

Admin Panel

Generated by Doxygen 1.9.5

1 Admin Panel	1
1.1 Install Packages:	1
1.2 Run:	1
1.3 Build EXE to export:	1
1.4 Template from:	1
2 Class Index	3
2.1 Class List	3
3 File Index	5
3.1 File List	5
4 Class Documentation	7
4.1 Code Class Reference	7
4.1.1 Member Function Documentation	7
4.1.1.1 constructor()	7
4.1.1.2 generate()	7
4.1.1.3 get()	7
4.2 WebSocketServer Class Reference	8
4.2.1 Member Function Documentation	8
4.2.1.1 close()	8
4.2.1.2 connect()	8
4.2.1.3 constructor()	8
4.2.1.4 generateCode()	9
4.2.1.5 getCode()	9
4.2.1.6 getPort()	9
4.2.1.7 getRaspberryPiMap()	9
4.2.1.8 getSelectedRaspberryPi()	10
4.2.1.9 isConnected()	10
4.2.1.10 selectRaspberryPi()	10
4.2.1.11 sendBehaviourTree()	10
4.2.1.12 startBehaviourTree()	10
4.2.1.13 startConnections()	11
4.2.1.14 stopBehaviourTree()	11
5 File Documentation	13
5.1 js/behaviour_tree.js File Reference	13
5.1.1 Function Documentation	13
5.1.1.1 getBehaviourTreeList()	13
5.1.1.2 handle()	14
5.1.1.3 isDev()	14
5.1.1.4 removeBehaviourTree()	14
5.1.1.5 saveBehaviourTree()	14
5.1.1.6 sendBehaviourTree()	14

5.1.1.7 startBehaviourTree()	14
5.1.1.8 stopBehaviourTree()	14
5.1.1.9 updateBehaviourTreeList()	14
5.1.1.10 validateBehaviourTree()	15
5.1.2 Variable Documentation	15
5.1.2.1 base_path	15
5.1.2.2 const	15
5.1.2.3 exec	15
5.1.2.4 fs	15
5.1.2.5 Os	16
5.1.2.6 path	16
5.1.2.7 resources_dir	16
5.2 js/device.js File Reference	16
5.2.1 Function Documentation	16
5.2.1.1 getLocalIPList()	16
5.2.1.2 handle()	16
5.2.2 Variable Documentation	17
5.2.2.1 exports	17
5.2.2.2 os	17
5.3 js/main.js File Reference	17
5.3.1 Function Documentation	17
5.3.1.1 createWindow()	17
5.3.1.2 isDev()	18
5.3.1.3 on()	18
5.3.1.4 onClose()	18
5.3.2 Variable Documentation	18
5.3.2.1 const	18
5.3.2.2 loadURL	18
5.3.2.3 path	18
5.3.2.4 serve	18
5.4 src/main.js File Reference	19
5.4.1 Variable Documentation	19
5.4.1.1 app	19
5.4.1.2 pcss	19
5.4.1.3 svelte	19
5.5 js/preload.js File Reference	19
5.6 js/raspberry_pi.js File Reference	19
5.6.1 Function Documentation	20
5.6.1.1 getRaspberryPiList()	20
5.6.1.2 getSelectedRaspberryPi()	20
5.6.1.3 handle()	20
5.6.1.4 selectRaspberryPi()	20

5.6.1.5 unselectRaspberryPi()	20
5.6.2 Variable Documentation	21
5.6.2.1 const	21
5.7 js/store.js File Reference	21
5.8 js/websocket.js File Reference	21
5.8.1 Function Documentation	21
5.8.1.1 getRandomInt()	21
5.8.2 Variable Documentation	22
5.8.2.1 exports	22
5.8.2.2 WebSocket	22
5.9 js/websocket_events.js File Reference	22
5.9.1 Function Documentation	22
5.9.1.1 closeWebSocketServer()	22
5.9.1.2 getWebSocketServer()	23
5.9.1.3 handle()	23
5.9.1.4 startWebSocketServer()	23
5.9.2 Variable Documentation	23
5.9.2.1 const	23
5.9.2.2 tcpPortUsed	23
5.10 README.md File Reference	23
5.11 rollup.config.js File Reference	23
5.11.1 Function Documentation	24
5.11.1.1 serve()	24
5.11.2 Variable Documentation	24
5.11.2.1 commonjs	24
5.11.2.2 default	24
5.11.2.3 import	24
5.11.2.4 livereload	25
5.11.2.5 only	25
5.11.2.6 polyfills	25
5.11.2.7 production	25
5.11.2.8 resolve	25
5.11.2.9 svelte	25
5.11.2.10 tailwindConfig	25
5.11.2.11 tailwindcss	25
5.12 src/App.svelte File Reference	26
5.13 src/lib/BehaviourTreeHandler.svelte File Reference	26
5.14 src/lib/CodeBox_Constants.js File Reference	26
5.14.1 Variable Documentation	26
5.14.1.1 condition_operator_types	26
5.14.1.2 import	26
5.14.1.3 node_hover	26

5.14.1.4 node_information_list	27
5.14.1.5 range_0_100	27
5.14.1.6 range_0_180	27
5.14.1.7 range_0_360	27
5.15 src/lib/home/CodeBox.svelte File Reference	28
5.16 src/lib/validate/CodeBox.svelte File Reference	28
5.17 src/lib/home/CodeMessagingBar.svelte File Reference	28
5.18 src/lib/home/Stream.svelte File Reference	28
5.19 src/lib/IPList.svelte File Reference	28
5.20 src/lib/NavigationBar.svelte File Reference	28
5.21 src/lib/RaspberryPiConnectBanner.svelte File Reference	28
5.22 src/lib/RaspberryPiSelector.svelte File Reference	28
5.23 src/lib/SaveBehaviourTreeModal.svelte File Reference	28
5.24 src/lib/validate/CodeButton.svelte File Reference	28
5.25 src/lib/WebsocketServerConfig.svelte File Reference	28
5.26 src/routes.js File Reference	28
5.26.1 Variable Documentation	28
5.26.1.1 default	28
5.26.1.2 svelte	29
5.27 src/routes/Home.svelte File Reference	29
5.28 src/routes/NotFound.svelte File Reference	29
5.29 src/routes/Validate.svelte File Reference	29
5.30 src/routes/Websocket.svelte File Reference	29
5.31 src/store/behaviour_tree_store.js File Reference	29
5.31.1 Function Documentation	29
5.31.1.1 main()	29
5.31.2 Variable Documentation	29
5.31.2.1 behaviour_tree_list	30
5.31.2.2 behaviour_tree_save_modal_code	30
5.31.2.3 behaviour_tree_xml_code	30
5.31.2.4 import	30
5.31.2.5 show_behaviour_tree_save_modal	30
5.32 src/store/home_store.js File Reference	30
5.32.1 Variable Documentation	30
5.32.1.1 import	31
5.32.1.2 lidar_toggle	31
5.32.1.3 main_pane_size_0_store	31
5.32.1.4 main_pane_size_1_store	31
5.32.1.5 side_pane_size_0_store	31
5.32.1.6 side_pane_size_1_store	31
5.33 src/store/raspberry_pi_store.js File Reference	31
5.33.1 Function Documentation	32

5.33.1.1 main()	32
5.33.1.2 onConnection()	32
5.33.1.3 onDisconnection()	32
5.33.2 Variable Documentation	32
5.33.2.1 import	32
5.33.2.2 raspberry_pi_uuid_list	32
5.33.2.3 selected_raspberry_pi_uuid	33
5.34 src/store/websocket_store.js File Reference	33
5.34.1 Function Documentation	33
5.34.1.1 main()	33
5.34.1.2 onMessage()	33
5.34.2 Variable Documentation	33
5.34.2.1 camera_stream	34
5.34.2.2 import	34
5.34.2.3 lidar_stream	34
5.34.2.4 websocket_server_code	34
5.34.2.5 websocket_server_connection_state	34
5.34.2.6 websocket_server_port	34
Index	35

Chapter 1

Admin Panel

The app to directly control the Sunfounder PiCar.

1.1 Install Packages:

```
pnpm i
```

1.2 Run:

```
pnpm run electron
```

1.3 Build EXE to export:

```
pnpm run preelectron-pack  
AND  
pnpm run electron-pack
```

1.4 Template from:

<https://github.com/soulehshaikh99/create-svelte-electron-app>

Chapter 2

Class Index

2.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

Code	7
WebSocketServer	8

Chapter 3

File Index

3.1 File List

Here is a list of all files with brief descriptions:

rollup.config.js	23
js/behaviour_tree.js	13
js/device.js	16
js/main.js	17
js/preload.js	19
js/raspberry_pi.js	19
js/store.js	21
js/websocket.js	21
js/websocket_events.js	22
src/App.svelte	26
src/main.js	19
src/routes.js	28
src/lib/BehaviourTreeHandler.svelte	26
src/lib/CodeBox_Constants.js	26
src/lib/IPList.svelte	28
src/lib/NavigationBar.svelte	28
src/lib/RaspberryPiConnectBanner.svelte	28
src/lib/RaspberryPiSelector.svelte	28
src/lib/SaveBehaviourTreeModal.svelte	28
src/lib/WebsocketServerConfig.svelte	28
src/lib/home/CodeBox.svelte	28
src/lib/home/CodeMessagingBar.svelte	28
src/lib/home/Stream.svelte	28
src/lib/validate/CodeBox.svelte	28
src/lib/validate/CodeButton.svelte	28
src/routes/Home.svelte	29
src/routes/NotFound.svelte	29
src/routes/Validate.svelte	29
src/routes/Websocket.svelte	29
src/store/behaviour_tree_store.js	29
src/store/home_store.js	30
src/store/raspberry_pi_store.js	31
src/store/websocket_store.js	33

Chapter 4

Class Documentation

4.1 Code Class Reference

Public Member Functions

- [constructor](#) ()
- [get](#) ()
- [generate](#) ()

4.1.1 Member Function Documentation

4.1.1.1 constructor()

```
Code::constructor ( ) [inline]
```

4.1.1.2 generate()

```
Code::generate ( ) [inline]
```

4.1.1.3 get()

```
Code::get ( ) [inline]
```

The documentation for this class was generated from the following file:

- [js/websocket.js](#)

4.2 WebSocketServer Class Reference

Public Member Functions

- [constructor](#) ()
- [connect](#) (port)
- [isConnected](#) ()
- [close](#) ()
- [generateCode](#) ()
- [getCode](#) ()
- [getPort](#) ()
- [getRaspberryPiMap](#) ()
- [getSelectedRaspberryPi](#) ()
- [selectRaspberryPi](#) (uuid)
- [async startConnections](#) ()
- [sendBehaviourTree](#) (behaviour_tree)
- [startBehaviourTree](#) ()
- [stopBehaviourTree](#) ()

4.2.1 Member Function Documentation

4.2.1.1 close()

```
WebSocketServer::close ( ) [inline]
```

Call this function to close the WebSocket server.

4.2.1.2 connect()

```
WebSocketServer::connect (
    port ) [inline]
```

Call this function to start the WebSocket server.

Parameters

<i>{number}</i>	port
-----------------	------

4.2.1.3 constructor()

```
WebSocketServer::constructor ( ) [inline]
```

@type {WebSocket.Server | undefined}

@type {number | undefined}

@type {Code}

@type {Map<string, WebSocket>}

@type {RaspberryPi | undefined}

4.2.1.4 generateCode()

```
WebSocketServer::generateCode ( ) [inline]
```

Returns

{number}

4.2.1.5 getCode()

```
WebSocketServer::getCode ( ) [inline]
```

Returns

{number}

4.2.1.6 getPort()

```
WebSocketServer::getPort ( ) [inline]
```

Returns

{number}

4.2.1.7 getRaspberryPiMap()

```
WebSocketServer::getRaspberryPiMap ( ) [inline]
```

Returns

{Map<string, WebSocket>}

4.2.1.8 getSelectedRaspberryPi()

```
WebSocketServer::getSelectedRaspberryPi ( ) [inline]
```

Returns

{RaspberryPi | undefined}

4.2.1.9 isConnected()

```
WebSocketServer::isConnected ( ) [inline]
```

4.2.1.10 selectRaspberryPi()

```
WebSocketServer::selectRaspberryPi (
    uuid ) [inline]
```

Select a Raspberry Pi to send / receive messages from.

Parameters

{string}	uuid
----------	------

Returns

4.2.1.11 sendBehaviourTree()

```
WebSocketServer::sendBehaviourTree (
    behaviour_tree ) [inline]
```

Parameters

{string}	behaviour_tree
----------	----------------

4.2.1.12 startBehaviourTree()

```
WebSocketServer::startBehaviourTree ( ) [inline]
```

4.2.1.13 startConnections()

```
async WebSocketServer::startConnections ( ) [inline]
```

4.2.1.14 stopBehaviourTree()

```
WebSocketServer::stopBehaviourTree ( ) [inline]
```

The documentation for this class was generated from the following file:

- [js/websocket.js](#)

Chapter 5

File Documentation

5.1 js/behaviour_tree.js File Reference

Functions

- function `isDev` ()
- function `sendBehaviourTree` (_event, args)
- function `startBehaviourTree` (_event, _args)
- function `stopBehaviourTree` (_event, _args)
- function `getBehaviourTreeList` ()
- function `updateBehaviourTreeList` (behaviour_tree_list)
- function async `saveBehaviourTree` (_event, args)
- function async `removeBehaviourTree` (_event, args)
- function async `validateBehaviourTree` (_event, args)
- ipcMain `handle` ('sendBehaviourTree', `sendBehaviourTree`)

Variables

- `const` { `app`, `ipcMain` } = `require`('electron')
- `const` `exec` = `util.promisify`(`require`('child_process').`exec`)
- `const` `Os` = `require`('os')
- `const` `path` = `require`("path")
- `const` `fs` = `require`("fs")
- `const` `base_path` = `app.getAppPath`()
- `const` `resources_dir` = `isDev`() ? `path.join`(`base_path`, 'resources') : `path.join`(`base_path`, '..', '..', 'resources')

5.1.1 Function Documentation

5.1.1.1 `getBehaviourTreeList()`

```
function getBehaviourTreeList ( )
```

5.1.1.2 handle()

```
ipcMain handle (
    'sendBehaviourTree' ,
    sendBehaviourTree )
```

5.1.1.3 isDev()

```
function isDev ( )
```

5.1.1.4 removeBehaviourTree()

```
function async removeBehaviourTree (
    _event,
    args )
```

5.1.1.5 saveBehaviourTree()

```
function async saveBehaviourTree (
    _event,
    args )
```

5.1.1.6 sendBehaviourTree()

```
function sendBehaviourTree (
    _event,
    args )
```

5.1.1.7 startBehaviourTree()

```
function startBehaviourTree (
    _event,
    _args )
```

5.1.1.8 stopBehaviourTree()

```
function stopBehaviourTree (
    _event,
    _args )
```

5.1.1.9 updateBehaviourTreeList()

```
function updateBehaviourTreeList (
    behaviour_tree_list )
```

Parameters

<code>{any[]}</code>	<code>behaviour_tree_list</code>
----------------------	----------------------------------

5.1.1.10 validateBehaviourTree()

```
function async validateBehaviourTree (
    _event,
    args )
```

@type {string}

5.1.2 Variable Documentation**5.1.2.1 base_path**

```
const base_path = app.getAppPath()
```

5.1.2.2 const

```
const { app, ipcMain } = require('electron')
```

5.1.2.3 exec

```
const exec = util.promisify(require('child_process').exec)
```

5.1.2.4 fs

```
const fs = require("fs")
```

5.1.2.5 Os

```
const Os = require('os')
```

5.1.2.6 path

```
const path = require("path")
```

5.1.2.7 resources_dir

```
const resources_dir = isDev() ? path.join(base_path, 'resources') : path.join(base_path,
'..', '..', 'resources')
```

5.2 js/device.js File Reference

Functions

- function [getLocalIPList](#) ([_event](#), [_args](#))
- ipcMain [handle](#) ('[getLocalIPList](#)', [getLocalIPList](#))

Variables

- [const](#) [os](#)
- module [exports](#)

5.2.1 Function Documentation

5.2.1.1 getLocalIPList()

```
function getLocalIPList (
    _event,
    _args )
```

5.2.1.2 handle()

```
ipcMain handle (
    'getLocalIPList' ,
    getLocalIPList )
```


5.2.2 Variable Documentation

5.2.2.1 exports

module exports

Initial value:

```
= {  
  getLocalIPList: getLocalIPList  
}
```

5.2.2.2 os

const os

Initial value:

```
= require('os')  
const { ipcMain } = require('electron')
```

5.3 js/main.js File Reference

Functions

- function `isDev` ()
- function `createWindow` ()
- `app` on ('ready', `createWindow`)
- function `onClose` ()

Variables

- `const` { `app`, `BrowserWindow` } = `require`('electron')
- `const` `path` = `require`('path')
- `const` `serve` = `require`('electron-serve')
- `const` `loadURL` = `serve`({ `directory`: 'public' })

5.3.1 Function Documentation

5.3.1.1 `createWindow()`

```
function createWindow ( )
```

5.3.1.2 isDev()

```
function isDev ( )
```

5.3.1.3 on()

```
app on (
    'ready' ,
    createWindow )
```

5.3.1.4 onClose()

```
function onClose ( )
```

5.3.2 Variable Documentation

5.3.2.1 const

```
const { app, BrowserWindow } = require('electron')
```

5.3.2.2 loadURL

```
const loadURL = serve({ directory: 'public' })
```

5.3.2.3 path

```
const path = require('path')
```

5.3.2.4 serve

```
const serve = require('electron-serve')
```

5.4 src/main.js File Reference

Variables

- `import app pcss`
- `import App from App svelte`
- `const app`

5.4.1 Variable Documentation

5.4.1.1 app

```
export default app
```

Initial value:

```
= new App({  
  target: document.body,  
  props: {  
    name: "world",  
  },  
})
```

5.4.1.2 pcss

```
import app pcss
```

5.4.1.3 svelte

```
import App from App svelte
```

5.5 js/preload.js File Reference

5.6 js/raspberry_pi.js File Reference

Functions

- function `unselectRaspberryPi` (_event, _args)
- function `selectRaspberryPi` (_event, args)
- function `getRaspberryPiList` (_event, _args)
- function `getSelectedRaspberryPi` (_event, _args)
- ipcMain `handle` ('selectRaspberryPi', `selectRaspberryPi`)

Variables

- `const { ipcMain } = require('electron')`

5.6.1 Function Documentation

5.6.1.1 getRaspberryPiList()

```
function getRaspberryPiList (
    _event,
    _args )
```

5.6.1.2 getSelectedRaspberryPi()

```
function getSelectedRaspberryPi (
    _event,
    _args )
```

5.6.1.3 handle()

```
ipcMain handle (
    'selectRaspberryPi' ,
    selectRaspberryPi )
```

5.6.1.4 selectRaspberryPi()

```
function selectRaspberryPi (
    _event,
    args )
```

5.6.1.5 unselectRaspberryPi()

```
function unselectRaspberryPi (
    _event,
    _args )
```

5.6.2 Variable Documentation

5.6.2.1 const

```
const { ipcMain } = require('electron')
```

5.7 js/store.js File Reference

5.8 js/websocket.js File Reference

Classes

- class [Code](#)
- class [WebSocketServer](#)

Functions

- function [getRandomInt](#) (min, max)

Variables

- `const WebSocket = require('ws')`
- module `exports = { websocket_server: new WebSocketServer() }`

5.8.1 Function Documentation

5.8.1.1 getRandomInt()

```
function getRandomInt (
    min,
    max )
```

Parameters

<code>{number}</code>	min
<code>{number}</code>	max

Returns

{number}

5.8.2 Variable Documentation

5.8.2.1 exports

```
module exports = { websocket_server: new WebSocketServer() }
```

5.8.2.2 WebSocket

```
const WebSocket = require('ws')
```

5.9 js/websocket_events.js File Reference

Functions

- function async [startWebSocketServer](#) (_event, args)
- function [closeWebSocketServer](#) (_event, _args)
- function [getWebSocketServer](#) (_event, _args)
- ipcMain [handle](#) ('startWebSocketServer', startWebSocketServer)

Variables

- [const](#) { ipcMain } = require('electron')
- [const](#) [tcpPortUsed](#) = require('tcp-port-used')

5.9.1 Function Documentation

5.9.1.1 closeWebSocketServer()

```
function closeWebSocketServer (  
    _event,  
    _args )
```

5.9.1.2 getWebSocketServer()

```
function getWebSocketServer (
    _event,
    _args )
```

5.9.1.3 handle()

```
ipcMain handle (
    'startWebSocketServer' ,
    startWebSocketServer )
```

5.9.1.4 startWebSocketServer()

```
function async startWebSocketServer (
    _event,
    args )
```

5.9.2 Variable Documentation

5.9.2.1 const

```
const { ipcMain } = require('electron')
```

5.9.2.2 tcpPortUsed

```
const tcpPortUsed = require('tcp-port-used')
```

5.10 README.md File Reference

5.11 rollup.config.js File Reference

Functions

- function `serve` ()

Variables

- `import` svelte from rollup plugin `svelte`
- `import` commonjs from rollup plugin `commonjs`
- `import` resolve from rollup plugin node `resolve`
- `import` livereload from rollup plugin `livereload`
- `import` { terser } from 'rollup-plugin-terser'
- `import` css from rollup plugin css `only`
- `import` postcss from rollup plugin postcss `import` tailwindcss from `tailwindcss`
- `import` nodePolyfills from rollup plugin node `polyfills`
- `const` `tailwindConfig` = require('./tailwind.config.cjs')
- `const` `production` = !process.env.ROLLUP_WATCH
- `export` `default`

5.11.1 Function Documentation

5.11.1.1 `serve()`

```
function serve ( )
```

5.11.2 Variable Documentation

5.11.2.1 `commonjs`

```
import commonjs from rollup plugin commonjs
```

5.11.2.2 `default`

```
export default
```

5.11.2.3 `import`

```
import { terser } from 'rollup-plugin-terser'
```


5.11.2.4 livereload

```
import livereload from rollup plugin livereload
```

5.11.2.5 only

```
import css from rollup plugin css only
```

5.11.2.6 polyfills

```
import nodePolyfills from rollup plugin node polyfills
```

5.11.2.7 production

```
const production = !process.env.ROLLUP_WATCH
```

5.11.2.8 resolve

```
import resolve from rollup plugin node resolve
```

5.11.2.9 svelte

```
import NotFound from routes NotFound svelte
```

5.11.2.10 tailwindConfig

```
const tailwindConfig = require('./tailwind.config.cjs')
```

5.11.2.11 tailwindcss

```
import postcss from rollup plugin postcss import tailwindcss from tailwindcss
```

5.12 src/App.svelte File Reference

5.13 src/lib/BehaviourTreeHandler.svelte File Reference

5.14 src/lib/CodeBox_Constants.js File Reference

Variables

- `import { hoverTooltip } from "@codemirror/view"`
- `export const range_0_180`
- `export const range_0_360`
- `export const range_0_100`
- `export const condition_operator_types`
- `const node_information_list`
- `export const node_hover`

5.14.1 Variable Documentation

5.14.1.1 condition_operator_types

```
export const condition_operator_types
```

5.14.1.2 import

```
import { hoverTooltip } from "@codemirror/view"
```

5.14.1.3 node_hover

```
export const node_hover
```

Initial value:

```
= hoverTooltip((view, pos, side) => {
  const { from, to, text } = view.state.doc.lineAt(pos);
  let start = pos,
      end = pos;
  while (start > from && /\w|:/.test(text[start - from - 1])) start--;
  while (end < to && /\w|:/.test(text[end - from])) end++;
  if ((start == pos && side < 0) || (end == pos && side > 0)) return null;
  const highlighted_node = text.slice(start - from, end - from);
  const node_information = node_information_list.get(highlighted_node);
  if (!node_information) return null;
  return {
    pos: start,
    end,
    above: true,
    create(_) {
      const dom = document.createElement("div");
      dom.textContent = node_information;
      return { dom };
    },
  };
});
```

5.14.1.4 node_information_list

```
const node_information_list
```

Initial value:

```
= new Map([
  ["Root", "Start of every node tree"],
  ["Selector", "Runs children until one succeeds"],
  ["Sequence", "Runs children until one fails"],
  ["Random", "Runs a random child"],
  ["UseRoot", "Goes to the given root node id"],
  ["Invert", "Inverts the result of the child"],
  ["Repeat", "Repeats the child given the amount of times"],
  ["Fail", "Always fails"],
  ["Succeed", "Always succeeds"],
  ["Blackboard:ChangeInteger", "Changes the integer value of the blackboard"],
  ["Blackboard:IntegerCondition", "Checks the integer value of the blackboard"],
  ["Action:PauseExecution", "Pauses the execution for the given amount of time"],
  ["Action:Print", "Prints the given message"],
  ["Action:Drive", "Set the speed and direction of the car"],
  ["Action:Turn", "Turns the car by the given angle"],
  ["Action:SetAngle", "Turns the car by the given angle"],
  ["Action:SetSpeed", "Moves the car by the given speed"],
  ["Action:SetWheelDirection", "Sets the direction of the car"],
  ["Condition:SucceedOnAverageNearbyScan", "Checks the average distance between two angles and succeeds if
    the average is below the specified cm"],
  ["Condition:SucceedOnAnyNearbyScan", "Checks the distance of all nearby points and succeeds if any is
    below the specified cm"],
  ["Condition:SucceedOnAverageColour", "Checks the average colour of the camera and succeeds if the colour
    is within the tolerance"],
])
```

```
@type {Map<string, string>}
```

5.14.1.5 range_0_100

```
export const range_0_100
```

5.14.1.6 range_0_180

```
export const range_0_180
```

5.14.1.7 range_0_360

```
export const range_0_360
```

5.15 [src/lib/home/CodeBox.svelte](#) File Reference

5.16 [src/lib/validate/CodeBox.svelte](#) File Reference

5.17 [src/lib/home/CodeMessagingBar.svelte](#) File Reference

5.18 [src/lib/home/Stream.svelte](#) File Reference

5.19 [src/lib/IPList.svelte](#) File Reference

5.20 [src/lib/NavigationBar.svelte](#) File Reference

5.21 [src/lib/RaspberryPiConnectBanner.svelte](#) File Reference

5.22 [src/lib/RaspberryPiSelector.svelte](#) File Reference

5.23 [src/lib/SaveBehaviourTreeModal.svelte](#) File Reference

5.24 [src/lib/validate/CodeButton.svelte](#) File Reference

5.25 [src/lib/WebsocketServerConfig.svelte](#) File Reference

5.26 [src/routes.js](#) File Reference

Variables

- [import](#) Home from routes Home [svelte](#)
- [export](#) [default](#)

5.26.1 Variable Documentation

5.26.1.1 [default](#)

```
export default
```

Initial value:

```
{  
  ' / ': Home,  
  '/websocket': Websocket,  
  '/validate': Validate,  
  
  ' * ': NotFound  
}
```

5.26.1.2 svelte

```
import NotFound from routes NotFound svelte
```

5.27 src/routes/Home.svelte File Reference

5.28 src/routes/NotFound.svelte File Reference

5.29 src/routes/Validate.svelte File Reference

5.30 src/routes/Websocket.svelte File Reference

5.31 src/store/behaviour_tree_store.js File Reference

Functions

- function async `main` ()

Variables

- `import { writable } from 'svelte/store'`
- `export const behaviour_tree_xml_code = writable('')`
- `export const show_behaviour_tree_save_modal = writable(false)`
- `export const behaviour_tree_save_modal_code = writable('')`
- `export let behaviour_tree_list = writable([])`

5.31.1 Function Documentation

5.31.1.1 `main()`

```
main ( )
```

5.31.2 Variable Documentation

5.31.2.1 behaviour_tree_list

```
export let behaviour_tree_list = writable([])
```

5.31.2.2 behaviour_tree_save_modal_code

```
export const behaviour_tree_save_modal_code = writable("")
```

5.31.2.3 behaviour_tree_xml_code

```
export const behaviour_tree_xml_code = writable("")
```

5.31.2.4 import

```
import { writable } from 'svelte/store'
```

5.31.2.5 show_behaviour_tree_save_modal

```
export const show_behaviour_tree_save_modal = writable(false)
```

5.32 src/store/home_store.js File Reference

Variables

- `import { writable } from 'svelte/store'`
- `export const main_pane_size_0_store = writable(80)`
- `export const main_pane_size_1_store = writable(20)`
- `export const side_pane_size_0_store = writable(83)`
- `export const side_pane_size_1_store = writable(17)`
- `export const lidar_toggle = writable(true)`

5.32.1 Variable Documentation

5.32.1.1 import

```
import { writable } from 'svelte/store'
```

5.32.1.2 lidar_toggle

```
export const lidar_toggle = writable(true)
```

5.32.1.3 main_pane_size_0_store

```
export const main_pane_size_0_store = writable(80)
```

5.32.1.4 main_pane_size_1_store

```
export const main_pane_size_1_store = writable(20)
```

5.32.1.5 side_pane_size_0_store

```
export const side_pane_size_0_store = writable(83)
```

5.32.1.6 side_pane_size_1_store

```
export const side_pane_size_1_store = writable(17)
```

5.33 src/store/raspberry_pi_store.js File Reference

Functions

- function async [main](#) ()
- window api [onConnection](#) ((value)=> { value=JSON.parse(value);console.log(value);raspberrypi_uuid↔list.update((list)=> { list.push(value.uuid);return list;});})
- window api [onDisconnection](#) ((value)=> { value=JSON.parse(value);console.log(value);raspberrypi_uuid↔_list.update((list)=> { list=list.filter((uuid)=> uuid !==value.uuid);return list;});})

Variables

- `import { writable } from 'svelte/store'`
- `export const raspberry_pi_uuid_list = writable([])`
- `export const selected_raspberry_pi_uuid = writable("")`

5.33.1 Function Documentation

5.33.1.1 main()

```
function async main ( )
```

5.33.1.2 onConnection()

```
window api onConnection (
    (value) ,
    { value=JSON.parse(value);console.log(value);raspberry_pi_uuid_list.update((list)=>
{ list.push(value.uuid);return list;});} )
```

5.33.1.3 onDisconnection()

```
window api onDisconnection (
    (value) ,
    { value=JSON.parse(value);console.log(value);raspberry_pi_uuid_list.update((list)=>
{ list=list.filter((uuid)=> uuid !==value.uuid);return list;});} )
```

5.33.2 Variable Documentation

5.33.2.1 import

```
import { writable } from 'svelte/store'
```

5.33.2.2 raspberry_pi_uuid_list

```
export const raspberry_pi_uuid_list = writable([])
```


5.33.2.3 selected_raspberry_pi_uuid

```
export const selected_raspberry_pi_uuid = writable("")
```

5.34 src/store/websocket_store.js File Reference

Functions

- function async [main](#) ()
- window api [onMessage](#) ((value)=> { value=JSON.parse(value);lidar_stream.set(value.lidar);camera_↵stream.set(value.frame_buffer);})

Variables

- [import](#) { writable } from 'svelte/store'
- export const [websocket_server_connection_state](#) = writable(false)
- export const [websocket_server_port](#) = writable(3000)
- export const [websocket_server_code](#) = writable(-1)
- export const [lidar_stream](#) = writable([])
- export const [camera_stream](#) = writable("")

5.34.1 Function Documentation

5.34.1.1 main()

```
function async main ( )
```

5.34.1.2 onMessage()

```
window api onMessage (  
    (value) ,  
    { value=JSON.parse(value);lidar_stream.set(value.lidar);camera_stream.set(value.↵  
frame_buffer);} )
```

5.34.2 Variable Documentation

5.34.2.1 camera_stream

```
export const camera_stream = writable("")
```

5.34.2.2 import

```
import { writable } from 'svelte/store'
```

5.34.2.3 lidar_stream

```
export const lidar_stream = writable([])
```

5.34.2.4 websocket_server_code

```
export const websocket_server_code = writable(-1)
```

5.34.2.5 websocket_server_connection_state

```
export const websocket_server_connection_state = writable(false)
```

5.34.2.6 websocket_server_port

```
export const websocket_server_port = writable(3000)
```

Index

- app
 - main.js, [19](#)
- base_path
 - behaviour_tree.js, [15](#)
- behaviour_tree.js
 - base_path, [15](#)
 - const, [15](#)
 - exec, [15](#)
 - fs, [15](#)
 - getBehaviourTreeList, [13](#)
 - handle, [13](#)
 - isDev, [14](#)
 - Os, [15](#)
 - path, [16](#)
 - removeBehaviourTree, [14](#)
 - resources_dir, [16](#)
 - saveBehaviourTree, [14](#)
 - sendBehaviourTree, [14](#)
 - startBehaviourTree, [14](#)
 - stopBehaviourTree, [14](#)
 - updateBehaviourTreeList, [14](#)
 - validateBehaviourTree, [15](#)
- behaviour_tree_list
 - behaviour_tree_store.js, [29](#)
- behaviour_tree_save_modal_code
 - behaviour_tree_store.js, [30](#)
- behaviour_tree_store.js
 - behaviour_tree_list, [29](#)
 - behaviour_tree_save_modal_code, [30](#)
 - behaviour_tree_xml_code, [30](#)
 - import, [30](#)
 - main, [29](#)
 - show_behaviour_tree_save_modal, [30](#)
- behaviour_tree_xml_code
 - behaviour_tree_store.js, [30](#)
- camera_stream
 - websocket_store.js, [33](#)
- close
 - WebSocketServer, [8](#)
- closeWebSocketServer
 - websocket_events.js, [22](#)
- Code, [7](#)
 - constructor, [7](#)
 - generate, [7](#)
 - get, [7](#)
- CodeBox_Constants.js
 - condition_operator_types, [26](#)
 - import, [26](#)
 - node_hover, [26](#)
 - node_information_list, [26](#)
 - range_0_100, [27](#)
 - range_0_180, [27](#)
 - range_0_360, [27](#)
- commonjs
 - rollup.config.js, [24](#)
- condition_operator_types
 - CodeBox_Constants.js, [26](#)
- connect
 - WebSocketServer, [8](#)
- const
 - behaviour_tree.js, [15](#)
 - main.js, [18](#)
 - raspberry_pi.js, [21](#)
 - websocket_events.js, [23](#)
- constructor
 - Code, [7](#)
 - WebSocketServer, [8](#)
- createWindow
 - main.js, [17](#)
- default
 - rollup.config.js, [24](#)
 - routes.js, [28](#)
- device.js
 - exports, [17](#)
 - getLocalIPList, [16](#)
 - handle, [16](#)
 - os, [17](#)
- exec
 - behaviour_tree.js, [15](#)
- exports
 - device.js, [17](#)
 - websocket.js, [22](#)
- fs
 - behaviour_tree.js, [15](#)
- generate
 - Code, [7](#)
- generateCode
 - WebSocketServer, [9](#)
- get
 - Code, [7](#)
- getBehaviourTreeList
 - behaviour_tree.js, [13](#)
- getCode
 - WebSocketServer, [9](#)

- getLocalIPList
 - device.js, 16
- getPort
 - WebSocketServer, 9
- getRandomInt
 - websocket.js, 21
- getRaspberryPiList
 - raspberry_pi.js, 20
- getRaspberryPiMap
 - WebSocketServer, 9
- getSelectedRaspberryPi
 - raspberry_pi.js, 20
 - WebSocketServer, 9
- getWebSocketServer
 - websocket_events.js, 22
- handle
 - behaviour_tree.js, 13
 - device.js, 16
 - raspberry_pi.js, 20
 - websocket_events.js, 23
- home_store.js
 - import, 30
 - lidar_toggle, 31
 - main_pane_size_0_store, 31
 - main_pane_size_1_store, 31
 - side_pane_size_0_store, 31
 - side_pane_size_1_store, 31
- import
 - behaviour_tree_store.js, 30
 - CodeBox_Constants.js, 26
 - home_store.js, 30
 - raspberry_pi_store.js, 32
 - rollup.config.js, 24
 - websocket_store.js, 34
- isConnected
 - WebSocketServer, 10
- isDev
 - behaviour_tree.js, 14
 - main.js, 17
- js/behaviour_tree.js, 13
- js/device.js, 16
- js/main.js, 17
- js/preload.js, 19
- js/raspberry_pi.js, 19
- js/store.js, 21
- js/websocket.js, 21
- js/websocket_events.js, 22
- lidar_stream
 - websocket_store.js, 34
- lidar_toggle
 - home_store.js, 31
- livereload
 - rollup.config.js, 24
- loadURL
 - main.js, 18
- main
 - behaviour_tree_store.js, 29
 - raspberry_pi_store.js, 32
 - websocket_store.js, 33
- main.js
 - app, 19
 - const, 18
 - createWindow, 17
 - isDev, 17
 - loadURL, 18
 - on, 18
 - onClose, 18
 - path, 18
 - pcss, 19
 - serve, 18
 - svelte, 19
- main_pane_size_0_store
 - home_store.js, 31
- main_pane_size_1_store
 - home_store.js, 31
- node_hover
 - CodeBox_Constants.js, 26
- node_information_list
 - CodeBox_Constants.js, 26
- on
 - main.js, 18
- onClose
 - main.js, 18
- onConnection
 - raspberry_pi_store.js, 32
- onDisconnection
 - raspberry_pi_store.js, 32
- only
 - rollup.config.js, 25
- onMessage
 - websocket_store.js, 33
- Os
 - behaviour_tree.js, 15
- os
 - device.js, 17
- path
 - behaviour_tree.js, 16
 - main.js, 18
- pcss
 - main.js, 19
- polyfills
 - rollup.config.js, 25
- production
 - rollup.config.js, 25
- range_0_100
 - CodeBox_Constants.js, 27
- range_0_180
 - CodeBox_Constants.js, 27
- range_0_360
 - CodeBox_Constants.js, 27

- raspberrypi.js
 - const, 21
 - getRaspberryPiList, 20
 - getSelectedRaspberryPi, 20
 - handle, 20
 - selectRaspberryPi, 20
 - unselectRaspberryPi, 20
- raspberrypi_store.js
 - import, 32
 - main, 32
 - onConnection, 32
 - onDisconnection, 32
 - raspberrypi_uuid_list, 32
 - selected_raspberrypi_uuid, 32
- raspberrypi_uuid_list
 - raspberrypi_store.js, 32
- README.md, 23
- removeBehaviourTree
 - behaviour_tree.js, 14
- resolve
 - rollup.config.js, 25
- resources_dir
 - behaviour_tree.js, 16
- rollup.config.js, 23
 - commonjs, 24
 - default, 24
 - import, 24
 - livereload, 24
 - only, 25
 - polyfills, 25
 - production, 25
 - resolve, 25
 - serve, 24
 - svelte, 25
 - tailwindConfig, 25
 - tailwindcss, 25
- routes.js
 - default, 28
 - svelte, 28
- saveBehaviourTree
 - behaviour_tree.js, 14
- selected_raspberrypi_uuid
 - raspberrypi_store.js, 32
- selectRaspberryPi
 - raspberrypi.js, 20
 - WebSocketServer, 10
- sendBehaviourTree
 - behaviour_tree.js, 14
 - WebSocketServer, 10
- serve
 - main.js, 18
 - rollup.config.js, 24
- show_behaviour_tree_save_modal
 - behaviour_tree_store.js, 30
- side_pane_size_0_store
 - home_store.js, 31
- side_pane_size_1_store
 - home_store.js, 31
- src/App.svelte, 26
- src/lib/BehaviourTreeHandler.svelte, 26
- src/lib/CodeBox_Constants.js, 26
- src/lib/home/CodeBox.svelte, 28
- src/lib/home/CodeMessagingBar.svelte, 28
- src/lib/home/Stream.svelte, 28
- src/lib/IPList.svelte, 28
- src/lib/NavigationBar.svelte, 28
- src/lib/RaspberryPiConnectBanner.svelte, 28
- src/lib/RaspberryPiSelector.svelte, 28
- src/lib/SaveBehaviourTreeModal.svelte, 28
- src/lib/validate/CodeBox.svelte, 28
- src/lib/validate/CodeButton.svelte, 28
- src/lib/WebsocketServerConfig.svelte, 28
- src/main.js, 19
- src/routes.js, 28
- src/routes/Home.svelte, 29
- src/routes/NotFound.svelte, 29
- src/routes/Validate.svelte, 29
- src/routes/Websocket.svelte, 29
- src/store/behaviour_tree_store.js, 29
- src/store/home_store.js, 30
- src/store/raspberrypi_store.js, 31
- src/store/websocket_store.js, 33
- startBehaviourTree
 - behaviour_tree.js, 14
 - WebSocketServer, 10
- startConnections
 - WebSocketServer, 11
- startWebSocketServer
 - websocket_events.js, 23
- stopBehaviourTree
 - behaviour_tree.js, 14
 - WebSocketServer, 11
- svelte
 - main.js, 19
 - rollup.config.js, 25
 - routes.js, 28
- tailwindConfig
 - rollup.config.js, 25
- tailwindcss
 - rollup.config.js, 25
- tcpPortUsed
 - websocket_events.js, 23
- unselectRaspberryPi
 - raspberrypi.js, 20
- updateBehaviourTreeList
 - behaviour_tree.js, 14
- validateBehaviourTree
 - behaviour_tree.js, 15
- WebSocket
 - websocket.js, 22
- websocket.js
 - exports, 22
 - getRandomInt, 21

- WebSocket, [22](#)
- websocket_events.js
 - closeWebSocketServer, [22](#)
 - const, [23](#)
 - getWebSocketServer, [22](#)
 - handle, [23](#)
 - startWebSocketServer, [23](#)
 - tcpPortUsed, [23](#)
- websocket_server_code
 - websocket_store.js, [34](#)
- websocket_server_connection_state
 - websocket_store.js, [34](#)
- websocket_server_port
 - websocket_store.js, [34](#)
- websocket_store.js
 - camera_stream, [33](#)
 - import, [34](#)
 - lidar_stream, [34](#)
 - main, [33](#)
 - onMessage, [33](#)
 - websocket_server_code, [34](#)
 - websocket_server_connection_state, [34](#)
 - websocket_server_port, [34](#)
- WebSocketServer, [8](#)
 - close, [8](#)
 - connect, [8](#)
 - constructor, [8](#)
 - generateCode, [9](#)
 - getCode, [9](#)
 - getPort, [9](#)
 - getRaspberryPiMap, [9](#)
 - getSelectedRaspberryPi, [9](#)
 - isConnected, [10](#)
 - selectRaspberryPi, [10](#)
 - sendBehaviourTree, [10](#)
 - startBehaviourTree, [10](#)
 - startConnections, [11](#)
 - stopBehaviourTree, [11](#)