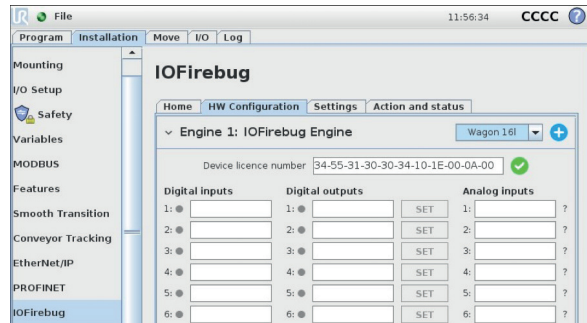


5 Initialize the IOFirebug

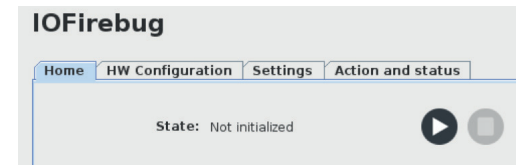


1. From the System menu screen go to **Program robot > Installation tab > IOFirebug** screen
2. Fill in the device license number

Note: Correct format is like 00-01-02-03-04-05-06-07-08-09-10. These values are in hexadecimal format, so they can contain characters a to f as well.



3. Tap the blue + sign to add optional expansion modules
4. Tap the blue + sign to add optional expansion modules



5. If the state is "Ready" your IOFirebug set of devices is ready to use.

USING the IOFirebug

Please follow the instruction manual and explore how to set actions and statuses and create your own robot program using the IOFirebug.

Instruction manual can be downloaded from <https://4each.cz/iofirebug-engine-for-universal-robots>.

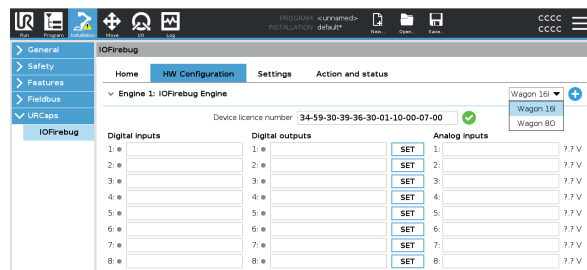


5 Initialize the IOFirebug

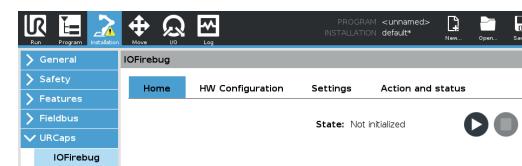


1. From the toolbar menu screen go to **Installation > URcaps > IOFirebug** screen
2. Fill in the device license number on the HW configuration tab

Note: Correct format is like 00-01-02-03-04-05-06-07-08-09-10. These values are in hexadecimal format, so they can contain characters a to f as well.



3. Tap the blue + sign to add optional expansion modules
4. Run the URcap by pressing the **Start** button on the "Home" tab



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USING the IOFirebug

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IOFIREBUG ENGINE FOR UNIVERSAL ROBOTS

Quick start guide for CB-series and E-series

FAST & EASY



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1 Wiring



- > provide the correct power supply to the IOFirebug Engine. The power source with **12 V or 24 V DC** is supported with **at least 0.3 A**.
- > Connect the IOFirebug engine to the robot's control box with USB or RS-422.
- > **USB** — Type A connector to the control box and the Type B connector to the IOFirebug Engine unit. robot's control box with USB or RS-422.
- > Robot CB can communicate with IOFirebug using an additional USB to RS-422 converter (i.e. SB485s from papouch.com).
- > Both interfaces (USB and RS-422) are completely interchangeable but make sure **to use only one**.



2 Wagon expansion modules



- > IOFirebug products for Universal robots allow expansion of robot I/O interfaces depending on the count of Wagon modules connected.
- > Modules are connected to the IOFirebug Engine device with 10 pin ribbon cable (part of Wagon delivery), using the SPI interface
- > **A jumper must terminate the last module**

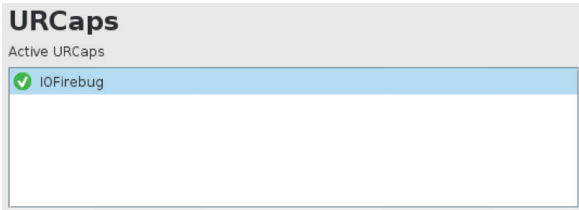


4 Installing the URCap



1. From the System menu screen — choose **Setup robot**
2. tap the **URCaps** button
3. Tap the **+** button
4. Find your **.urcap** file with the plugin
5. Tap the **Restart** button to activate the URCap

After the robot restarts, please check on the same screen if the plugin is installed correctly — a green icon appears.



1 Wiring



- > provide the correct power supply to the IOFirebug Engine. The power source with **12 V or 24 V DC** is supported with **at least 0.3 A**.
- > Connect the IOFirebug engine to the robot's control box with USB or RS-422.
- > **USB** — Type A connector to the control box and the Type B connector to the IOFirebug Engine unit.
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4 Installing the URCap



1. From the hamburger menu — choose Settings...
2. Chose **System - URCaps**
3. Tap the **+** button
4. Find your **.urcap** file with the plugin
5. Tap the **Restart** button to activate the URCap

After the robot restarts, please check on the same screen if the plugin is installed correctly — a green icon appears.

