

# User and Installation Manual

V2.2

May, 2019

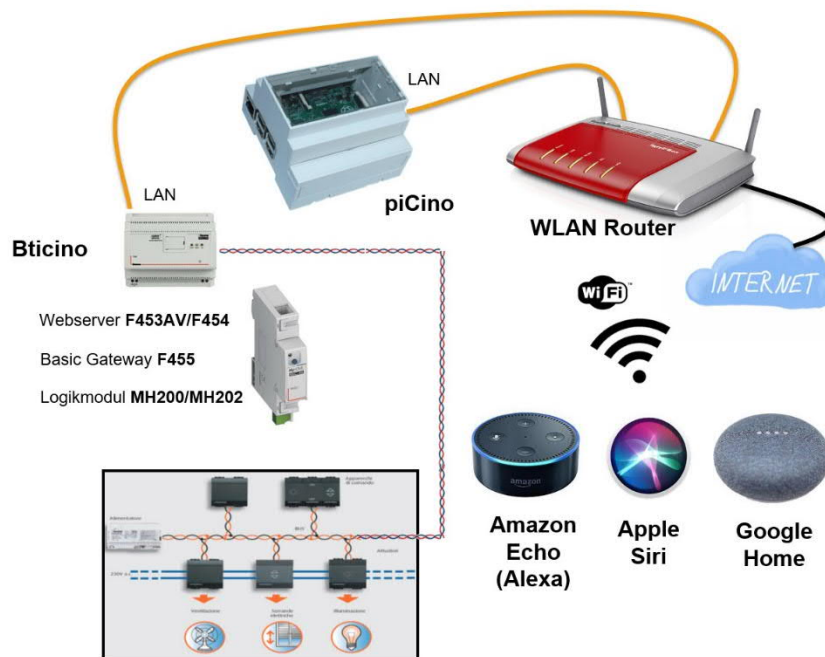


Check [www.picino.net](http://www.picino.net) for (german) video tutorials

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## 1. OVERVIEW



The piCino has to be connected to local LAN and communicates over the local network with the Bticino webserver/gateway.

Voice control devices like Alexa or Siri are communicating by Wifi. Commands are not sent directly within the network but via cloud-service. That's why an internet connection is required for the system to run.

### 1.1 Supported Bticino devices

- Webserver F453AV and F454
- Basic Gateway F455
- Logic-Module MH200, MH200N and MH202

### 1.2 Supported functions

Function	Alexa voice control	Alexa App	Siri voice control	Apple Home App	Google voice control	Google Home App	openHAB App	Webbrowser
Switch lighting	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Dim lighting	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Automation up/down	Yes	Yes	Yes <sup>(1)</sup>	Yes <sup>(1)</sup>	Yes <sup>(1)</sup>	Yes <sup>(1)</sup>	Yes	Yes
Automation general stop	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Individual Scenes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Remote control outside LAN	Yes	Yes	Yes <sup>(2)</sup>	Yes <sup>(2)</sup>	Yes	Yes	Yes	Yes <sup>(3)</sup>

(1) To use automation commands with Siri / HomeKit, you have to use "turn on" (up) and "turn off" (down).

(2) To remote control the piCino outside LAN with Siri / HomeKit, you have to install an AppleTV / HomePod / iPad as home server.

(3) To remote control the piCino outside LAN with a webbrowser, you have to create a VPN.

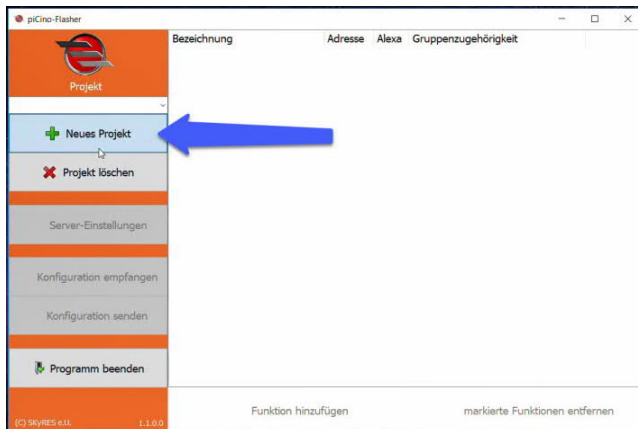
## 2. INSTALL PICINO SERVER

### 2.1 Connect power and network

Connect the piCino first with the LAN-cable and then with the supplied power adapter (min. 2A and 5V).

### 2.2 Configuration (Software piCino-Builder)

#### 2.2.1 Create new project



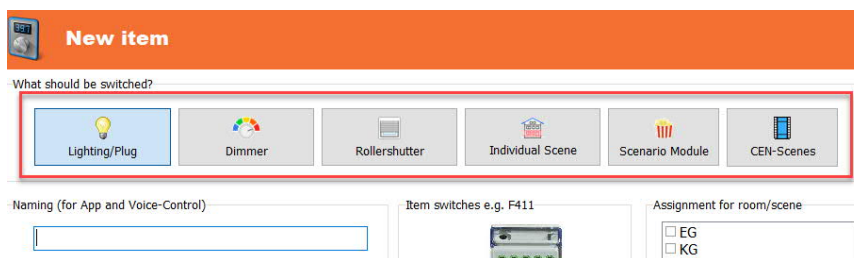
Input name of the project (same name will be used within the openHAB-App as heading) and serial number of the piCino (found on front sticker). Via serial number the IP address of the piCino can be found automatically.

#### 2.2.2 Add items

In the following screen you can create your items which should be controllable by the piCino (via voice control, app, ...).

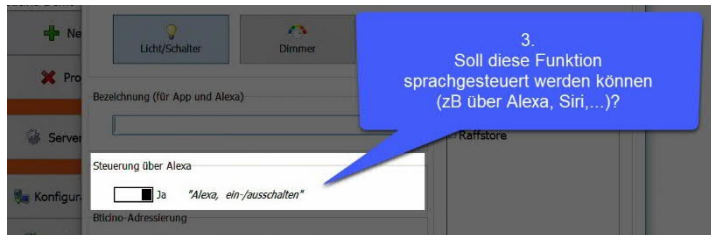
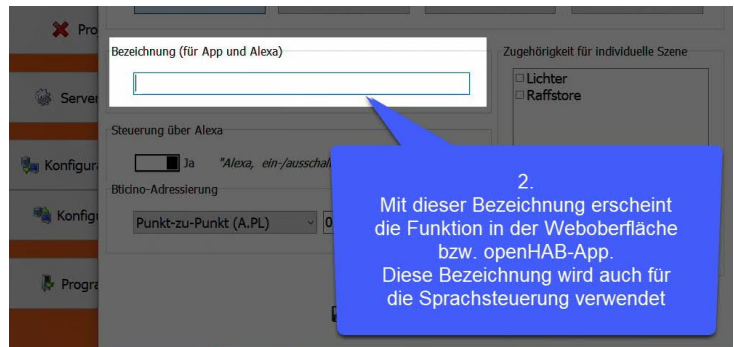


Select what kind of item should be controlled:



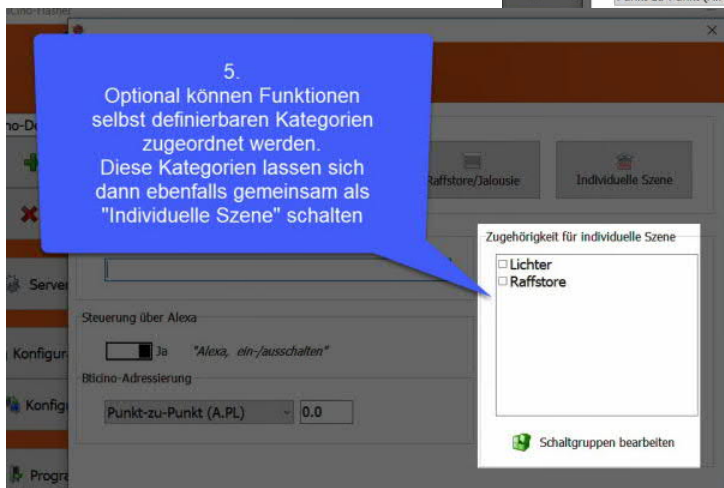
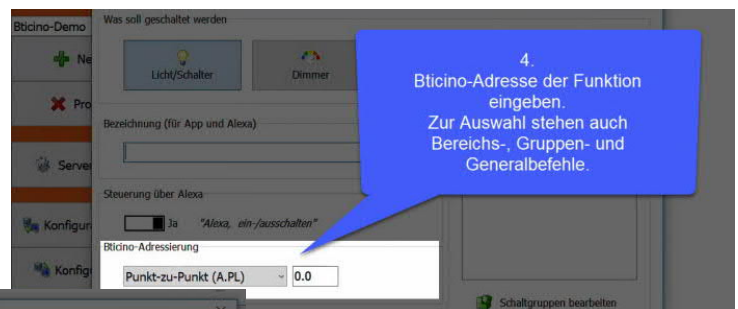
- Light/Switch
- Dimmer
- Automation
- Individual Scenes
- Scenario-Module
- CEN-Commands

Set naming for speech recognition (watch out for correct spelling, otherwise you could have problems with speech recognition). The same naming is used for the item text in the app.



Should voice-control via Alexa be possible or should the item only be controllable via openHAB-App.

Insert address of Bticino actuator. It's possible to use point-to-point-, ambience-, group- and general-addresses (use dropdown-list).



Additionally the item can be assigned to one or more item-groups, which can be individually defined. So, items-groups like „GroundFloor“, „TV“ or „Lights“ can be created and assigned to the item. Of course, many other items could be assigned to the same item-groups.

„individual scene“ for this item-groups. When switching this „individual scene“, all items which are assignend to this item-group will be switched, too. There's the possibility of creating an „individual scene“ with the predefined function „Stop all shutters“, which stops all shutters when scene is switched.



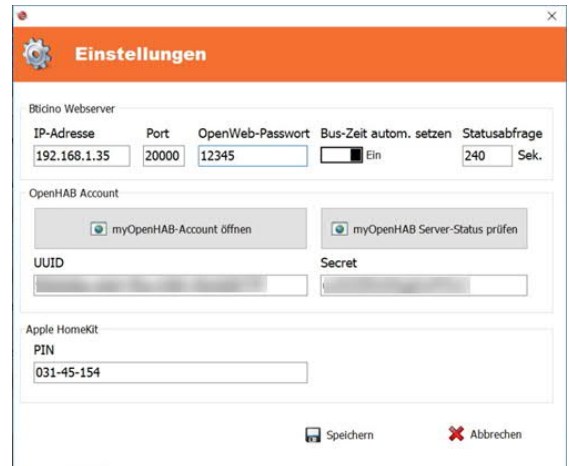
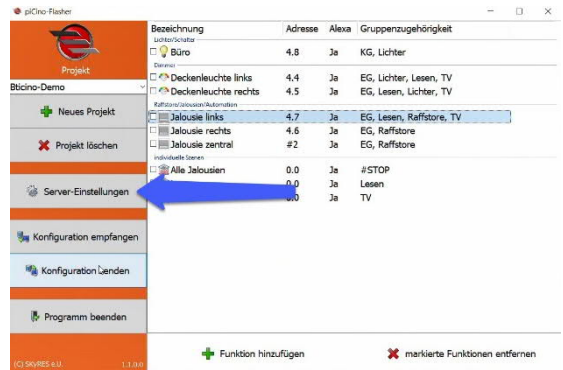
After that, you can create an

### 2.2.3 Server-Settings

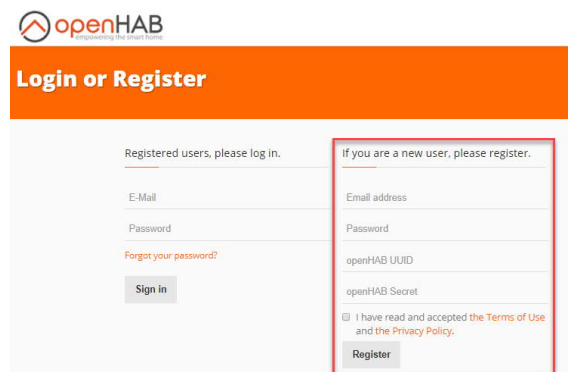
In the server-settings screen you can set the connection-settings to the external services.

There are following sections:

- Bticino-Webserver
  - IP-address, port, password  
Set Bticino-Webserver-Authentication
  - Auto-Set Bus-Time  
If option is activated, the piCino is retrieving every hour the actual datetime via Internet and send this datetime to the Bticino bus. If set, all other timer on the bus have to be set to „slave“
  - State check  
Set time in seconds, how often the piCino should check the state of all Bticino actuators to update the state in apps.  
Note: State check is blocking the Bticino bus for about 2 seconds, that's why state check value should be set not to low. Otherwise delays when switching actuators are possible.

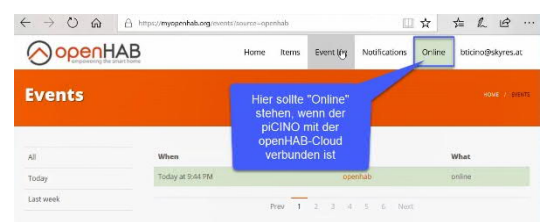


- OpenHAB Account  
To remote control the piCino outside LAN or voice control via Alexa, you have to create an openHAB account. The Button „myOpenHAB-Account“ opens the webbrowser with an link to myOpenHAB where you can register a new account.  
For registration you need:
  - an Email-address
  - own Password
  - an UUID (this id you have to copy from the settings-window of piCinoBuilder and paste it into the website)
  - a Secret (copy/paste from piCinoBuilder, too)



For every new project in the Builder, an unique UUID and Secret is generated, which is not editable. The piCino communicates via UUID/Secret with the openHAB-Cloud to send commands from Alexa to the piCino.

Email and Passwort is required to login into myOpenHAB and to check the online-state of the piCino or activate the Alexa skill.

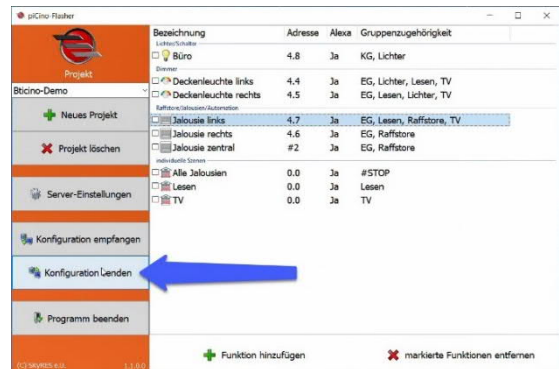


- Apple HomeKit  
When using Apple HomeKit with Siri, the first time you have to pair your piCino with HomeKit. For that a pin-code is required, which you can find in the settings-windows, too.

### 2.2.4 Send configuration to piCino

When you finished adding items and configuring your server-settings, then you have to send your configuration to the piCino.

Open „Send configuration“-window and then you can click the „Search“-button. After that, the program is searching for the IP address of the piCino online.



To ensure that the piCino's IP is found, your piCino has to be connected to the Internet and should be powered for at least 10 minutes. You also can insert the IP-address manually.

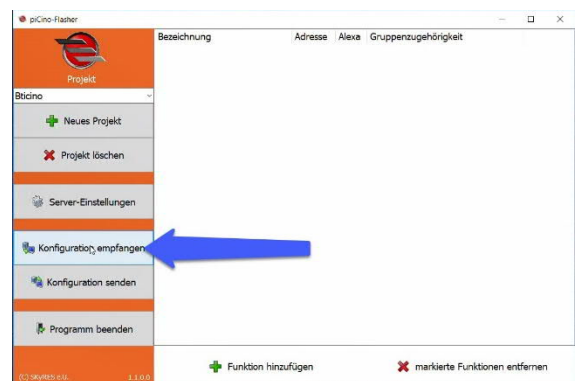
Then you can press „Send“ to transfer the whole configuration to the piCino. After that, the piCino is being rebooted automatically. This takes about 3 minutes.

Note: after adding new items, which you want to voice control via Alexa, you have to let Alexa search for new devices.

### 2.2.5 Receive configuration from piCino

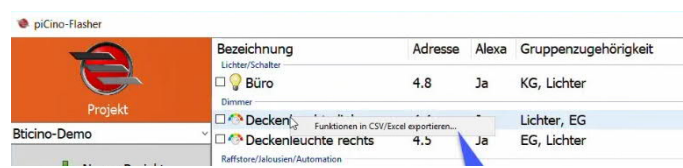
If you loose your Builder-configuration or want to transfer the configuration from another piCino into the Builder, than you can create a new project and press the button „Receive configuration“. All settings and items will be loaded from the connected piCino into the Builder.

Note: you have to be in the same LAN as the piCino.



### 2.2.6 Export items to Excel

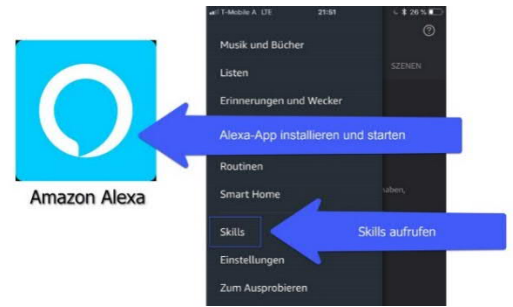
By pressing the right-mouse-button in the items-list, you can export this list into Excel (as csv file).



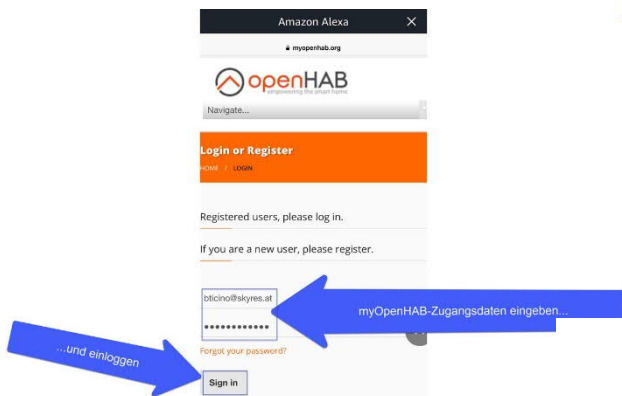
### 3. AMAZON ALEXA (iOS, Android, Windows)

#### 3.1 Connect to piCino

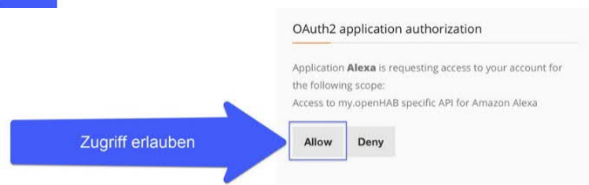
After configuring the piCino, you have to install and start the Alexa app. In the app you have to search for the „openHAB“-skill and activate it.



In the next screen input your myOpenHAB email and password and click „Sign in“.



After that authorize Alexa to access the openHAB cloud by clicking „Allow“.



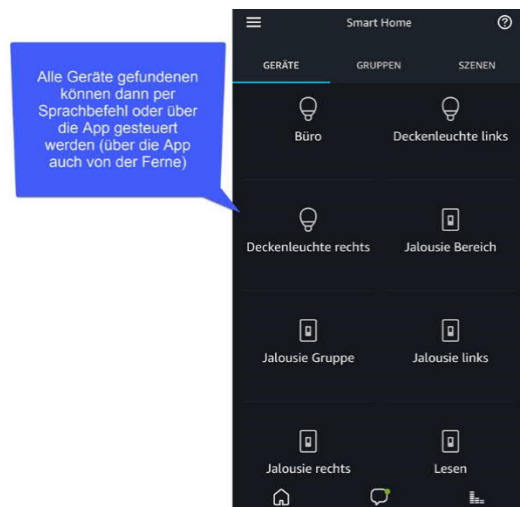
Then select „Discover Devices“ to get all items to Alexa configured by the piCinoBuilder.

If you add new items the next time, don't forget to discover devices again by Alexa.

And if you change an item you have to delete it manually from Alexa before you discover devices again.

#### 3.2 Voice-commands: „Alexa...“

- Find new items
  - ... discover devices
- Lighting / Individual scenes
  - ... turn on/off „Kitchen“ (light)
- Dimmer
  - ... dim the „Kitchen“ (light) to 50%
  - ... turn on/off „Kitchen“ (light)
  - ... increase/decrease „Kitchen“ (light)
- Shutter/Blinds
  - ... set „Kitchen-Rollershutter“ to 0%/100%
  - ... turn on/off „Kitchen-Rollershutter“
  - (... open/close „Kitchen-Rollershutter“)

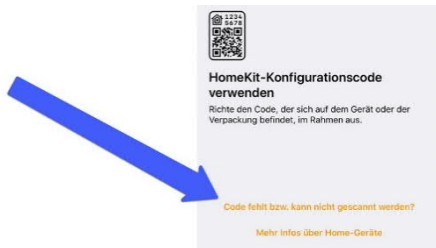




## 4. APPLE HOMEKIT/SIRI (iOS)

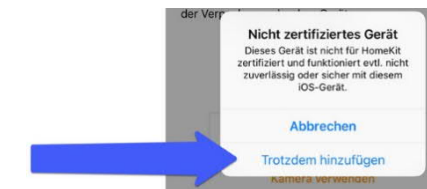
### 4.1 Connect to piCino

After configuring the piCino, on iPhone/iPad start „Home“ App and select „Add accessory“.



Next select „Don't have a Code or can't Scan“.

When the piCino is powered and connected to the network, „openHAB“ should show up. Select „openHAB“.



In the next popup window select to add the accessory and then enter PIN-Code 03145154.



After that, all items will be shown in HomeKit and can assigned to rooms.

### 4.2 Automating HomeKit

Together with Apple-HomeKit the piCino is an real automation device. Want all of your lights to automatically turn off when you leave your house? Or want a scene to automatically run at a certain time or location? After you set up a home hub, you can automate your accessories and scenes to automatically turn on and perform actions. And with iOS 11 and later, you can have your accessories and scenes automatically turn on or off based on who's present in your home and at a certain time.

More information on [Apple-Homepage](#)



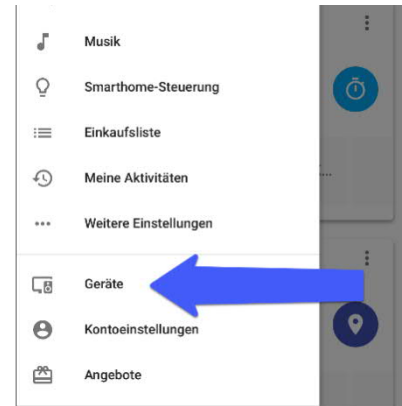
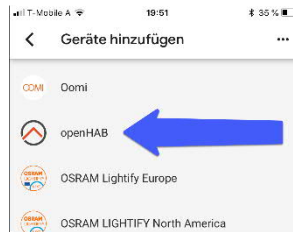
### 4.3 Voice-Commands: „Hey Siri...“

- Lighting / Individual scenes
  - ... turn on/off „Kitchen“ (light)
- Dimmer
  - ... dim the „Kitchen“ (light) to 50%
  - ... turn on/off „Kitchen“ (light)
  - ... increase/decrease „Kitchen“ (light)

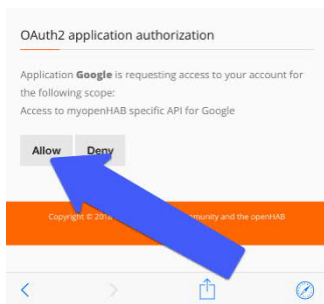
## 5. GOOGLE HOME (iOS, Android, Windows)

### 5.1 Verbinden mit dem piCino

After configuring your picino, install and start the „Google Home“ App. After that open menu item „Devices“ and search and select „openHAB“.



In the following screen enter your openHAB-Account-data (Email / Password) and click „Sign in“.



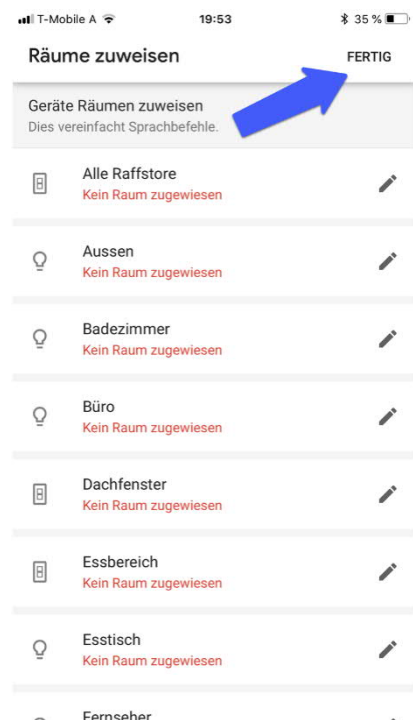
In the next screen „Allow“ Google access to openHAB.



After that your items should show up in Google home. You can give your items Alias-names in Google Home to overwrite your preconfigured

piCino naming.

If you add or change a function with the piCino Builder after adding them to Google Home, you have to remove and re-add openHAB to Google Home to show up your new items!



### 5.2 Voice-commands: „Hey Google...“

- Lighting / Individual scenes  
... turn on/off „Kitchen“ (light)
- Dimmer  
... dim the „Kitchen“ (light) to 50%  
... turn on/off „Kitchen“ (light)  
... increase/decrease „Kitchen“ (light)
- Shutter/Blinds  
... set „Kitchen-Rollershutter“ to 0%/100%

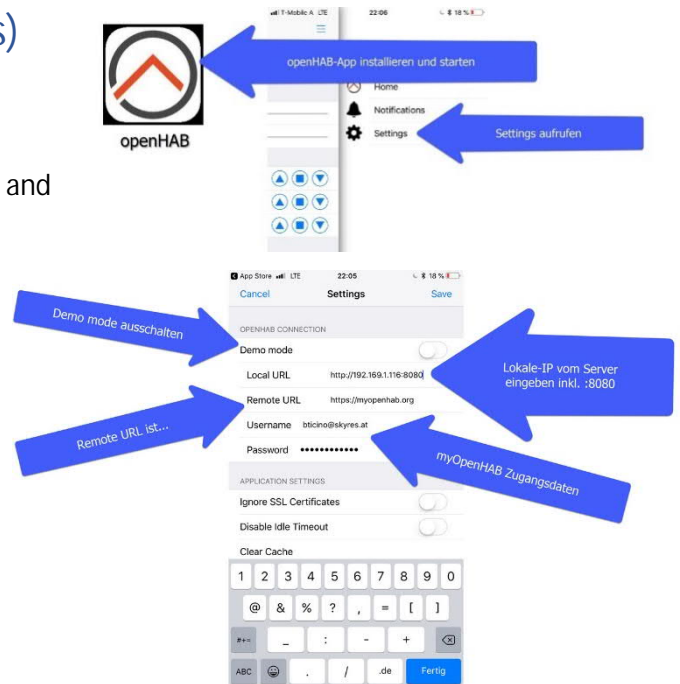
## 6. OPENHAB (iOS, Android, Windows)

### 6.1 Connect to piCino

After configuring the piCino, you have to install and start the „openHAB“-App.

Open „Settings“ and change the following:

- Demo mode: has to be turned off
- Local URL: insert local IP-address of the piCino (incl. :8080). For example: <http://192.168.1.116:8080>
- Remote URL: insert the following: <https://myopenhab.org>
- Username: Email from myOpenHAB-Account
- Password: Password from myOpenHAB-Account



Then click „Save“. If you are in the local LAN, openHAB uses the local URL and if you are outside it uses the Remote-URL to connect to the piCino..

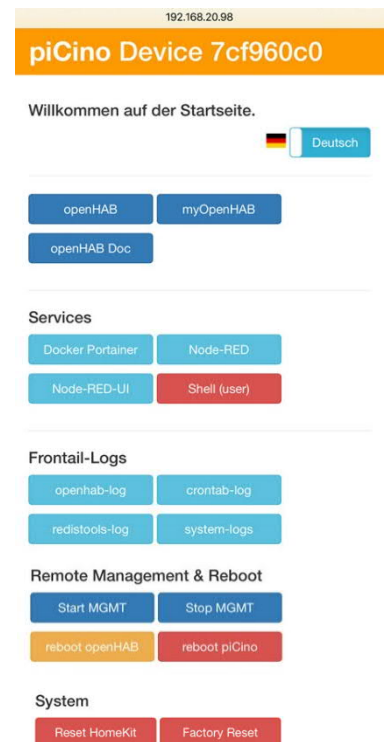
If you don't have your piCino-IP, you can insert the value of the Remote-URL in the Local-URL field, too.

## 7. WEB-Interface

### 7.1 piCino-Userinterface

By entering the IP-address of the piCino in your webbrower, you get the web-interface of the piCino-Server. There you can start some functions and display the logfile, which is helpful for troubleshooting. Mentionable functions are:

- **openHAB**  
Opens the openHAB-webinterface.
- **myOpenHAB**  
Opens the myOpenHAB-Website to login or register yourself, for connection to the cloud and check the online-status of the piCino.
- **Openhab-log**  
Opens the openHAB-Log. There you can check all called commands or error-messages.
- **Start MGMT**  
Activates remote-management, if it's required by the developer.
- **Stop MGMT**  
Deactivates remote-management again.
- **Reboot openHAB**  
Reboots the openHAB-service of the piCino. This takes about 2 minutes.
- **Reboot piCino**  
Reboots the operating system of the piCino. This takes about ca. 3 minutes.
- **Reset HomeKit**  
If HomeKit is paired with the piCino and you would like to pair another HomeKit (with a different Apple-ID) it can be necessary to reset HomeKit-settings on the piCino. This function deletes the actual HomeKit-pairing.
- **Factory Reset**  
Restores factory defaults. All settings and data will be deleted and the configuration has to be transferred again.

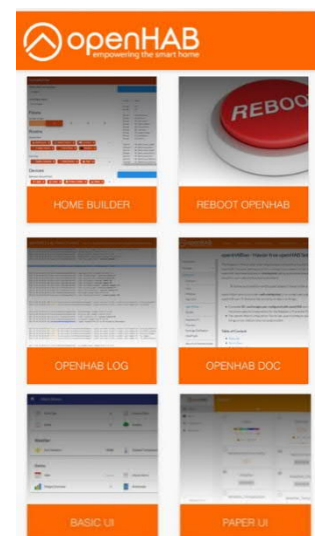


### 7.2 openHAB-Userinterface

This Interface you can get by clicking the openHAB-button on the piCino-Interface or directly if you enter your piCino's-IP-address including port 8080 (for example: 192.168.1.98:8080).

With the this -Interface you can control your system via web browser. Important buttons:

- **REBOOT OPENHAB**  
Reboots the openHAB-service. This takes about 2 minutes.
- **OPENHAB LOG**  
Opens the openHAB-Logfile.
- **BASIC UI**  
Opens web-interface to control your piCino. This link you can use on all other devices with a webbrower to open directly the web-control.
- **PAPER UI**  
Opens the openHAB-configuration-interface. There you can install additional bindings and add-ons.  
Attention: this button should only be used by experienced openHAB-users because you can damage your piCino's functionality.
- **HABPANEL**  
Here you can build your own web-control-dashboard for your piCino.



## 8. TROUBLESHOOTING

Problem	Check
General: Items are not working	<ul style="list-style-type: none"> <li>• Check if your piCino is connected to power and network.</li> <li>• If yes, check if piCino-Operating-System is running. For that, open a web browser and enter your piCino's IP-address (for example: 192.168.1.98)</li> <li>• If yes, check if openHAB-Service is running. For that, open a web browser and enter your piCino's IP-address including port 8080 (for example: 192.168.1.98:8080)</li> <li>• Check if your items were transferred correctly to your piCino. For that, open your openHAB-webinterface and click button „BASIC UI“. After that a link should show up called „Bticino“ and there you should see your items.</li> <li>• Check openHAB-logfile for errors.</li> <li>• Restart openHAB via piCino's webinterface.</li> <li>• Restart piCino via piCino's webinterface.</li> <li>• Re-plug your piCino's power supply.</li> <li>• Re-send your configuration to your piCino</li> <li>• If non of this points are working, reset your piCino's factory defaults (via piCino's webinterface)</li> </ul>
piCino items are not controlable via Alexa	<ul style="list-style-type: none"> <li>• Let Alexa discovery new devices</li> <li>• Check if openHAB-skill is activated</li> <li>• Check if your piCino is logged into the openHAB-Cloud (log into <a href="https://myopenhab.org">https://myopenhab.org</a> and check online-state)</li> <li>• Check if openHAB-Cloud is online (via <a href="https://status.openhab.org/">https://status.openhab.org/</a>)</li> <li>• Check if you can control your items via openHAB-webinterface</li> </ul>
piCino items are not controlable via Siri	<ul style="list-style-type: none"> <li>• Check if your Apple-device is in the same network as your piCino</li> <li>• Check if iOS 11 or newer is installed on your iPhone or iPad</li> <li>• Check if you can control your items via openHAB-webinterface</li> </ul>
piCino items are not controlable via Google Home	<ul style="list-style-type: none"> <li>• Remove and add openHAB in your Google-Home-App (via „Devices“)</li> <li>• Check if openHAB-skill is activated</li> <li>• Check if your piCino is logged into the openHAB-Cloud (log into <a href="https://myopenhab.org">https://myopenhab.org</a> and check online-state)</li> <li>• Check if openHAB-Cloud is online (via <a href="https://status.openhab.org/">https://status.openhab.org/</a>)</li> <li>• Check if you can control your items via openHAB-webinterface</li> </ul>
No connection to Apple HomeKit possible or openHAB don't show up in Apple Home	<ul style="list-style-type: none"> <li>• Reset your HomeKit-settings (via piCino-webinterface)</li> </ul>
piCino items are not controlable via openHAB App	<ul style="list-style-type: none"> <li>• Check your server-settings for Local-URL and Remote-URL.</li> <li>• Check if you can control your items via openHAB-webinterface</li> </ul>