

## Smart Thermostat App



The SmartPID Controller is a black rectangular device with a digital display showing '5:00', 'T1 24.6°C', 'SP 55.0°C', and 'PID-mode'. It features several buttons: 'SET', 'S/S', and a USB port.



MQTT

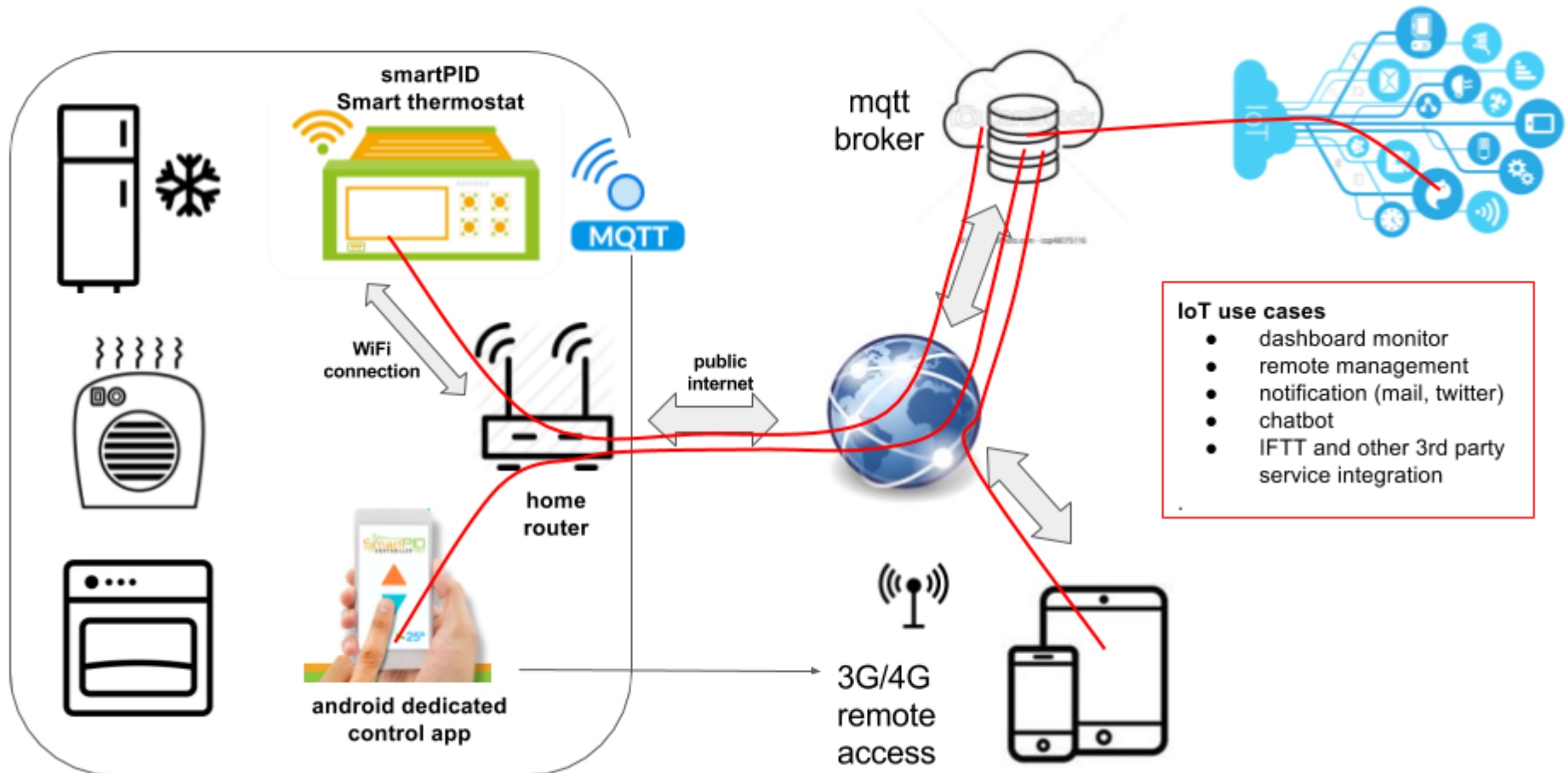


The app interface on a smartphone shows the SmartPID logo and a temperature setpoint of 25°C. A hand is shown interacting with the app.



A circular diagram illustrating the heating and cooling cycle. The top half is labeled 'HEATING' and the bottom half 'COOLING'. The heating side features a sun icon and a boiler icon. The cooling side features a fan icon and a snowflake icon. A central hand holds a smartphone displaying the app interface.

# SmartPID smart thermostat MQTT server architecture



# SmartPID smart thermostat WiFi config and remote server connection

In order to connect SmartPID controller to home WiFi network and to remote server and to the smartphone app 3 basic operation are need

SmartPID account creation (sign-up via app)



WiFi configuration and provisioning



SmartPID pairing with the app using serial number

# Credentials need to configure all the elements

Following data are need to coplete the 3 steps

Make sure to write correctly (pay attention to capital letters, unwanted space, O and 0 etc..)

WiFi home network

- SSID (WiFi network name)
- Password

SmartPIDa account

- Login
- Password

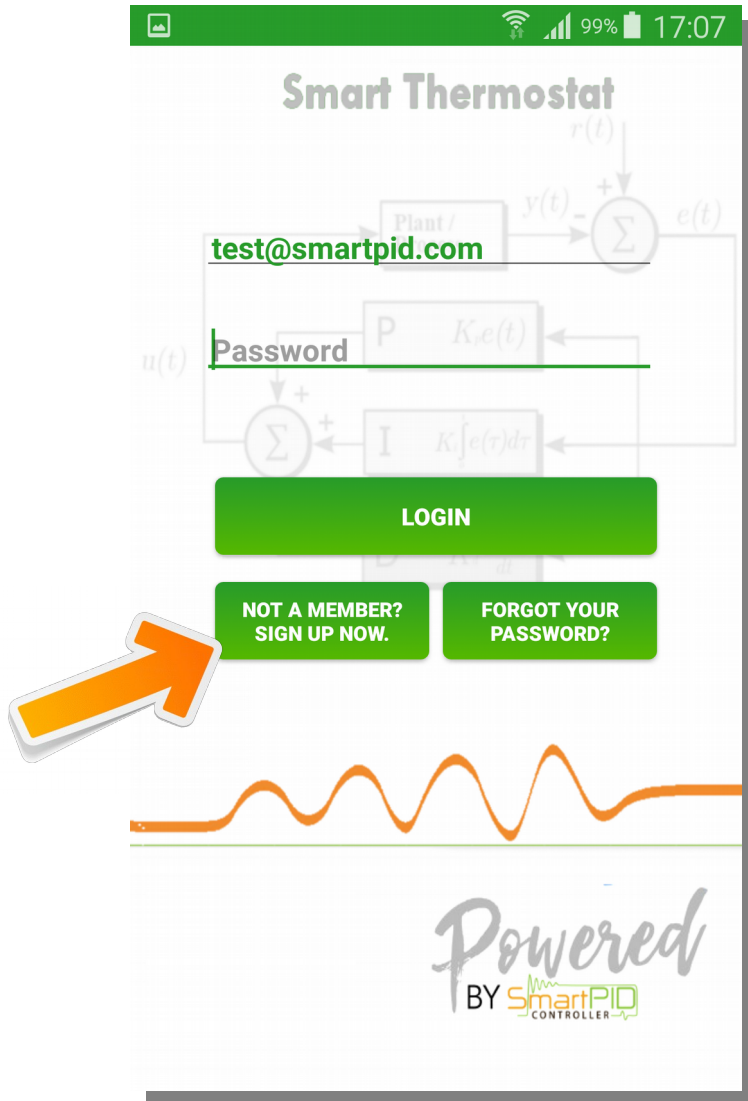
SmartPID serial number

- 14 char unique string [visible on boot screen]



**step**1

SmartPID account creation



# step1.1

1. Start SmartPID smart thermostat app
2. Perform Sing-up process by pressing  
**NOT A MEMBER? SIGN UP NOW**



# step1.2

Smart Thermostat

test@smartpid.com

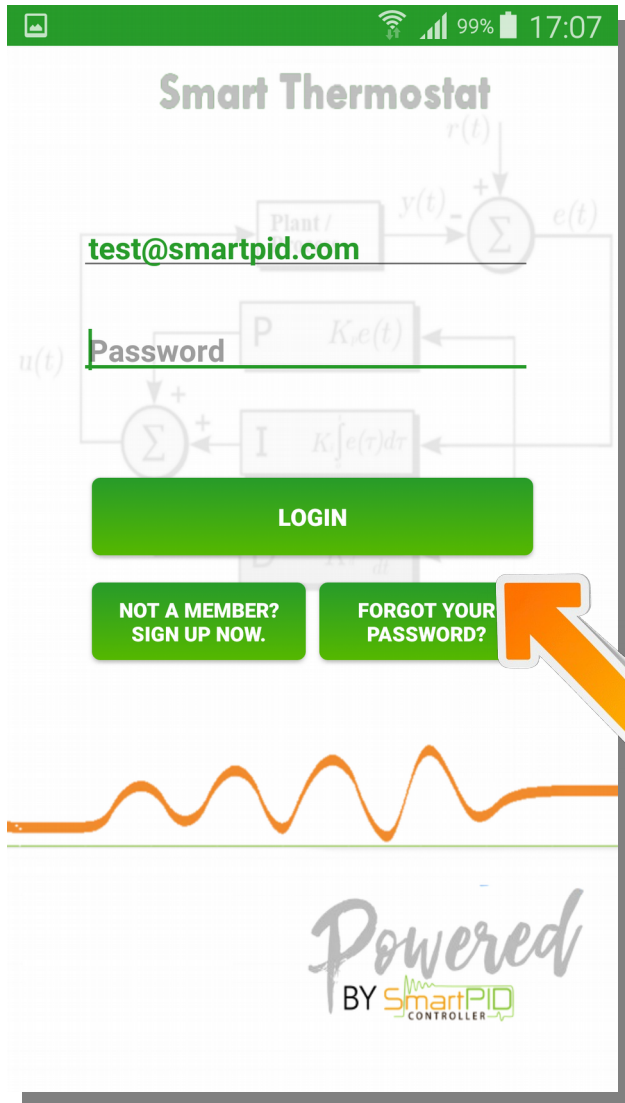
Password

REGISTER

ALREADY REGISTERED! LOGIN ME.

Powered BY SmartPID CONTROLLER

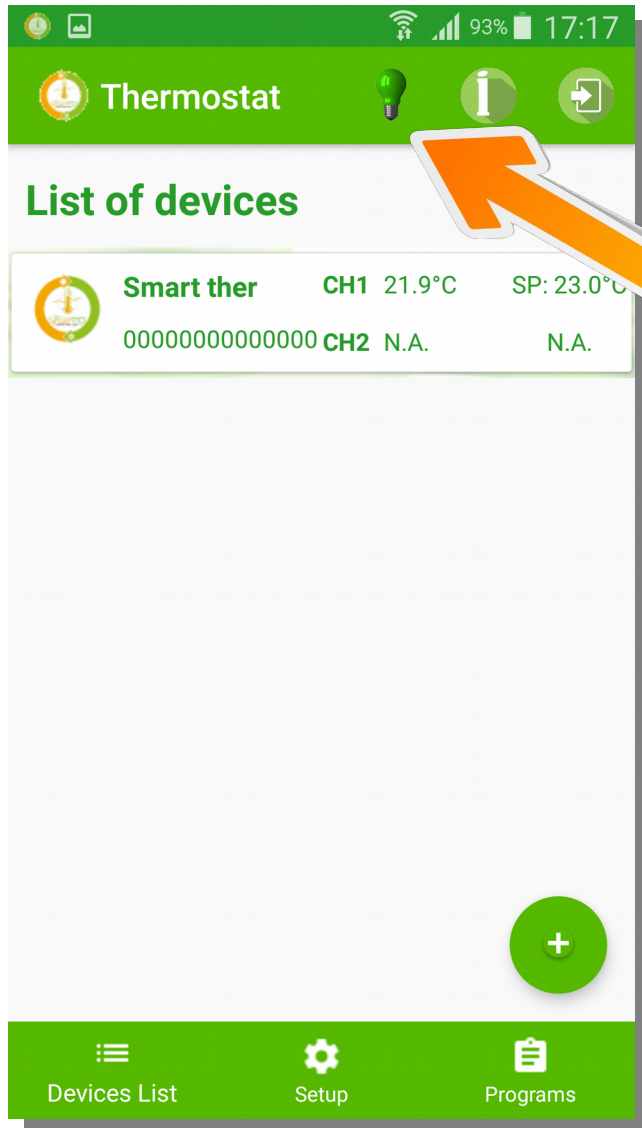
1. Insert valid email (need for recovery process)
2. Insert a personal password
3. Note the credentials for step 2



# step1.3

1. Login using credentials created
2. Press **LOGIN** to connect to the server





# step1.4

1. Verify the connection status through the green light on the top bar
2. In case of red light check again credentials and internet connectivity



# step 2

SmartPID WiFi config & provisioning



# step2.1

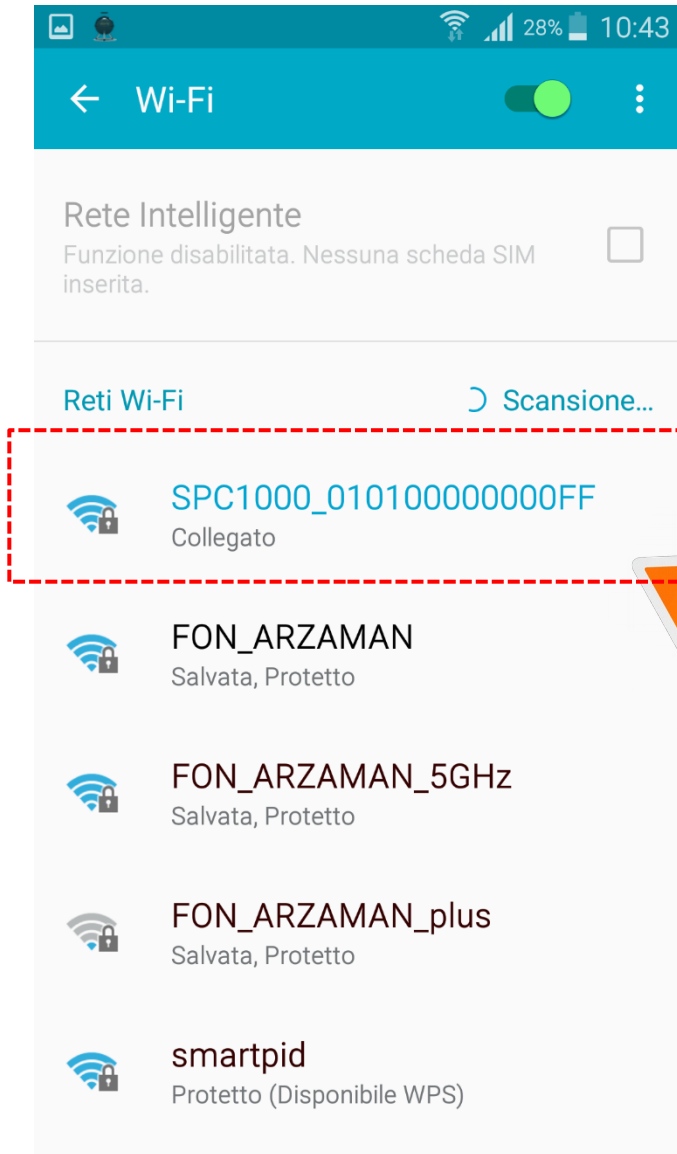
```
Connectivity/log
      Logging
    [  Wi-Fi  ]
      MQTT Broker
```

```
Wi-Fi
Wi-Fi M  Off      AP
SSID     Client
Passwor  AP
Server  Auto      80
Status
```

1. Navigate to configuration connectivity/log configuration menu
2. Configure “Wi-Fi mode” in AP mode

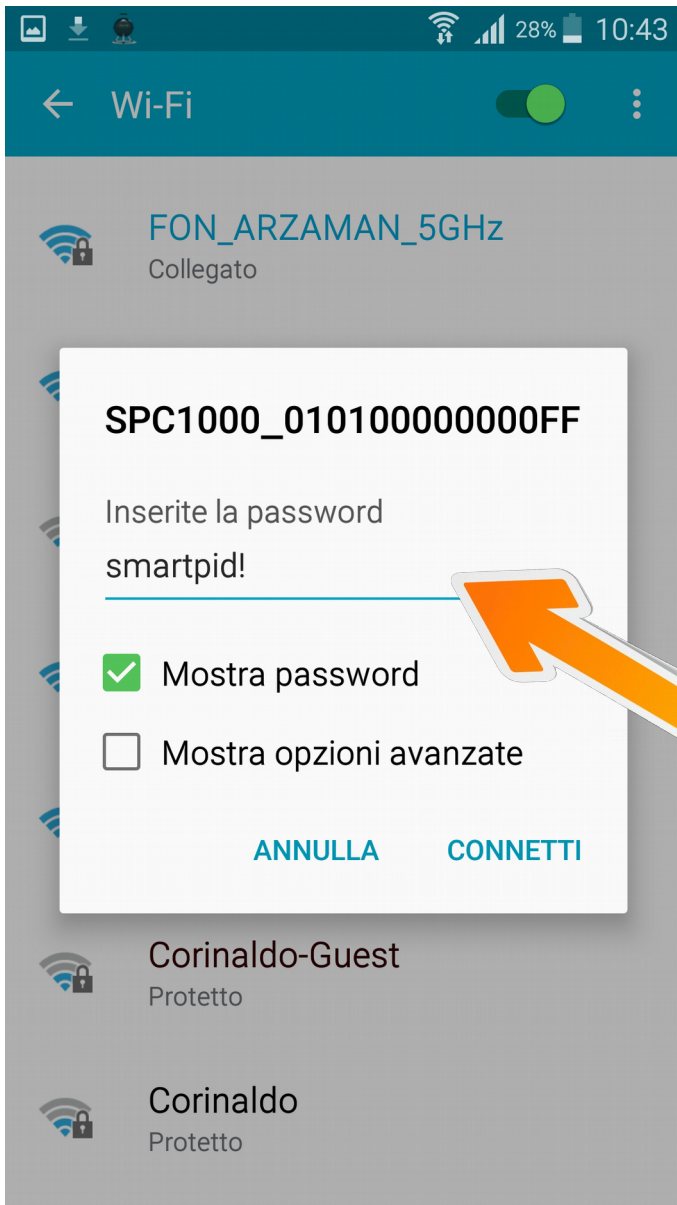


# step 2.2



1. From smartphone , table or laptop scan the WiFi network
2. Highlight the SPC1000\_XXXXXXXXX
3. Select the special network and connect

**NOTE** it's strongly suggested to disconnect smartphone from 3g/4g connection during the whole operation



# step 2.3

1. Connect to WiFi network  
SPC1000\_XXXXXXXXXXXXXXXXXX
2. Default password is **smartpid!**

192.168.4.1

### SmartPID Wi-Fi Configuration

SSID:  
smartpid

Password:  
smartpid01

MQTT Broker IP Address:  
18.196.43.33

MQTT Broker Port:  
1883

MQTT User Name:  
test@smartpid.com

MQTT Password:

Local Server Port:  
80

Serial Baud Rate:  
57600



# step 2.4

1. Open any browser (chrome or other)
2. Input in the address bar following address  
**192.168.4.1**
3. You will be redirect to a landing page with a text form

SSID:

smartpid

Password:

smartpid01

MQTT Broker IP Address:

18.196.43.33

MQTT Broker Port:

1883

MQTT User Name:

test@smartpid.com

MQTT Password:

Local Server Port:

80

Serial Baud Rate:

57600

Save



# step 2.5

Username e Password  
WiFi home network

Server IP address and port  
**18.196.43.33**

SmartPID account  
username and PWD  
Created in step 1

Save data  
SmartPID will "reboot"





# step 2.6

```
Wi-Fi
Wi-Fi M Off Client
SSID Client
Passwor AP
Server Auto
Status
```

```
Wi-Fi
Wi-Fi Mode Client
SSID
Password
Server Port
Status
```

```
Wi-Fi Status
Connected
IP 123.123.123.123
SSID
123456789012345678901
23456789012
```

1. Go back to SmartPID menu WiFi/MQTT
2. Configure "Wi-Fi mode" as Client
3. Verify SSID e PWD of your home WiFi network
4. Verify "connected" connected status and assignment from your home router of a valid IP address





# step 2.7

```
MQTT Broker
IP      160.153.225.184
Port    1883
User Name
Password
Client Id
```

```
Logging
Log Mo  OFF      WiFi
Sample  WiFi      5
Status  USB
        WiFi+USB
```

```
Logging Status
EEPROM Mem      Empty
MQTT Connection OK
```

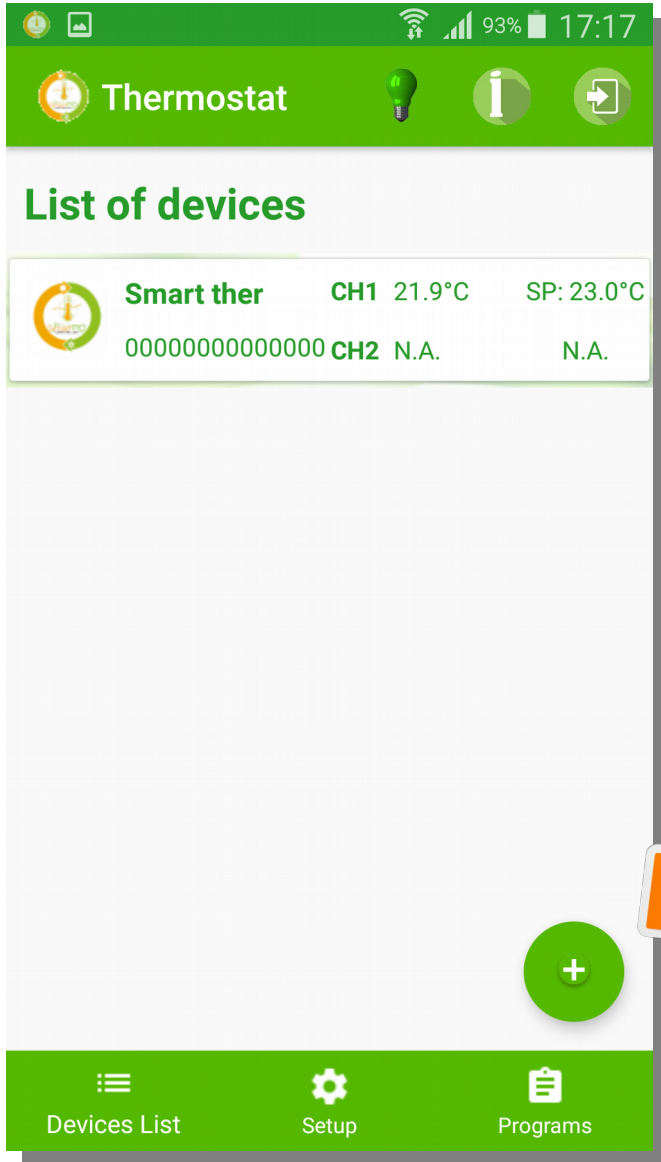


1. Go to MQTT broker configuration menu and verify the credentials stored
2. Go logging menu and configure "Log Mode" via WiFi
3. Configure logging interval (Min Sample Time 5s)
4. Verify MQTT connections status |



# step 3

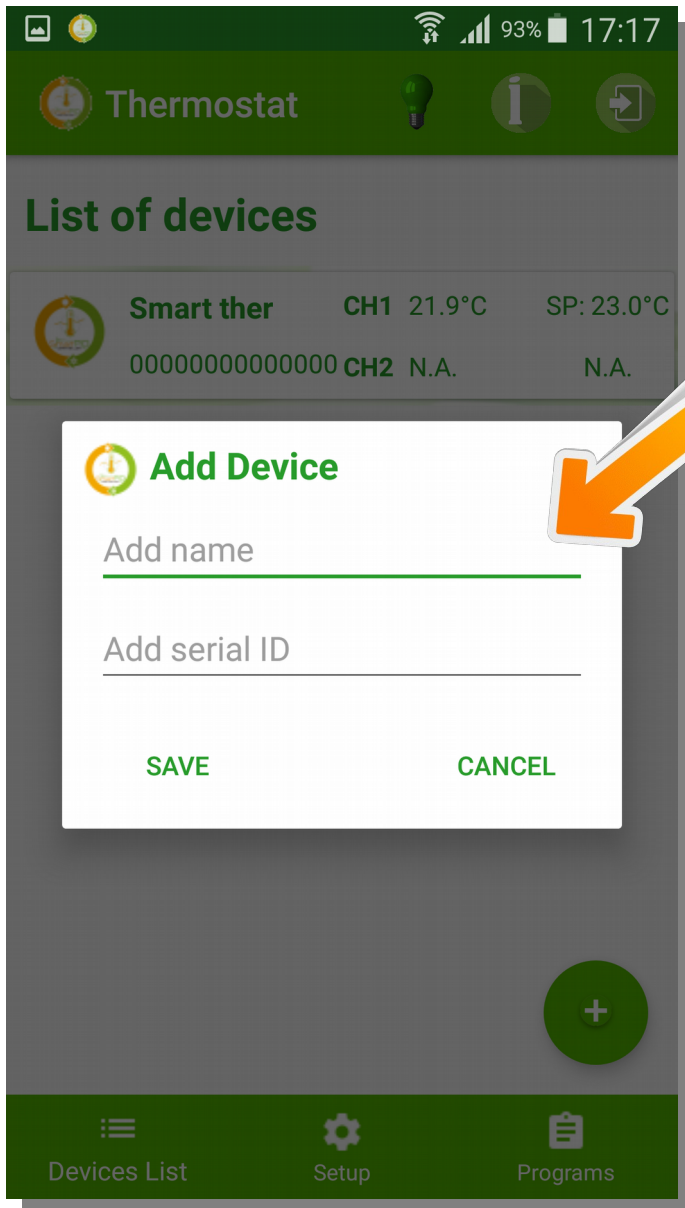
SmartPID pairing with the app via  
serial number



# step3.1

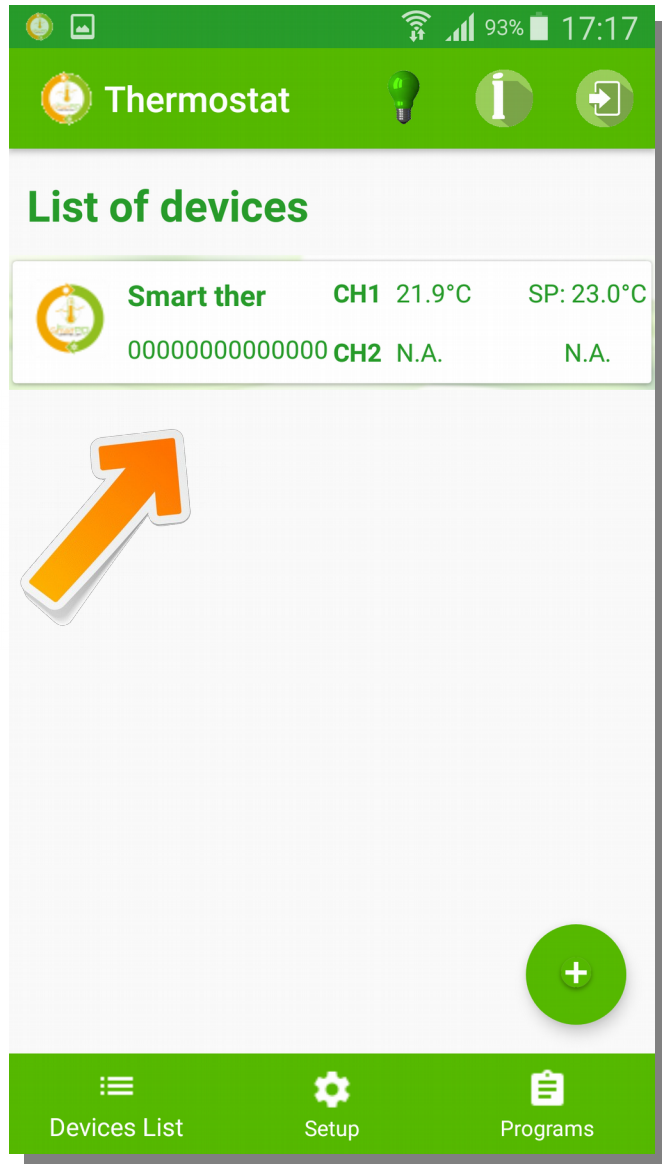
1. You can add any number of remote controlled smartPID adding to your device list.
2. Press button to add a new one





# step 3.2

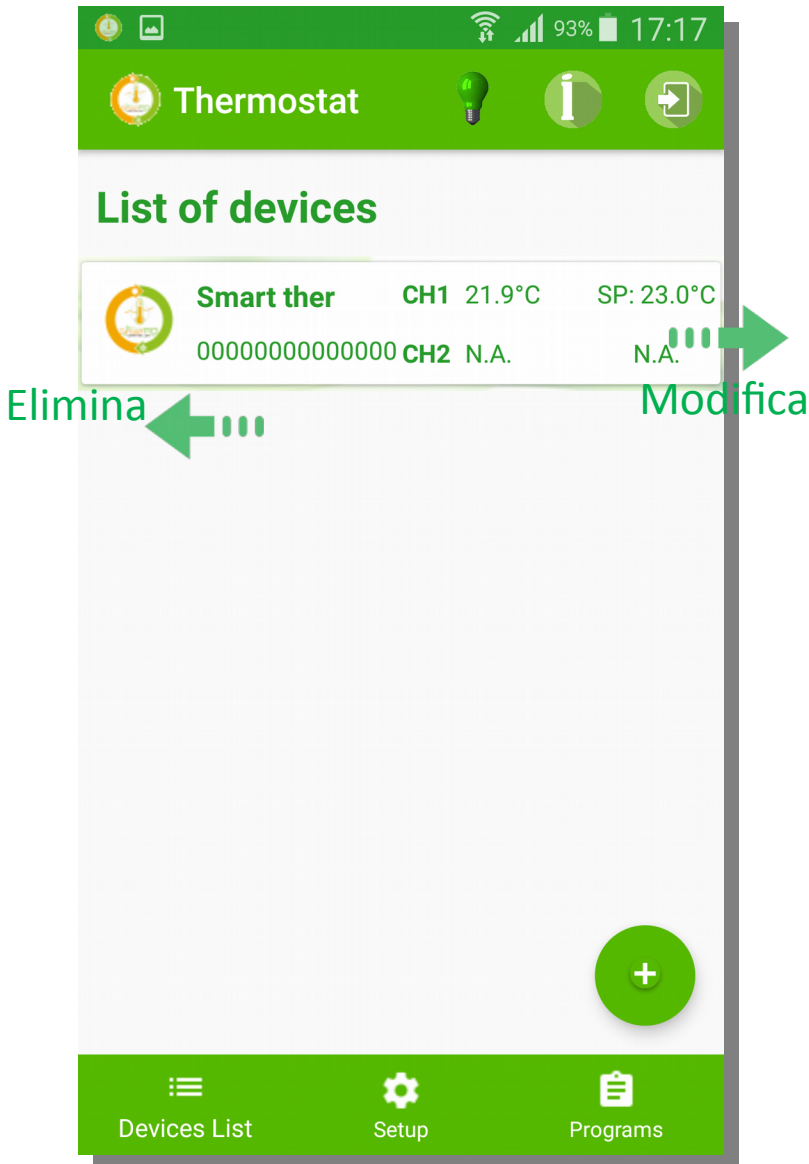
1. Insert a mnemonic name
2. Insert serial number string that is displayed during boot sequence (14 chars)
3. Press **SAVE**



1. The new smartPID controller has been added



# step 3.4



1. It's possible to remove a device sliding left
2. It's possible to modify information sliding right