Tutorials
Documentation
Configuration
Python Server library
Supported Devices
Device library
Javascript library
CSS naming
GPIO / REST API
Changelog
Roadmap

JAVASCRIPT

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You can use the included Javascript library to build your own interface.

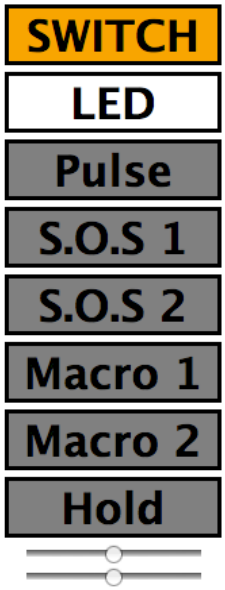
- Example
- Function details
  - webiopi()
  - WebIOPi.ready(callback)
  - WebIOPi.setFunction(gpio, func[, callback])
  - WebIOPi.digitalWrite(gpio, value[, callback])
  - WebIOPi.digitalRead(gpio[, callback])
  - WebIOPi.toggleValue(gpio)
  - WebIOPi.callMacro(macro, [args[, callback]])
  - WebIOPi.outputSequence(gpio, period, sequence[, callback])
  - WebIOPi.pulse(gpio[, callback])
  - WebIOPi.pulseRatio(gpio, ratio[, callback])
  - WebIOPi.pulseAngle(gpio, angle[, callback])
  - WebIOPi.createButton(id, label[, mousedown[, mouseup]])
  - WebIOPi.createFunctionButton(gpio)
  - WebIOPi.createGPIOButton(gpio, label)
  - WebIOPi.createMacroButton(id, label, macro, args)
  - WebIOPi.createSequenceButton(id, label, gpio, period, sequence)
  - WebIOPi.createRatioSlider(gpio, ratio)
  - WebIOPi.createAngleSlider(gpio, angle)
  - WebIOPi.setLabel(id, label)

Example

This example displays big buttons arranged in a column. It also changes the background color of the GPIO 7 for both low and high states.

```
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://www.w3.org/TR/html4/loose.dtd">
<html>
<head>
        <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
        <meta name="viewport" content = "height = device-height, width = 420, user-scalable = no" />
        <title>WebIOPi | Demo</title>
        <script type="text/javascript" src="/webiopi.js"></script>
        <script type="text/javascript">
        webiopi().ready(function() {
                var content, button;
                content = $("#content");

                // create a "SWITCH" labeled button for GPIO 0
                button = webiopi().createGPIOButton(0, "SWITCH");
                content.append(button); // append button to content div

                // create a "LED" labeled button for GPIO 7
                button = webiopi().createGPIOButton(7, "LED");
                content.append(button); // append button to content div

                // create a button that output a single pulse
                button = webiopi().createPulseButton("pulse", "Pulse", 7);
                content.append(button); // append button to content div

                // create a button which output a bit sequence on GPIO 7 with a 100ms period
                button = webiopi().createSequenceButton("sos", "S.O.S 1", 7, 100, "01010100110011001100101010");
                content.append(button); // append button to content div

                // the previous button will always output the same sequence
                // you can also create a simple button with your own function
                button = webiopi().createButton("sos2", "S.O.S 2", outputSequence);
                content.append(button); // append button to content div

                // create a button which call myMacroWithoutArgs
                button = webiopi().createMacroButton("macro", "Macro 1", "myMacroWithoutArgs");
                content.append(button); // append button to content div

                // create a button which call myMacroWithArgs with "1,2,3" as argument
                button = webiopi().createMacroButton("macro", "Macro 2", "myMacroWithArgs", [1,2,3]);
                content.append(button); // append button to content div

                // the previous button will always call myMacroWithArgs with the same "1,2,3" argument
                // you can also create a simple button with your own function
                button = webiopi().createButton("macro2", "Macro 3", callMacro);
                content.append(button); // append button to content div

                // you can also create a button which calls a different function for mouse down and up events
                button = webiopi().createButton("hold", "Hold", mousedown, mouseup);
                content.append(button);
```

```
                // Only for Chrome and Safari, create a slider that pulse out a 0-100% duty cycle ratio on GPIO 8
                button = webiopi().createRatioSlider(8);
                content.append(button);

                // Only for Chrome and Safari, create a slider that pulse out a -45 to +45° angle on GPIO 9
                button = webiopi().createAngleSlider(9);
                content.append(button);
        });

        function mousedown() {
                webiopi().digitalWrite(7, 1);
        }

        function mouseup() {
                webiopi().digitalWrite(7, 0);
        }

        function outputSequence() {
                var sequence = "01010100110011001100101010" // S.O.S. morse code or whatever you want
                // output sequence on gpio 7 with a 100ms period
                webiopi().outputSequence(7, 100, sequence, sequenceCallback);
        }

        function sequenceCallback(gpio, data) {
                alert("sequence on " + gpio + " finished with " + data);
        }

        function callMacro() {
                var args = [1,2,3] // or whatever you want
                // call myMacroWithArgs(arg)
                webiopi().callMacro("myMacroWithArgs", args, macroCallback);
        }

        function macroCallback(macro, args, data) {
                alert(macro + " returned with " + data);
        }

        </script>
        <style type="text/css">
                button {
                        display: block;
                        margin: 5px 5px 5px 5px;
                        width: 160px;
                        height: 45px;
                        font-size: 24pt;
                        font-weight: bold;
                        color: black;
                }

                input[type="range"] {
                        display: block;
                        width: 160px;
                        height: 45px;
                }

                #gpio7.LOW {
                        background-color: White;
                }

                #gpio7.HIGH {
                        background-color: Red;
                }
        </style>
</head>
<body>
        <div id="content" align="center"></div>
</body>
</html>
```



Function details

webiopi()

Returns the WebIOPi object instance.

WebIOPi.ready(callback)

Register the function to call when WebIOPi is ready.

- (function) callback : function to call

WebIOPi.setFunction(gpio, func[, callback])

Set the function on the GPIO.

- (int) gpio : GPIO number from 0 to 53
- (string) func : "IN" or "OUT" or "PWM"
- (function) callback (optional) : function called when result received from the server

WebIOPi.digitalWrite(gpio, value[, callback])

Set the output value of a GPIO.

- (int) gpio : GPIO number from 0 to 53
- (int) value : 0 or 1
- (function) callback (optional) : function called when result received from the server

WebIOPi.digitalRead(gpio[, callback])

Read the value of a GPIO.

- (int) gpio : GPIO number from 0 to 53
- (function) callback (optional) : function called when result received from the server

WebIOPi.toggleValue(gpio)

Toggle value of a GPIO.

- (int) gpio : GPIO number from 0 to 53

WebIOPi.callMacro(macro, [args[, callback]])

Call a macro on the server.

- (string) macro : name of the macro to call
- (string) arg (optional) : array containing arguments
- (function) callback (optional) : function called when result received from the server

WebIOPi.outputSequence(gpio, period, sequence[, callback])

Output a bit sequence on a GPIO.

- (int) gpio : GPIO number from 0 to 53
- (int) period : time in ms between each bit
- (string) sequence : bit sequence
- (function) callback (optional) : function called when result received from the server

WebIOPi.pulse(gpio[, callback])

Output a single pulse on a GPIO.

- (int) gpio : GPIO number from 0 to 53
- (function) callback (optional) : function called when result received from the server

WebIOPi.pulseRatio(gpio, ratio[, callback])

Output a PWM duty cycle ratio on a GPIO.

- (int) gpio : GPIO number from 0 to 53
- (float) ratio : duty cycle from 0.0 to 1.0
- (function) callback (optional) : function called when result received from the server

WebIOPi.pulseAngle(gpio, angle[, callback])

Output a PWM angle on a GPIO.

- (int) gpio : GPIO number from 0 to 53
- (int) angle : angle in degree from -45 to +45
- (function) callback (optional) : function called when result received from the server

WebIOPi.createButton(id, label[, mousedown[, mouseup]])

Returns a simple button without predefined behavior.

- (string) id : id of the button to create
- (string) label : label of the button
- (function) mousedown (optional) : function called on mousedown/click event
- (function) mouseup (optional) : function called on mouseup event

WebIOPi.createFunctionButton(gpio)

Returns a button that change the function of a GPIO.

- (int) gpio : GPIO number from 0 to 53

WebIOPi.createGPIOButton(gpio, label)

Returns a button that change the state of a GPIO at each click.

- (int) gpio : GPIO number from 0 to 53
- (string) label : label of the button

WebIOPi.createMacroButton(id, label, macro, args)

Returns a button that call a macro on the server.

- (string) id : id of the button to create
- (string) label : label of the button
- (string) macro : name of the macro to call
- (string) args : string arguments

WebIOPi.createSequenceButton(id, label, gpio, period, sequence)

Returns a button that output a bit sequence on a GPIO.

- (string) id : id of the button to create
- (string) label : label of the button
- (int) gpio : GPIO number from 0 to 53
- (int) period : time in ms between each bit
- (string) sequence : bit sequence

WebIOPi.createRatioSlider(gpio, ratio)

Returns a slider that send its value as a PWM duty cycle ratio

- (int) gpio : GPIO number from 0 to 53
- (float) ratio : slider's init value

WebIOPi.createAngleSlider(gpio, angle)

Returns a slider that send its value as a PWM angle

- (int) gpio : GPIO number from 0 to 53
- (int) angle : slider's init value

WebIOPi.setLabel(id, label)

Change a label of given button.

- (string) id : id of the button to change
- (string) label : new label of the button