Admin Panel

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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

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Chapter 3

File Index

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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

{number}	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

{any[ ]}	behaviour_tree_list

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

{number}	min
{number}	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 public/index.html File Reference

5.11 README.md File Reference

5.12 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

5.12.1 Function Documentation

5.12.1.1 serve()

```
function serve ( )
```

5.12.2 Variable Documentation

5.12.2.1 commonjs

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

5.12.2.2 default

```
export default
```

5.12.2.3 import

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

5.12.2.4 livereload

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

5.12.2.5 only

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

5.12.2.6 polyfills

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

5.12.2.7 production

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

5.12.2.8 resolve

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

5.12.2.9 svelte

```
import RaspberryPiSelector from lib RaspberryPiSelector svelte
```

5.12.2.10 tailwindConfig

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

5.12.2.11 tailwindcss

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

5.13 src/App.svelte File Reference

Functions

- media (min-width:640px)

Variables

- < script > import NavigationBar from lib NavigationBar svelte
- import Router from svelte spa router
- import routes from routes
- </script >< NavigationBar/>< main >< Router {routes}/></main >< style > main
- max width
- margin __pad0__
- height __pad1__

5.13.1 Function Documentation

5.13.1.1 media()

```
media (
             min-width:640px  )
```

5.13.2 Variable Documentation

5.13.2.1 __pad0__

```
margin __pad0__
```

5.13.2.2 __pad1__

```
height __pad1__
```

5.13.2.3 main

```
main
```

Initial value:

```
{
        text-align: center
```

5.13.2.4 router

```
import Router from svelte spa router
```

5.13.2.5 routes

```
import routes from routes
```

5.13.2.6 svelte

```
<script> import NavigationBar from lib NavigationBar svelte
```

5.13.2.7 width

```
max width
```

5.14 src/lib/BehaviourTreeHandler.svelte File Reference

Functions

- </script > <Button on:click={()=> behaviour_tree_save_modal_code set ($behaviour_tree_xml_code)

Variables

- < script > import { Button, Card } from "flowbite-svelte"

5.14.1 Function Documentation

5.14.1.1 set()

```
</script >< div class="w-full h-full bg-white dark:bg-gray-800">< Button on:click={()=>
behaviour_tree_save_modal_code set (
              $behaviour_tree_xml_code )
```

5.14.2 Variable Documentation

5.14.2.1 import

```
import { Button, Card } from "flowbite-svelte"
```

5.15 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

5.15.1 Variable Documentation

5.15.1.1 condition_operator_types

```
export const condition_operator_types
```

5.15.1.2 import

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

5.15.1.3 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 };
        },
    };
})
```

5.15.1.4 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>}

5.15.1.5 range_0_100

```
export const range_0_100
```

5.15.1.6 range_0_180

```
export const range_0_180
```

5.15.1.7 range_0_360

```
export const range_0_360
```

5.16 src/lib/home/CodeBox.svelte File Reference

Variables

- < script > import CodeMirror from svelte codemirror editor
- import { xml } from "@codemirror/lang-xml"
- import CodeMessagingBar from CodeMessagingBar svelte
- cm editor ∗cm scroller

5.16.1 Variable Documentation

5.16.1.1 editor

```
</script >< div class="h-full m-1">< CodeButton/>< CodeMirror class="text-left h-full flex-auto
font-mono text-lg font-bold" bind:value={ $behaviour_tree_xml_code} lang={xml(xml_schema)}
tabSize={4} theme={oneDark} extensions={[node_hover]}/>< style > cm editor
```

Initial value:

```
{
            height: 90% !important
```

5.16.1.2 import

```
import { xml } from "@codemirror/lang-xml"
```

5.16.1.3 scroller

```
cm editor* cm scroller
```

Initial value:

```
{
            height: 100% !important
```

5.16.1.4 svelte

```
import CodeMessagingBar from CodeMessagingBar svelte
```

5.17 src/lib/validate/CodeBox.svelte File Reference

Variables

- < script > import CodeMirror from svelte codemirror editor
- import { xml } from "@codemirror/lang-xml"
- import CodeButton from CodeButton svelte
- cm editor ∗cm scroller

5.17.1 Variable Documentation

5.17.1.1 editor

```
</script><div class="h-full m-1"><CodeButton/><CodeMirror class="text-left h-full flex-auto
font-mono text-lg font-bold" bind:value={$behaviour_tree_xml_code} lang={xml(xml_schema)}
tabSize={4} theme={oneDark} extensions={[node_hover]} /><style> cm editor
```

Initial value:

```
{
            height: 90% !important
```

5.17.1.2 import

```
import { xml } from "@codemirror/lang-xml"
```

5.17.1.3 scroller

```
cm editor* cm scroller
```

Initial value:

```
{
            height: 100% !important
```

5.17.1.4 svelte

```
import CodeButton from CodeButton svelte
```

5.18 src/lib/home/CodeMessagingBar.svelte File Reference

Functions

- async function sendBehaviourTree ()
- async function startBehaviourTree ()
- async function stopBehaviourTree ()

Variables

- < script > import { selected_raspberry_pi_uuid } from "../../store/raspberry_pi_store"
- import xmlFormat from xml formatter
- let send_behaviour_tree_text = "Send Behaviour Tree"
- let send_behaviour_tree_color = "#50AA34"
- let send_behaviour_tree_debounce = false
- let start_behaviour_tree_text = "Start Behaviour Tree"
- let start_behaviour_tree_color = "#89AAFF"
- let start_behaviour_tree_debounce = false

5.18.1 Function Documentation

5.18.1.1 sendBehaviourTree()

```
async function sendBehaviourTree ( )
```

5.18.1.2 startBehaviourTree()

```
async function startBehaviourTree ( )
```

5.18.1.3 stopBehaviourTree()

```
async function stopBehaviourTree ( )
```

5.18.2 Variable Documentation

5.18.2.1 formatter

```
import xmlFormat from xml formatter
```

5.18.2.2 import

```
import { selected_raspberry_pi_uuid } from "../../store/raspberry_pi_store"
```

5.18.2.3 send_behaviour_tree_color

```
let send_behaviour_tree_color = "#50AA34"
```

@type {string}

5.18.2.4 send_behaviour_tree_debounce

```
let send_behaviour_tree_debounce = false
```

@type {boolean}

5.18.2.5 send_behaviour_tree_text

```
let send_behaviour_tree_text = "Send Behaviour Tree"
```

@type {string}

5.18.2.6 start_behaviour_tree_color

```
let start_behaviour_tree_color = "#89AAFF"
```

@type {string}

5.18.2.7 start_behaviour_tree_debounce

```
let start_behaviour_tree_debounce = false
```

@type {boolean}

5.18.2.8 start_behaviour_tree_text

```
let start_behaviour_tree_text = "Start Behaviour Tree"
```

@type {string}

5.19 src/lib/home/Stream.svelte File Reference

Functions

- function b64toBlob (b64Data, contentType="", sliceSize=512)
- function handleLiveFeed (live_feed)
- function shadeColor (color, decimal)
- function round0_25 (num)
- function drawLidarWall (x, lidar_canvas_midpoint_y, distance)
- function subscribeLidarDrawing ()
- function handleLidar (lidar_canvas)
- function toggleLidar ()
- function updateAspectRatio ()
- main_pane_size_0_store subscribe (updateAspectRatio)
- onMount (updateAspectRatio)

Variables

- < script > import { onMount } from "svelte"
- const lidar_wall_colour = "#0061FF"
- const offset_angle = 45
- const fps = 30
- const fps_interval = 1000 / fps
- let lidar_bar_height_size = 20000
- let live_feed_ = null
- let lidar_canvas_ = null
- let lidar_context_ = null
- let last_seen_points = [ ]
- let lidar_draw_disconnect = null
- let lidar_toggle_icon
- let stream_div_ = null

5.19.1 Function Documentation

5.19.1.1 b64toBlob()

```
function b64toBlob (
            b64Data ,
            contentType  = "",
            sliceSize  = 512 )
```

Parameters

{string}	b64Data
{string}	contentType
{number}	sliceSize

5.19.1.2 drawLidarWall()

```
function drawLidarWall (
            x ,
            lidar_canvas_midpoint_y ,
            distance  )
```

Parameters

{number}	x
{number}	lidar_canvas_midpoint↩ _y
{number}	height

5.19.1.3 handleLidar()

```
function handleLidar (
            lidar_canvas  )
```

5.19.1.4 handleLiveFeed()

```
function handleLiveFeed (
            live_feed  )
```

5.19.1.5 onMount()

```
onMount (
            updateAspectRatio  )
```

5.19.1.6 round0_25()

```
function round0_25 (
            num  )
```

Parameters

{number}	num

5.19.1.7 shadeColor()

```
function shadeColor (
            color ,
            decimal  )
```

@description From: https://stackoverflow.com/a/69123384

Parameters

{string}	color Hex value format: #ffffff or ffffff
{number}	decimal lighten or darken decimal value, example 0.5 to lighten by 50% or 1.5 to darken by 50%.

Returns

{string} Hex value of the new color

5.19.1.8 subscribe()

```
main_pane_size_0_store subscribe (
            updateAspectRatio  )
```

5.19.1.9 subscribeLidarDrawing()

```
function subscribeLidarDrawing ( )
```

@type {Array<Point>}

@type {Map<number, Point>}

5.19.1.10 toggleLidar()

```
function toggleLidar ( )
```

5.19.1.11 updateAspectRatio()

```
function updateAspectRatio ( )
```

5.19.2 Variable Documentation

5.19.2.1 fps

```
const fps = 30
```

5.19.2.2 fps_interval

```
const fps_interval = 1000 / fps
```

5.19.2.3 import

```
import { onMount } from "svelte"
```

5.19.2.4 last_seen_points

```
let last_seen_points = []
```

5.19.2.5 lidar_bar_height_size

```
let lidar_bar_height_size = 20000
```

5.19.2.6 lidar_canvas_

```
let lidar_canvas_ = null
```

@type {HTMLCanvasElement}

5.19.2.7 lidar_context_

```
let lidar_context_ = null
```

@type {CanvasRenderingContext2D}

5.19.2.8 lidar_draw_disconnect

```
let lidar_draw_disconnect = null
```

5.19.2.9 lidar_toggle_icon

```
let lidar_toggle_icon
```

Initial value:

```
= $lidar_toggle
        ? "favicon.png"
        : "greyed_favicon.png"
```

5.19.2.10 lidar_wall_colour

```
const lidar_wall_colour = "#0061FF"
```

5.19.2.11 live_feed_

```
let live_feed_ = null
```

@type {HTMLImageElement}

5.19.2.12 offset_angle

```
const offset_angle = 45
```

5.19.2.13 stream_div_

```
let stream_div_ = null
```

@type {HTMLDivElement}

5.20 src/lib/IPList.svelte File Reference

Functions

- if (api.getLocalIPList===undefined)
- function refreshIPList ()
- function updateIPList ()

Variables

- < script > import { Button, Card, Spinner, Tooltip } from "flowbite-svelte"
- export let getIPList = updateIPList()

5.20.1 Function Documentation

5.20.1.1 if()

```
if (
            api.  getLocalIPList = == undefined )
```

5.20.1.2 refreshIPList()

```
function refreshIPList ( )
```

5.20.1.3 updateIPList()

```
function updateIPList ( )
```

5.20.2 Variable Documentation

5.20.2.1 getIPList

```
export let getIPList = updateIPList()
```

5.20.2.2 import

```
import { Button, Card, Spinner, Tooltip } from "flowbite-svelte"
```

5.21 src/lib/NavigationBar.svelte File Reference

Variables

- < script > import

5.21.1 Variable Documentation

5.21.1.1 import

```
<script> import
```

Initial value:

```
{
    DarkMode,
    Navbar,
    NavLi,
    NavUl,
    NavHamburger,
  } from "flowbite-svelte"
```

5.22 src/lib/RaspberryPiConnectBanner.svelte File Reference

Variables

- < script > import { Banner, Button } from "flowbite-svelte"

5.22.1 Variable Documentation

5.22.1.1 import

```
import { Banner, Button } from "flowbite-svelte"
```

5.23 src/lib/RaspberryPiSelector.svelte File Reference

Functions

- async function connectToRaspberryPi ()

Variables

- < script > import { Button, Card } from "flowbite-svelte"
- let selected_uuid = ""

5.23.1 Function Documentation

5.23.1.1 connectToRaspberryPi()

```
async function connectToRaspberryPi ( )
```

5.23.2 Variable Documentation

5.23.2.1 import

```
import { Button, Card } from "flowbite-svelte"
```

5.23.2.2 selected_uuid

```
let selected_uuid = ""
```

@type {string}

5.24 src/lib/SaveBehaviourTreeModal.svelte File Reference

Functions

- </script >< Modal title="Save Behaviour Tree" bind:open={ $show_behaviour_tree_save_modal} auto-close >< p class="text-base leading-relaxed text-gray-500 dark:text-gray-400"> Would you like to save this behaviour tree</p >< Input let:props >< input type="text" {...props} placeholder="Behaviour Tree Name:" bind:value={behaviour_tree_name} required/></Input >< CodeMirror class="text-left h-full flex-auto font-mono text-lg font-bold" bind:value={ $behaviour_tree_save_modal_code} lang={xml(xml_schema)} tabSize={4} theme={oneDark} extensions={[node_hover]}/>< svelte:fragment slot="footer">< Button on↩ :click={()=> api saveBehaviourTree (behaviour_tree_save_state)
- behaviour_tree_list set ([... $behaviour_tree_list, behaviour_tree_save_state])

Variables

- < script > import { Button, Input, Modal } from "flowbite-svelte"
- import CodeMirror from svelte codemirror editor
- let behaviour_tree_name = ""

5.24.1 Function Documentation

5.24.1.1 saveBehaviourTree()

```
</script >< Modal title="Save Behaviour Tree" bind:open={ $show_behaviour_tree_save_modal}
autoclose >< p class="text-base leading-relaxed text-gray-500 dark:text-gray-400"> Would
you like to save this behaviour tree</p >< Input let:props >< input type="text" {...props}
placeholder="Behaviour Tree Name:" bind:value={behaviour_tree_name} required/></Input ><
CodeMirror class="text-left h-full flex-auto font-mono text-lg font-bold" bind:value={ $behaviour_tree_save_mo
lang={xml(xml_schema)} tabSize={4} theme={oneDark} extensions={[node_hover]}/>< svelte:fragment
slot="footer">< Button on:click={()=> api saveBehaviourTree (
            behaviour_tree_save_state  )
```

5.24.1.2 set()

```
behaviour_tree_list set ( )
```

5.24.2 Variable Documentation

5.24.2.1 behaviour_tree_name

```
let behaviour_tree_name = ""
```

5.24.2.2 editor

```
import CodeMirror from svelte codemirror editor
```

5.24.2.3 import

```
import { Button, Input, Modal } from "flowbite-svelte"
```

5.25 src/lib/validate/CodeButton.svelte File Reference

Functions

- async function validateBehaviourTree ()

Variables

- < script > import xmlFormat from xml formatter
- import { behaviour_tree_xml_code } from "../../store/behaviour_tree_store"
- let validate_behaviour_tree_text = "Validate Behaviour Tree"
- let validate_behaviour_tree_color = "#4C9CFF"
- let validate_behaviour_tree_debounce = false

5.25.1 Function Documentation

5.25.1.1 validateBehaviourTree()

```
async function validateBehaviourTree ( )
```

5.25.2 Variable Documentation

5.25.2.1 formatter

```
<script> import xmlFormat from xml formatter
```

5.25.2.2 import

```
import { behaviour_tree_xml_code } from "../../store/behaviour_tree_store"
```

5.25.2.3 validate_behaviour_tree_color

```
let validate_behaviour_tree_color = "#4C9CFF"
```

@type {string}

5.25.2.4 validate_behaviour_tree_debounce

```
let validate_behaviour_tree_debounce = false
```

@type {boolean}

5.25.2.5 validate_behaviour_tree_text

```
let validate_behaviour_tree_text = "Validate Behaviour Tree"
```

@type {string}

5.26 src/lib/WebsocketServerConfig.svelte File Reference

Functions

- function displayWebsocketServerStatus ()
- websocket_server_connection_state subscribe (displayWebsocketServerStatus)
- async function toggleWebsocketServer ()

Variables

- < script > import { Label, Input, Button, Helper } from "flowbite-svelte"
- let websocketServerPort = $websocket_server_port
- let toggleWebsocketServerMessage = "Start Websocket Server"
- let helperText = ""
- let websocketServerPortInputColor = ""

5.26.1 Function Documentation

5.26.1.1 displayWebsocketServerStatus()

```
function displayWebsocketServerStatus ( )
```

5.26.1.2 subscribe()

```
websocket_server_connection_state subscribe (
            displayWebsocketServerStatus  )
```

5.26.1.3 toggleWebsocketServer()

```
async function toggleWebsocketServer ( )
```

5.26.2 Variable Documentation

5.26.2.1 helperText

```
let helperText = ""
```

@type {string}

5.26.2.2 import

```
import { Label, Input, Button, Helper } from "flowbite-svelte"
```

5.26.2.3 toggleWebsocketServerMessage

```
let toggleWebsocketServerMessage = "Start Websocket Server"
```

@type {string}

5.26.2.4 websocketServerPort

```
let websocketServerPort = $websocket_server_port
```

@type {number}

5.26.2.5 websocketServerPortInputColor

```
let websocketServerPortInputColor = ""
```

@type {string}

5.27 src/routes.js File Reference

Variables

- import Home from routes Home svelte
- export default

5.27.1 Variable Documentation

5.27.1.1 default

```
export default
```

Initial value:

```
{
    '/': Home,
    '/websocket': Websocket,
    '/validate': Validate,

    '*': NotFound
}
```

5.27.1.2 svelte

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

5.28 src/routes/Home.svelte File Reference

Functions

- function onMainResize (event)
- function onSideResize (event)

Variables

- < script > import BehaviourTreeHandler from lib BehaviourTreeHandler svelte
- import { websocket_server_connection_state } from "../store/websocket_store"
- let stream_split_height = 0
- let stream_split_width = 0
- let main_pane_size_0 = $main_pane_size_0_store
- let main_pane_size_1 = $main_pane_size_1_store
- let side_pane_size_0 = $side_pane_size_0_store
- let side_pane_size_1 = $side_pane_size_1_store

5.28.1 Function Documentation

5.28.1.1 onMainResize()

```
function onMainResize (
            event  )
```

5.28.1.2 onSideResize()

```
function onSideResize (
             event  )
```

5.28.2 Variable Documentation

5.28.2.1 import

```
import { websocket_server_connection_state } from "../store/websocket_store"
```

5.28.2.2 main_pane_size_0

```
let main_pane_size_0 = $main_pane_size_0_store
```

5.28.2.3 main_pane_size_1

```
let main_pane_size_1 = $main_pane_size_1_store
```

5.28.2.4 side_pane_size_0

```
let side_pane_size_0 = $side_pane_size_0_store
```

5.28.2.5 side_pane_size_1

```
let side_pane_size_1 = $side_pane_size_1_store
```

5.28.2.6 stream_split_height

```
let stream_split_height = 0
```

@type {number}

5.28.2.7 stream_split_width

```
let stream_split_width = 0
```

@type {number}

5.28.2.8 svelte

```
import SaveBehaviourTreeModal from lib SaveBehaviourTreeModal svelte
```

5.29 src/routes/NotFound.svelte File Reference

Variables

- < h1 > Not Found</h1 >< p > This route doesn t exist</p >< style > h1
- text transform
- font size
- font weight

5.29.1 Variable Documentation

5.29.1.1 h1

```
<h1> Not Found</h1><p> This route doesn t exist</p><style> h1
```

Initial value:

```
{
        color: #ff0040
```

5.29.1.2 size

```
font size
```

5.29.1.3 transform

```
text transform
```

5.29.1.4 weight

```
font weight
```

5.30 src/routes/Validate.svelte File Reference

Functions

- function onSideResize (event)

Variables

- < script > import BehaviourTreeHandler from lib BehaviourTreeHandler svelte
- import
- let side_pane_size_0 = $side_pane_size_0_store
- let side_pane_size_1 = $side_pane_size_1_store

5.30.1 Function Documentation

5.30.1.1 onSideResize()

```
function onSideResize (
             event  )
```

5.30.2 Variable Documentation

5.30.2.1 import

```
import
```

Initial value:

```
{
        side_pane_size_0_store,
        side_pane_size_1_store,
    } from "../store/home_store"
```

5.30.2.2 side_pane_size_0

```
let side_pane_size_0 = $side_pane_size_0_store
```

5.30.2.3 side_pane_size_1

```
let side_pane_size_1 = $side_pane_size_1_store
```

5.30.2.4 svelte

```
import CodeBox from lib validate CodeBox svelte
```

5.31 src/routes/Websocket.svelte File Reference

Variables

- < script > import IPList from lib IPList svelte

5.31.1 Variable Documentation

5.31.1.1 svelte

```
import RaspberryPiSelector from lib RaspberryPiSelector svelte
```

5.32 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([ ])

5.32.1 Function Documentation

5.32.1.1 main()

```
function async main ( )
```

5.32.2 Variable Documentation

5.32.2.1 behaviour_tree_list

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

5.32.2.2 behaviour_tree_save_modal_code

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

5.32.2.3 behaviour_tree_xml_code

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

5.32.2.4 import

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

5.32.2.5 show_behaviour_tree_save_modal

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

5.33 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)

5.33.1 Variable Documentation

5.33.1.1 import

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

5.33.1.2 lidar_toggle

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

5.33.1.3 main_pane_size_0_store

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

5.33.1.4 main_pane_size_1_store

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

5.33.1.5 side_pane_size_0_store

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

5.33.1.6 side_pane_size_1_store

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

5.34 src/store/raspberry_pi_store.js File Reference

Functions

- function async main ()
- window api onConnection ((value)=> { value=JSON.parse(value);console.log(value);raspberry_pi_uuid_↩ list.update((list)=> { list.push(value.uuid);return list;});})
- 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;});})

Variables

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

5.34.1 Function Documentation

5.34.1.1 main()

```
function async main ( )
```

5.34.1.2 onConnection()

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

5.34.1.3 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;});}  )
```

5.34.2 Variable Documentation

5.34.2.1 import

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

5.34.2.2 raspberry_pi_uuid_list

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

5.34.2.3 selected_raspberry_pi_uuid

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

5.35 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("")

5.35.1 Function Documentation

5.35.1.1 main()

```
function async main ( )
```

5.35.1.2 onMessage()

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

5.35.2 Variable Documentation

5.35.2.1 camera_stream

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

5.35.2.2 import

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

5.35.2.3 lidar_stream

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

5.35.2.4 websocket_server_code

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

5.35.2.5 websocket_server_connection_state

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

5.35.2.6 websocket_server_port

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

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