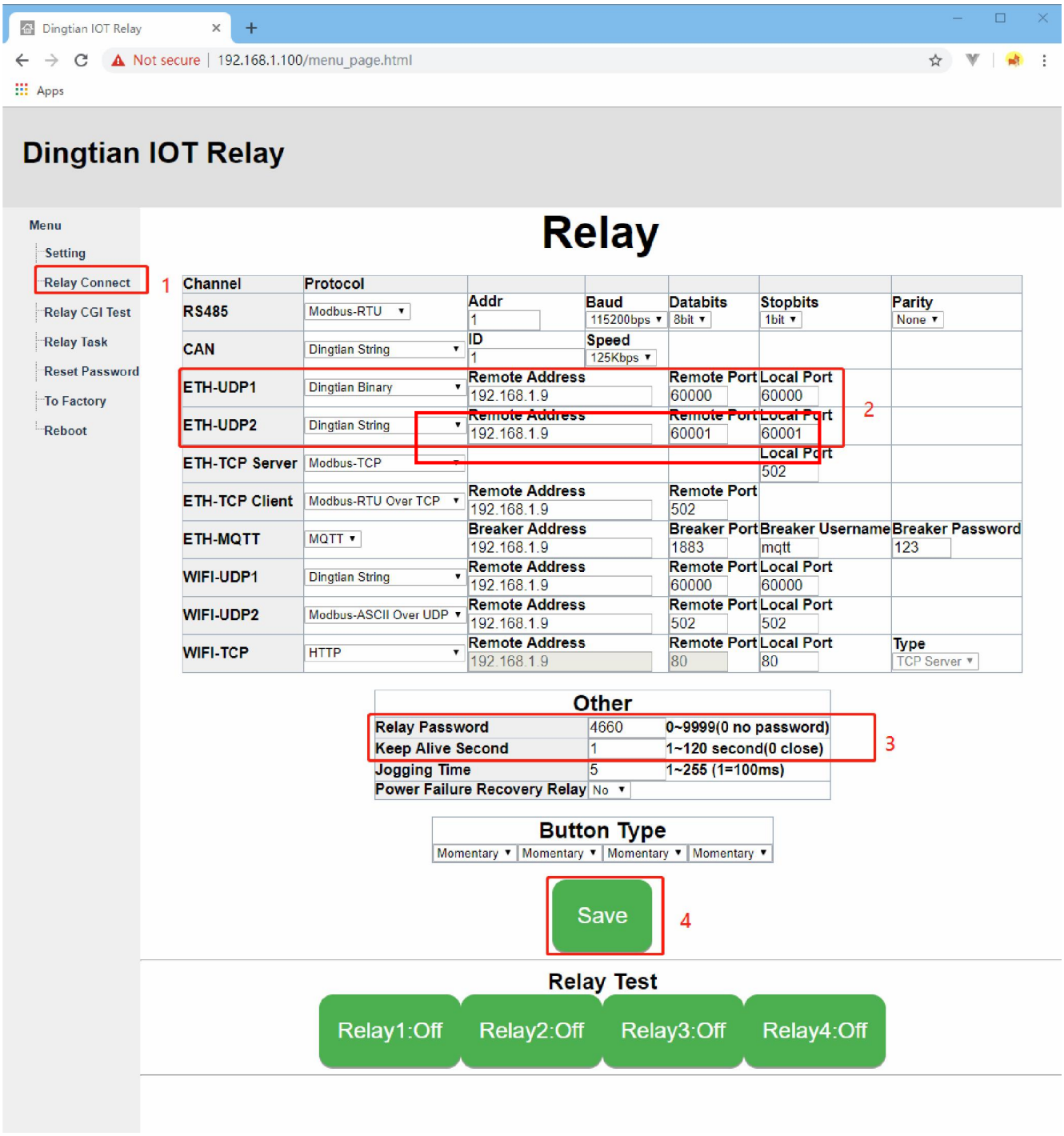
to Domoticz install dir

now Dingtian Relay plugin success installl to Domoticz.

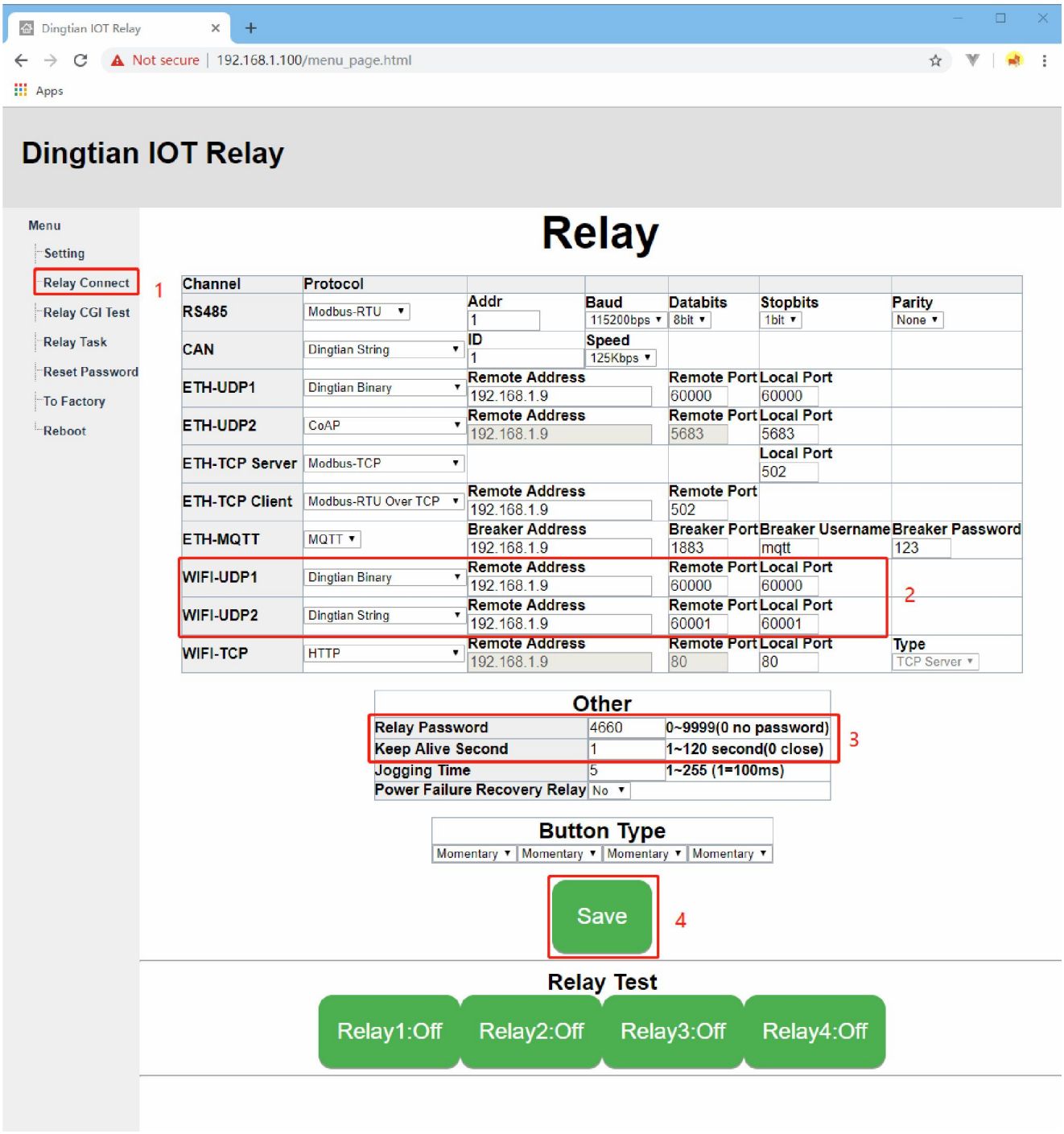
step 2: config Dingtian Relay board

1 config relay board UDP Server,Keep Alive Second and Relay Password

If use Ethernet



If use WIFI



Dingtian Relay board web page **Relay Connect**

set UDP Server, Relay Password and Keep Alive Second

Notice: UDP Server set to Domoticz Server IP

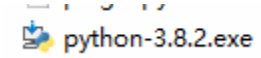
Save config

step 3: Add Dingtian Relay to Domoticz

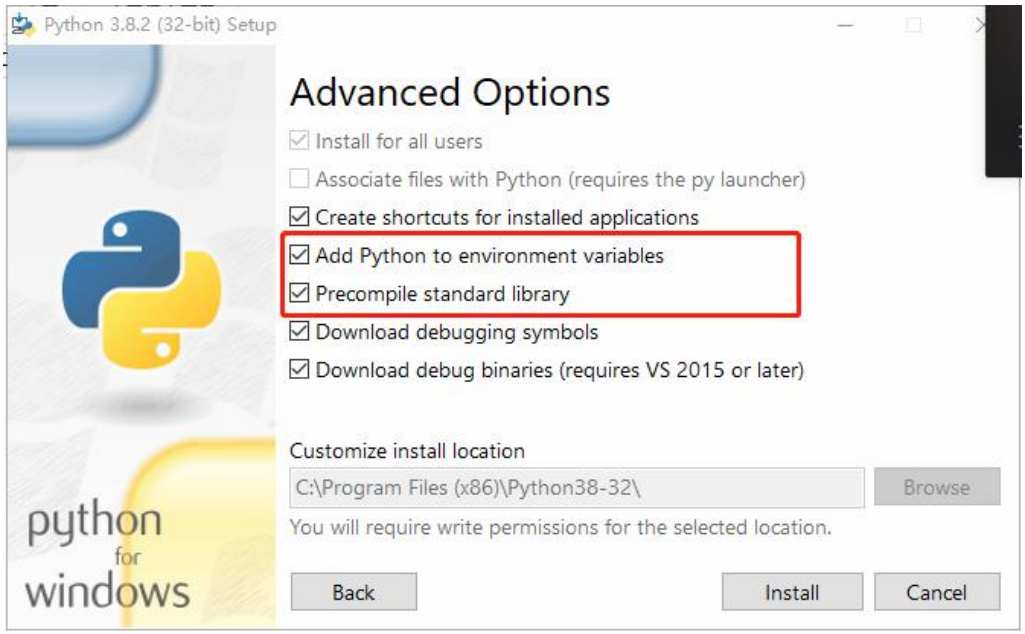
1 Install Python 3.8.2

download address:
https://www.python.org/ftp/python/3.8.2/python-3.8.2.exe

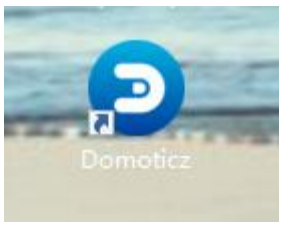
after download,install it



Add Python to environment

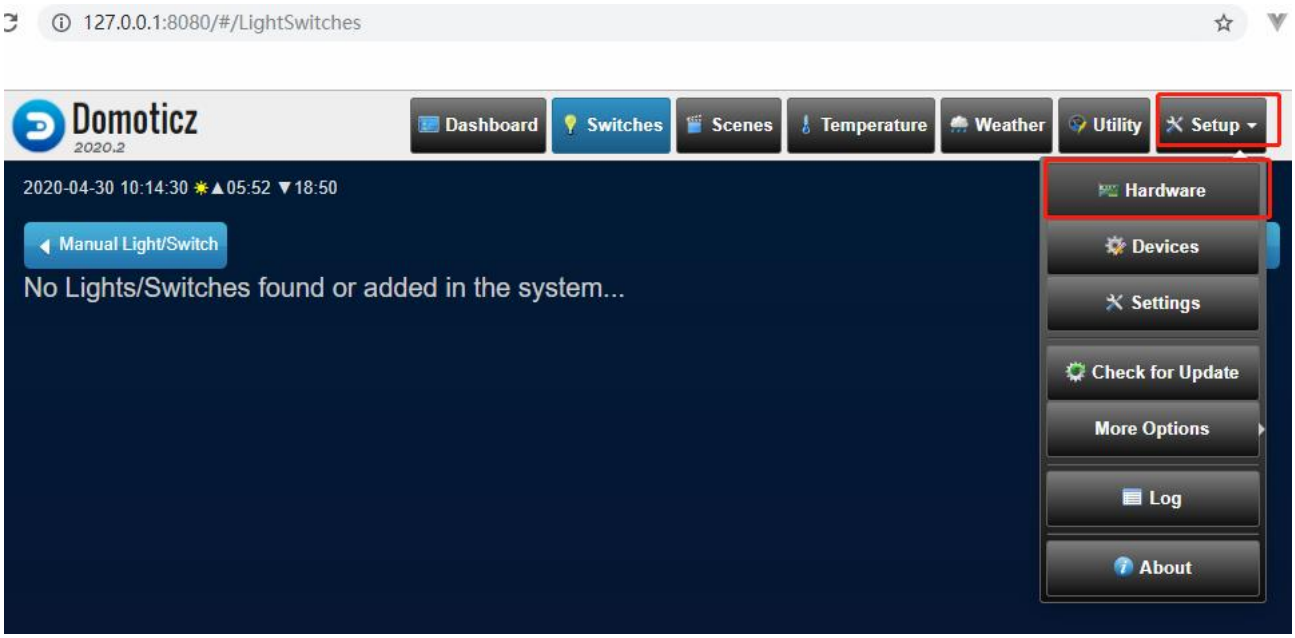


2 Start Domoticz

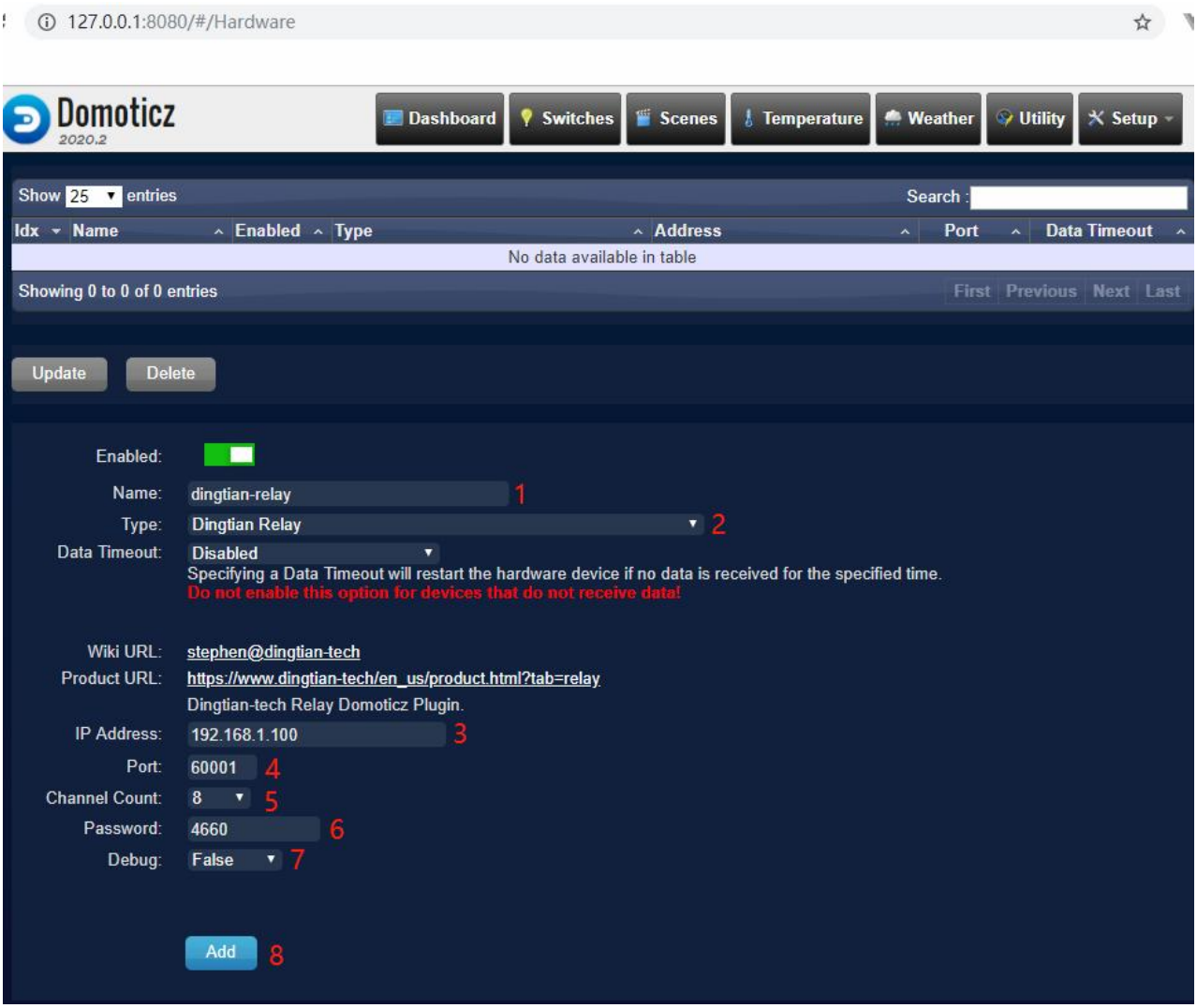


3 Add Dingtian Relay to Domoticz

1 Find Hardware Menu



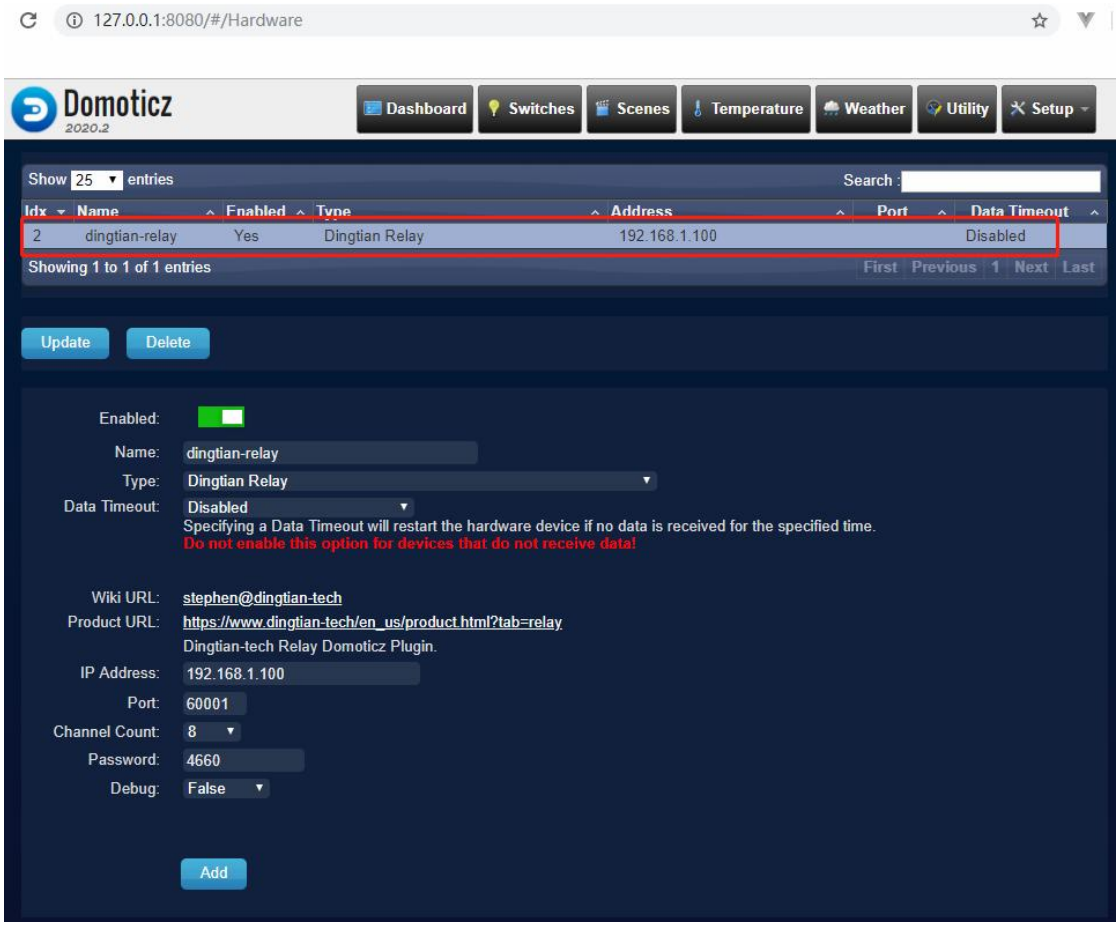
2 Input Dingtian Relay config



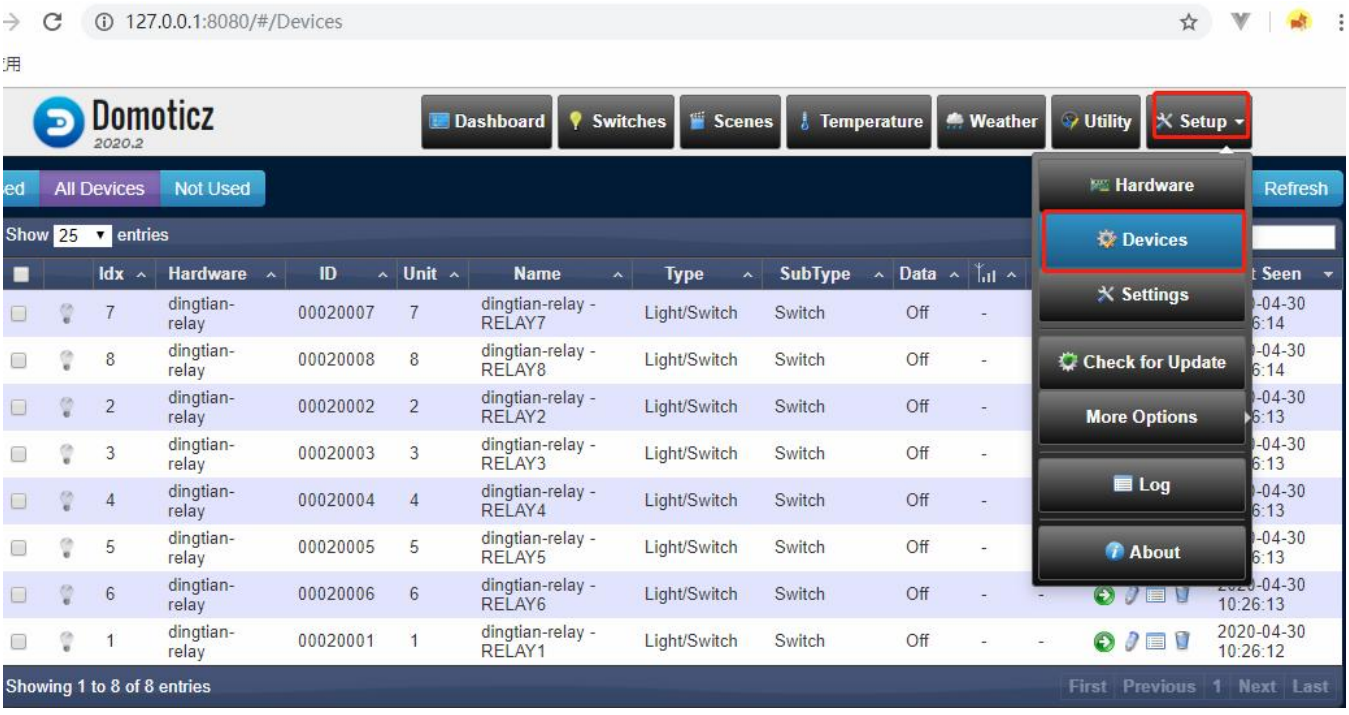
Type,IP Address,Port,Channel Count,Password must right,
Password is 1 config relay board UDP Server,Keep Alive Second and Relay Password

now check parameters is ok,
click "**Add**" to save

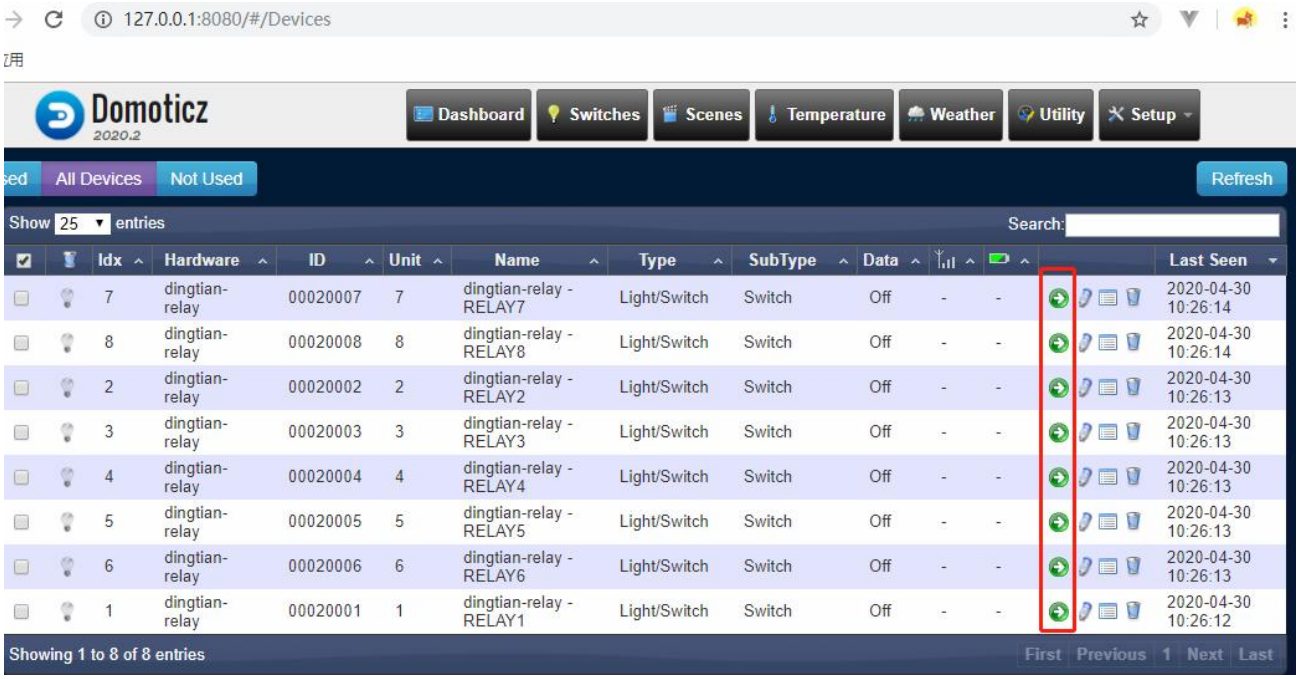
your can find Now Hardware and Relay



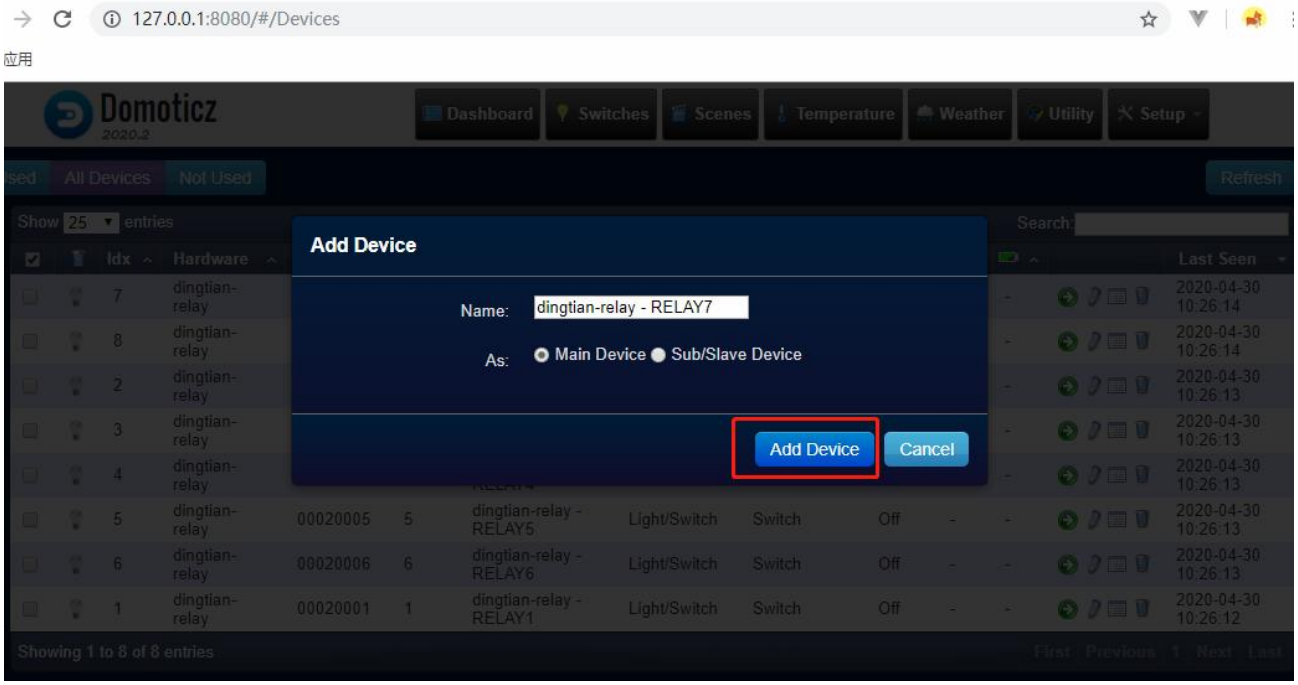
3 Add Relay to Switchs Page



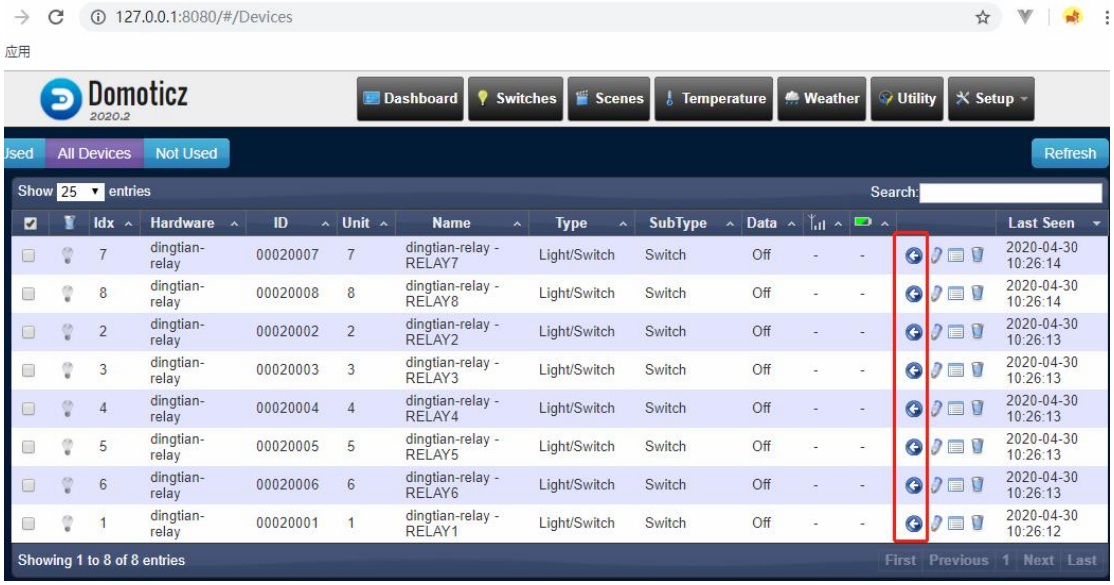
Click Add Device to use Relay



Click Add Device confirm

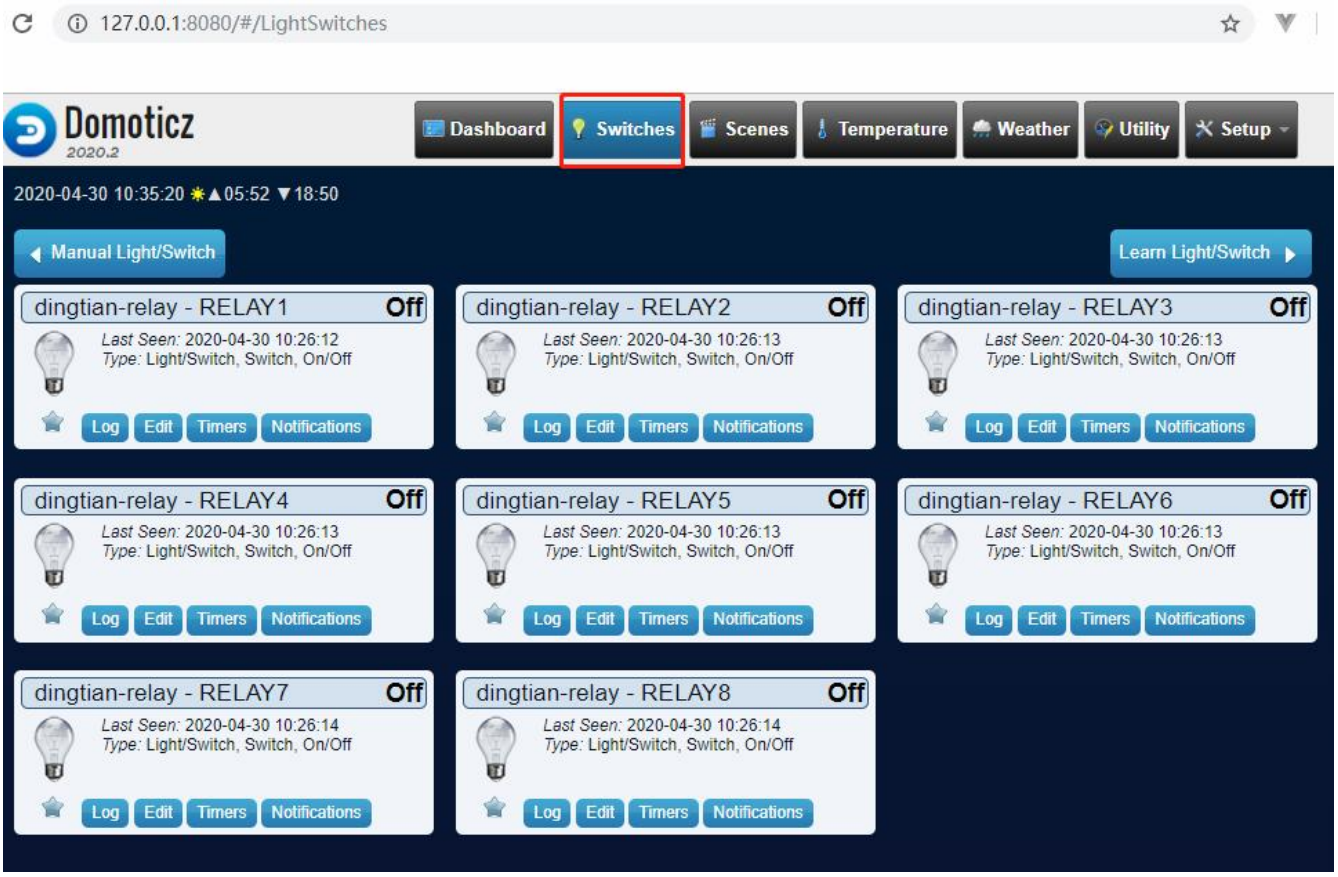


result

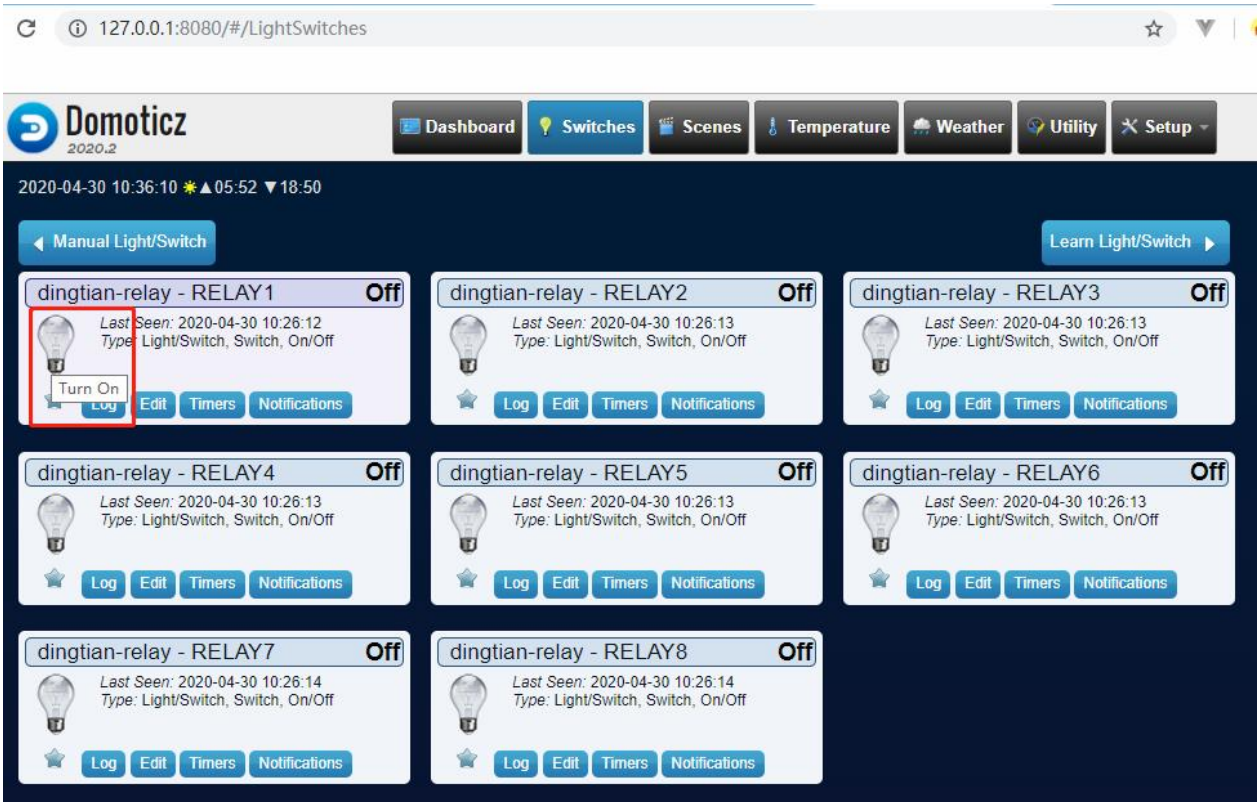


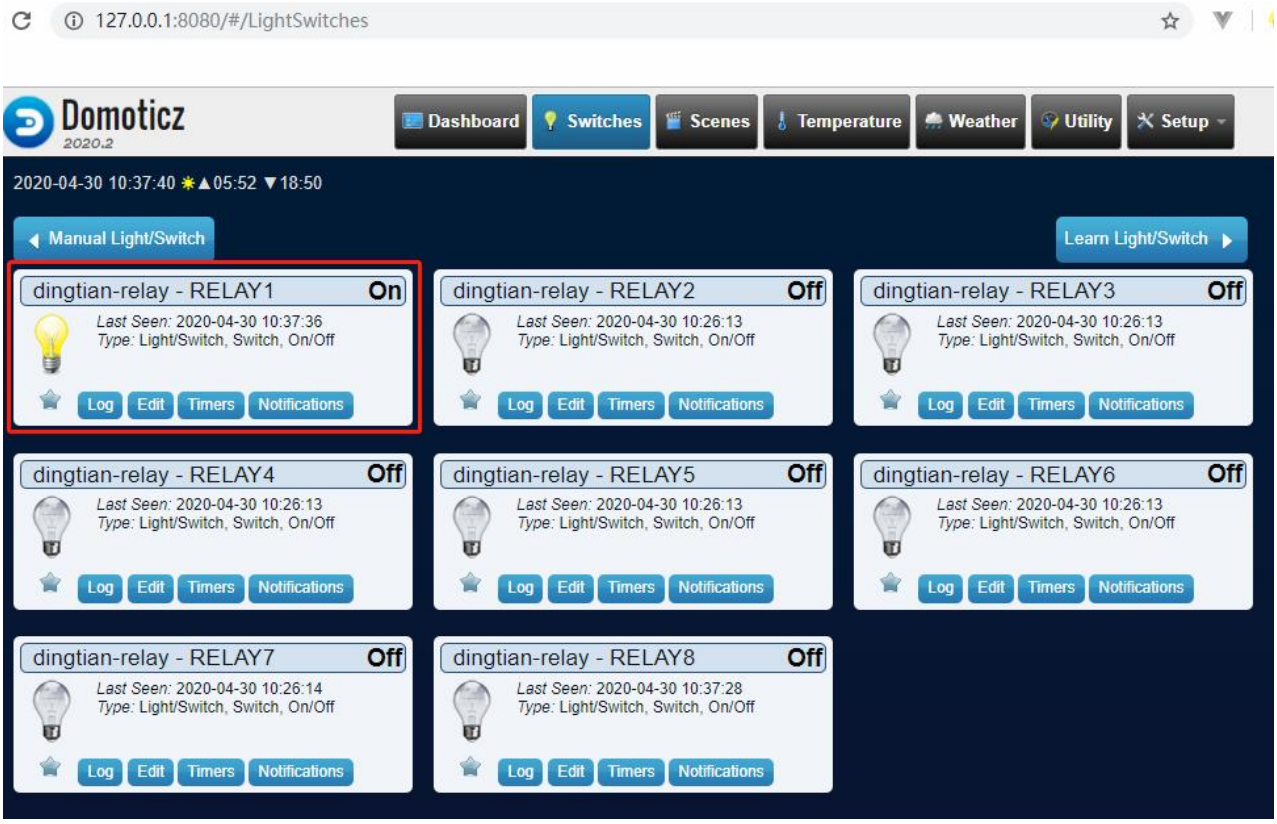
4 Control Dingtian Relay with Domoticz

Switch “Switches” page



Click light icon to control relay

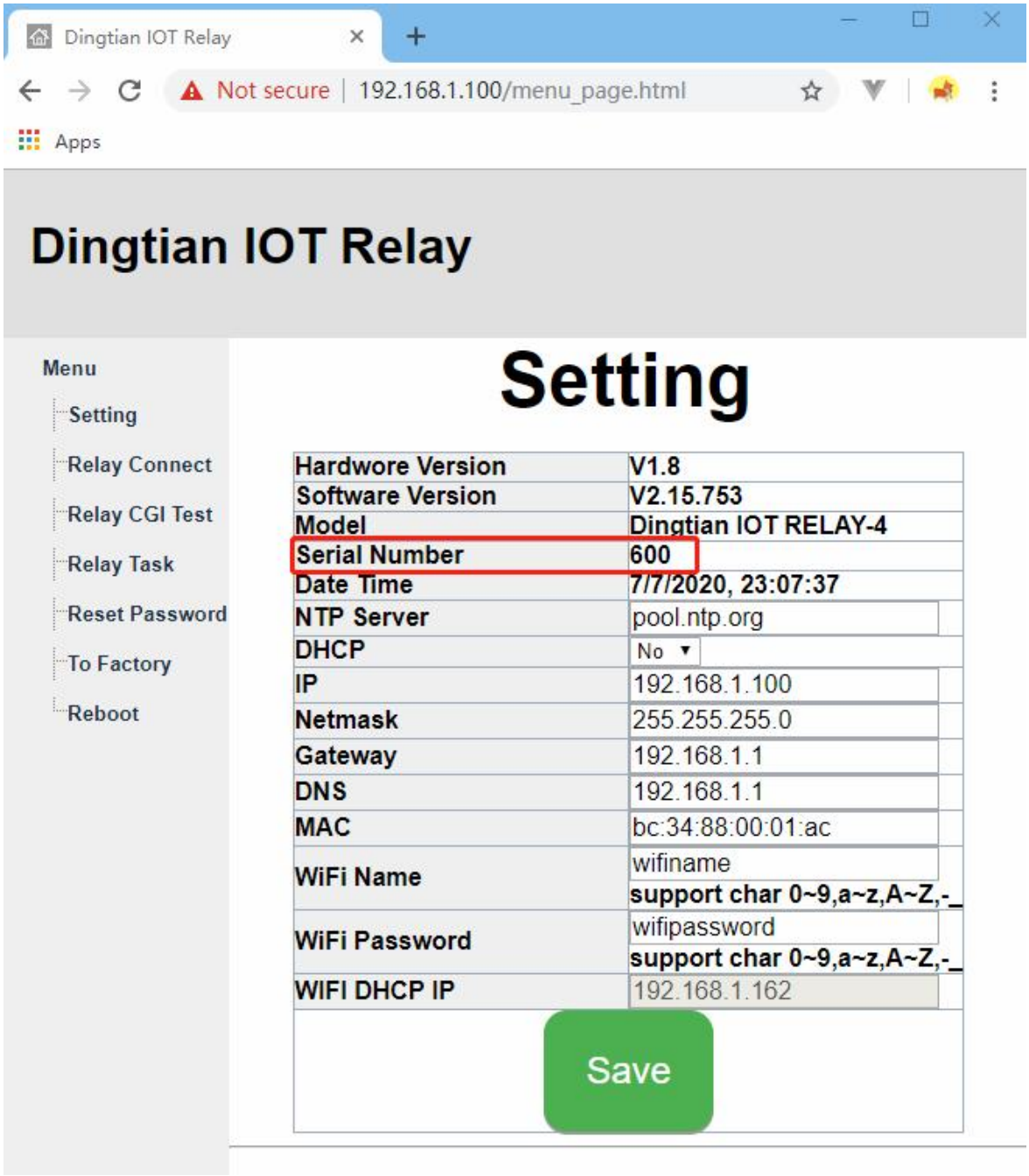




Appendix III How to MQTT

Relay board MQTT Client Id
dingtian-relay+SN

example:
below relay board “Serial Number” is 600
so MQTT client id is:dingtian-relay600



Relay board MQTT Topic to subscribe:

/dingtian/relay/in/control
type:ON/OFF,DELAY,JOGGING
idx:1~8
status:ON,OFF
time: (ON/OFF)0,(DELAY)1~65535second,(JOGGING)1~255*100ms
pass:0~9999

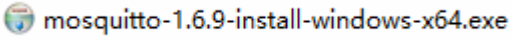
example:
{"type":"ON/OFF",'idx':'1',"status":"ON","time":"0","pass":"0"}
{"type":"DELAY",'idx':'2',"status":"ON","time":"5","pass":"0"}
{"type":"JOGGING",'idx':'3',"status":"ON","time":"5","pass":"0"}
{"type":"ON/OFF",'idx':'4',"status":"OFF","time":"0","pass":"0"}

Relay board MQTT Topic to publish:
/dingtian/relay/out/relay1
/dingtian/relay/out/relay2
/dingtian/relay/out/relay3
/dingtian/relay/out/relay4
/dingtian/relay/out/relay5
/dingtian/relay/out/relay6
/dingtian/relay/out/relay7
/dingtian/relay/out/relay8

idx:1~8
status:ON,OFF

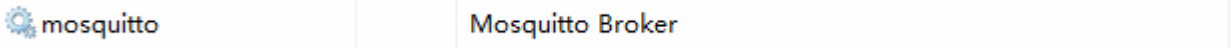
example:
{“idx”:”1”,”status”:”OFF”}

step 1: Install and config Broker



1、config “mosquitto.conf”
bind_address 0.0.0.0
port 1883

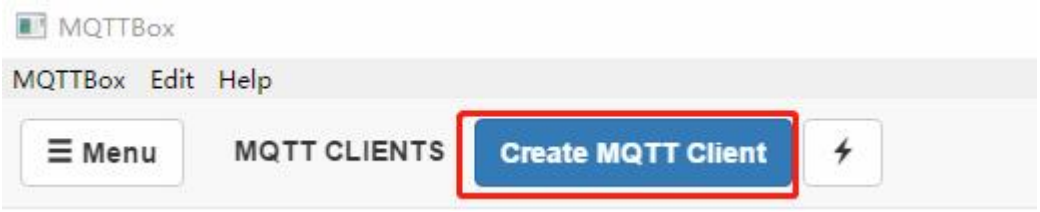
2、start windows Service “mosquitto”



step 2: Install MQTT PC client

client_MQTTBox-win.exe

step 3: MQTTBox Add Client



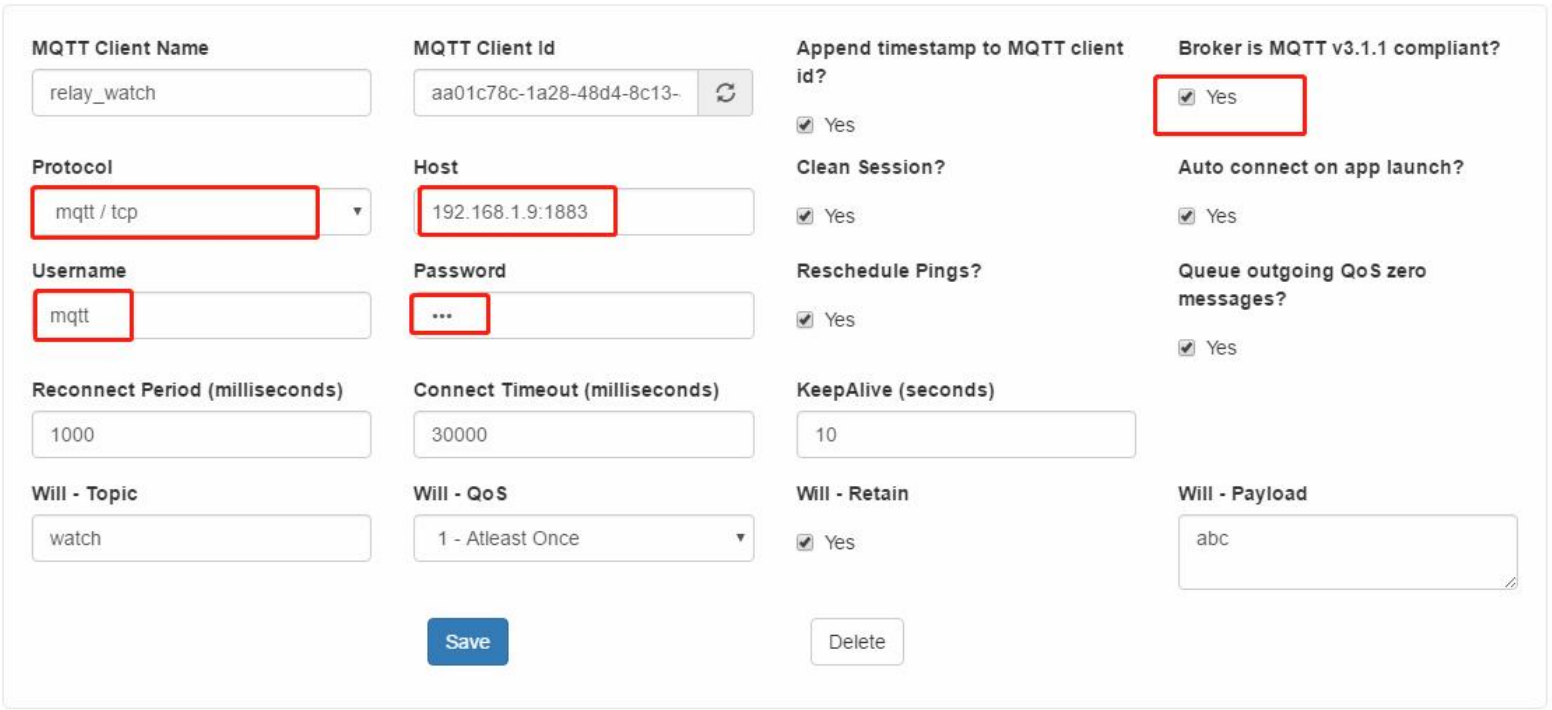
Protocol:mqtt/tcp

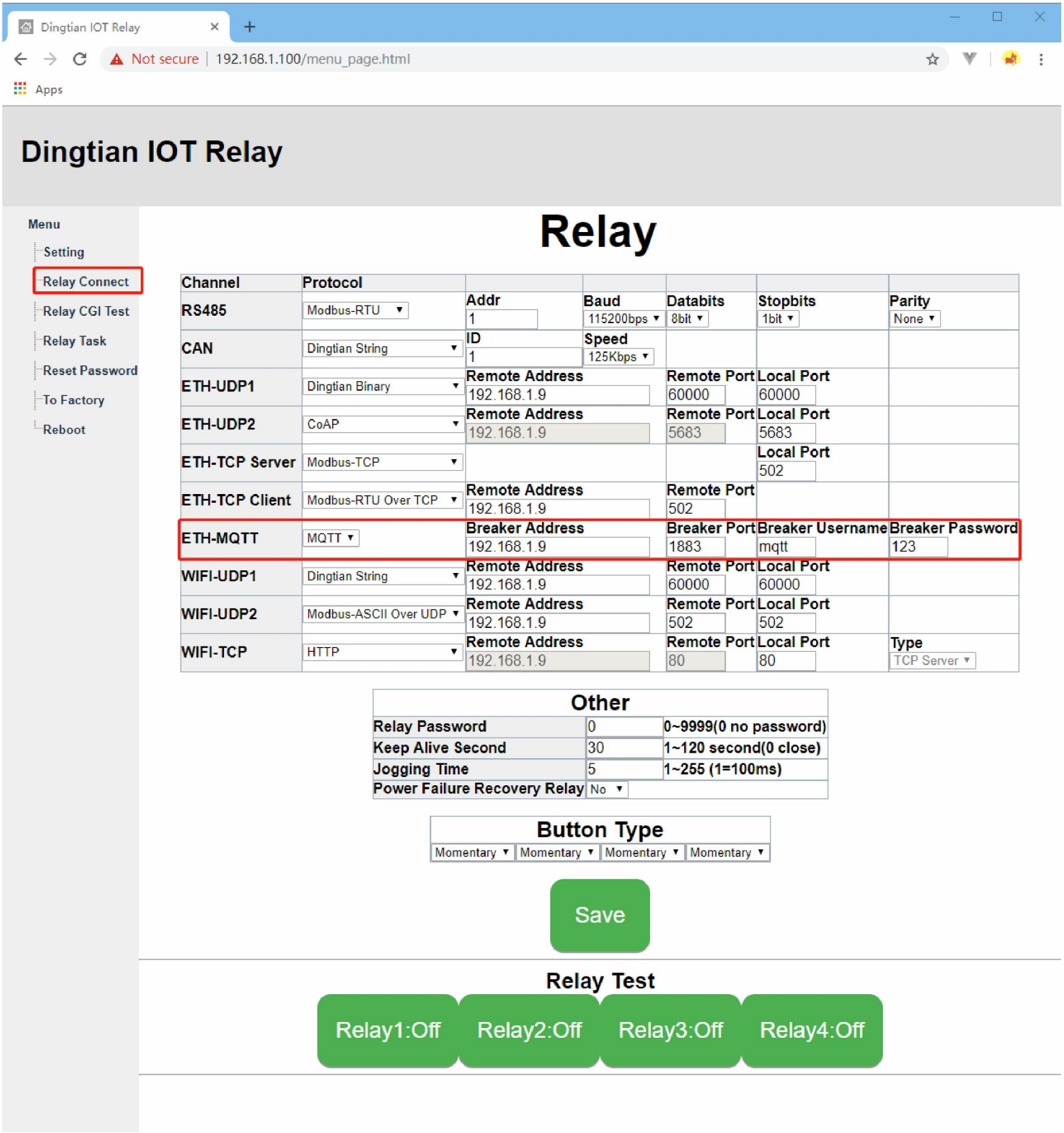
Host:192.168.1.9:1883(Broker server ip and port)

Username:mqtt

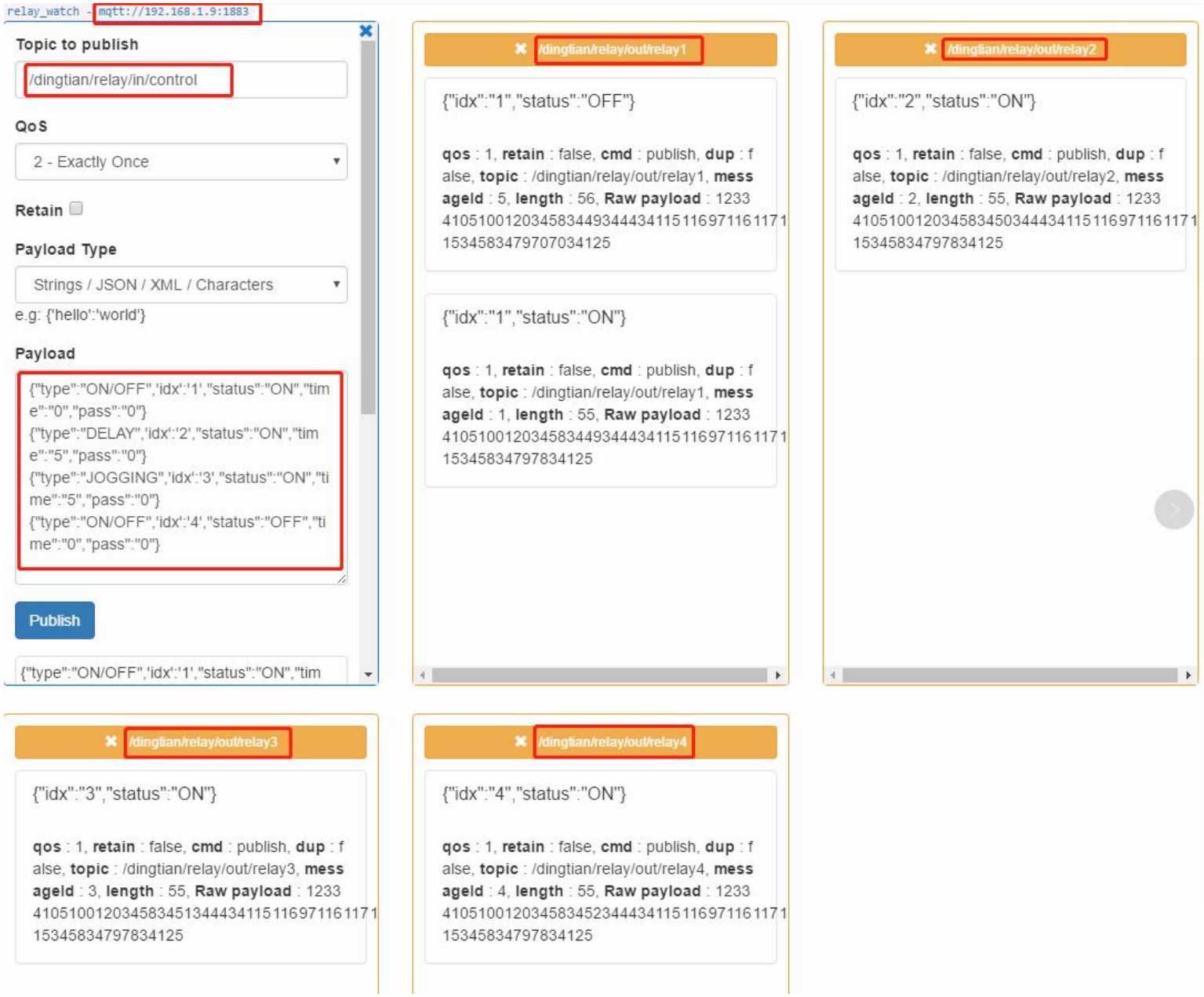
Password:123

Broker MQTT V3.1.1 compliant




Dingtian IOT Relay
Not secure | 192.168.1.100/menu_page.html
Apps
Dingtian IOT Relay
Menu
Setting
Relay Connect
Relay CGI Test
Relay Task
Reset Password
To Factory
Reboot
Relay
Channel
Protocol
RS485
Modbus-RTU
Addr
1
Baud
115200bps
Databits
8bit
Stopbits
1bit
Parity
None
CAN
Dingtian String
ID
1
Speed
125Kbps
ETH-UDP1
Dingtian Binary
Remote Address
192.168.1.9
Remote Port
60000
Local Port
60000
ETH-UDP2
CoAP
Remote Address
192.168.1.9
Remote Port
5683
Local Port
5683
ETH-TCP Server
Modbus-TCP
Local Port
502
ETH-TCP Client
Modbus-RTU Over TCP
Remote Address
192.168.1.9
Remote Port
502
ETH-MQTT
MQTT
Breaker Address
192.168.1.9
Breaker Port
1883
Breaker Username
mqtt
Breaker Password
123
WIFI-UDP1
Dingtian String
Remote Address
192.168.1.9
Remote Port
60000
Local Port
60000
WIFI-UDP2
Modbus-ASCII Over UDP
Remote Address
192.168.1.9
Remote Port
502
Local Port
502
WIFI-TCP
HTTP
Remote Address
192.168.1.9
Remote Port
80
Local Port
80
Type
TCP Server
Other
Relay Password
0
0~9999(0 no password)
Keep Alive Second
30
1~120 second(0 close)
Jogging Time
5
1~255 (1=100ms)
Power Failure Recovery Relay
No
Button Type
Momentary
Momentary
Momentary
Momentary
Save
Relay Test
Relay1:Off
Relay2:Off
Relay3:Off
Relay4:Off

step 4: MQTTBox Publish topic to relay board and subcribe topic



Appendix IV How to CoAP

you need linux system

step 1: compile libcoap

git clone --recurse-submodules https://github.com/obgm/libcoap
./autogen.sh
./configure --disable-manpages --enable-examples --enable-tests
make

step 2: CoAP Get relay status

./coap-client -m get coap://192.168.1.100/dingtian-relay?r1
./coap-client -m get coap://192.168.1.100/dingtian-relay?r2
./coap-client -m get coap://192.168.1.100/dingtian-relay?r3
./coap-client -m get coap://192.168.1.100/dingtian-relay?r4
./coap-client -m get coap://192.168.1.100/dingtian-relay?r5
./coap-client -m get coap://192.168.1.100/dingtian-relay?r6
./coap-client -m get coap://192.168.1.100/dingtian-relay?r7
./coap-client -m get coap://192.168.1.100/dingtian-relay?r8

step 3: CoAP Control relay(simple)

./coap-client -e "1" -m put coap://192.168.1.100/dingtian/r1 # relay1 ON
./coap-client -e "0" -m put coap://192.168.1.100/dingtian/r1 # relay1 OFF
./coap-client -e "1" -m put coap://192.168.1.100/dingtian/r2 # relay2 ON
./coap-client -e "0" -m put coap://192.168.1.100/dingtian/r2 # relay2 OFF
./coap-client -e "1" -m put coap://192.168.1.100/dingtian/r3 # relay3 ON
./coap-client -e "0" -m put coap://192.168.1.100/dingtian/r3 # relay3 OFF
./coap-client -e "1" -m put coap://192.168.1.100/dingtian/r4 # relay4 ON
./coap-client -e "0" -m put coap://192.168.1.100/dingtian/r4 # relay4 OFF
./coap-client -e "1" -m put coap://192.168.1.100/dingtian/r5 # relay5 ON
./coap-client -e "0" -m put coap://192.168.1.100/dingtian/r5 # relay5 OFF
./coap-client -e "1" -m put coap://192.168.1.100/dingtian/r6 # relay6 ON
./coap-client -e "0" -m put coap://192.168.1.100/dingtian/r6 # relay6 OFF
./coap-client -e "1" -m put coap://192.168.1.100/dingtian/r7 # relay7 ON
./coap-client -e "0" -m put coap://192.168.1.100/dingtian/r7 # relay7 OFF
./coap-client -e "1" -m put coap://192.168.1.100/dingtian/r8 # relay8 ON
./coap-client -e "0" -m put coap://192.168.1.100/dingtian/r8 # relay8 OFF

step 3: CoAP Control relay

format:
status:type:time:password
status:0,1

type:ON/OFF,DELAY,JOGGING
time:(ON/OFF)0,(DELAY)1~65535second,(JOGGING)1~255*100ms
password:0~9999

example:
1:ON/OFF:0:4660
status:1
type:ON/OFF
time:0
password:4660

ON/OFF example:

```
./coap-client -e "1:ON/OFF:0:4660" -m put coap://192.168.1.100/dingtian/r1
./coap-client -e "1:ON/OFF:0:4660" -m put coap://192.168.1.100/dingtian/r2
./coap-client -e "1:ON/OFF:0:4660" -m put coap://192.168.1.100/dingtian/r3
./coap-client -e "1:ON/OFF:0:4660" -m put coap://192.168.1.100/dingtian/r4
./coap-client -e "1:ON/OFF:0:4660" -m put coap://192.168.1.100/dingtian/r5
./coap-client -e "1:ON/OFF:0:4660" -m put coap://192.168.1.100/dingtian/r6
./coap-client -e "1:ON/OFF:0:4660" -m put coap://192.168.1.100/dingtian/r7
./coap-client -e "1:ON/OFF:0:4660" -m put coap://192.168.1.100/dingtian/r8
./coap-client -e "0:ON/OFF:0:4660" -m put coap://192.168.1.100/dingtian/r1
./coap-client -e "0:ON/OFF:0:4660" -m put coap://192.168.1.100/dingtian/r2
./coap-client -e "0:ON/OFF:0:4660" -m put coap://192.168.1.100/dingtian/r3
./coap-client -e "0:ON/OFF:0:4660" -m put coap://192.168.1.100/dingtian/r4
./coap-client -e "0:ON/OFF:0:4660" -m put coap://192.168.1.100/dingtian/r5
./coap-client -e "0:ON/OFF:0:4660" -m put coap://192.168.1.100/dingtian/r6
./coap-client -e "0:ON/OFF:0:4660" -m put coap://192.168.1.100/dingtian/r7
./coap-client -e "0:ON/OFF:0:4660" -m put coap://192.168.1.100/dingtian/r8
```

DELAY example:

```
./coap-client -e "1:DELAY:5:4660" -m put coap://192.168.1.100/dingtian/r1
./coap-client -e "1:DELAY:5:4660" -m put coap://192.168.1.100/dingtian/r2
./coap-client -e "1:DELAY:5:4660" -m put coap://192.168.1.100/dingtian/r3
./coap-client -e "1:DELAY:5:4660" -m put coap://192.168.1.100/dingtian/r4
./coap-client -e "1:DELAY:5:4660" -m put coap://192.168.1.100/dingtian/r5
./coap-client -e "1:DELAY:5:4660" -m put coap://192.168.1.100/dingtian/r6
./coap-client -e "1:DELAY:5:4660" -m put coap://192.168.1.100/dingtian/r7
./coap-client -e "1:DELAY:5:4660" -m put coap://192.168.1.100/dingtian/r8
./coap-client -e "0:DELAY:5:4660" -m put coap://192.168.1.100/dingtian/r1
./coap-client -e "0:DELAY:5:4660" -m put coap://192.168.1.100/dingtian/r2
./coap-client -e "0:DELAY:5:4660" -m put coap://192.168.1.100/dingtian/r3
./coap-client -e "0:DELAY:5:4660" -m put coap://192.168.1.100/dingtian/r4
./coap-client -e "0:DELAY:5:4660" -m put coap://192.168.1.100/dingtian/r5
./coap-client -e "0:DELAY:5:4660" -m put coap://192.168.1.100/dingtian/r6
```

./coap-client -e "0:DELAY:5:4660" -m put coap://192.168.1.100/dingtian/r7
./coap-client -e "0:DELAY:5:4660" -m put coap://192.168.1.100/dingtian/r8

JOGGING example:
./coap-client -e "1:JOGGING:5:4660" -m put coap://192.168.1.100/dingtian/r1
./coap-client -e "1:JOGGING:5:4660" -m put coap://192.168.1.100/dingtian/r2
./coap-client -e "1:JOGGING:5:4660" -m put coap://192.168.1.100/dingtian/r3
./coap-client -e "1:JOGGING:5:4660" -m put coap://192.168.1.100/dingtian/r4
./coap-client -e "1:JOGGING:5:4660" -m put coap://192.168.1.100/dingtian/r5
./coap-client -e "1:JOGGING:5:4660" -m put coap://192.168.1.100/dingtian/r6
./coap-client -e "1:JOGGING:5:4660" -m put coap://192.168.1.100/dingtian/r7
./coap-client -e "1:JOGGING:5:4660" -m put coap://192.168.1.100/dingtian/r8
./coap-client -e "0:JOGGING:5:4660" -m put coap://192.168.1.100/dingtian/r1
./coap-client -e "0:JOGGING:5:4660" -m put coap://192.168.1.100/dingtian/r2
./coap-client -e "0:JOGGING:5:4660" -m put coap://192.168.1.100/dingtian/r3
./coap-client -e "0:JOGGING:5:4660" -m put coap://192.168.1.100/dingtian/r4
./coap-client -e "0:JOGGING:5:4660" -m put coap://192.168.1.100/dingtian/r5
./coap-client -e "0:JOGGING:5:4660" -m put coap://192.168.1.100/dingtian/r6
./coap-client -e "0:JOGGING:5:4660" -m put coap://192.168.1.100/dingtian/r7
./coap-client -e "0:JOGGING:5:4660" -m put coap://192.168.1.100/dingtian/r8