

Example project: LED colors

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1 Overview

In this project it is shown how to use the multicolor LED. It also shows what's possible with JavaScript with an automatic color changer.



2 Details of the project

2.1 Scripts

2.1.1 Init.js

This script is running on the event OnProjektInit. It sets the variables necessary for a smooth start of the automatic color mode.

2.1.2 auto_on.js

This script is running on the event OnPress of the lower right softkey (which is set to latching, i.e. if you press/release once, it is set to auto, press/release again to turn auto mode off). It sets the visibility for the color code and the auto color mode to 1.

2.1.3 auto_off.js

This script is running on the event OnRelease of the lower right softkey. It sets the visibility for the color code and the auto color mode to 0.

2.1.4 auto_mode.js

This script is running on the event OnPageRepeat of the Home Page. It works as a state machine and changes the color of the multicolor LED smoothly. The state machine has 6 states, in the first, red is accumulated from 0 to 255, then green, then blue, and in the next three they are reduced to 0 again one after another.

In the end the values are combined to create one hexadecimal value which is what the variable @LED_MultiColor expects. It uses the methods .toString (converts a numerical value to a String, converting it to the base given, in this case base 16 (hexadecimal)) and .substring (crops a String from the given position).

2.2 Important elements

The color buttons all simply set the variable @LED_MultiColor directly. Please note that you can enter hexadecimal values like 0xFFFFFFFF in the SetValue dialog.