

## Structure of Marvelmind software package

Release date 2025.12.03

File/folder	Description
<b>Common indoor positioning software</b>	
<a href="#">01_Dashboard</a>	Folder with Dashboard software
<a href="#">01_Dashboard\01_windows</a>	Folder with Dashboard software for Windows
<a href="#">01_Dashboard\01_windows\dashboard_64bit_exe</a>	Folder with portable executable Dashboard software for Windows (64 bit)
<a href="#">01_Dashboard\01_windows\dashboard_64bit_exe\dashapi.dll</a>	API library (Windows) for Dashboard (64 bit). Can be used by 3-rd party software for communication with Marvelmind system without Dashboard (see API section)
<a href="#">01_Dashboard\01_windows\dashboard_64bit_exe\dashboard.exe</a>	Dashboard software for Windows (64 bit). Portable executable.
<a href="#">01_Dashboard\01_windows\install_dashboard_64bit.exe</a>	Dashboard software (for Windows, 64 bit). Installer file. The installer installs Dashboard on the computer, installs serial port driver, places shortcut on the desktop.
<a href="#">01_Dashboard\02_linux</a>	Folder with Dashboard software for Linux
<a href="#">01_Dashboard\02_linux\dashboard_linux_manual_v2019_05_14.pdf</a>	Manual for Linux version of Dashboard
<a href="#">01_Dashboard\02_linux\x86</a>	Folder with Dashboard software for

	Linux on x86 hardware
<a href="#">01_Dashboard\02_linux\x86\libdashapi.so</a>	API library (Linux x86) for Dashboard.
<a href="#">01_Dashboard\02_linux\x86\dashboard_x86</a>	Dashboard software for Linux x86.
<a href="#">01_Dashboard\02_linux\arm32</a>	Folder with Dashboard software for Linux on Arm32 hardware
<a href="#">01_Dashboard\02_linux\arm32\libdashapi.so</a>	API library (Linux Arm32) for Dashboard.
<a href="#">01_Dashboard\02_linux\arm32\dashboard_arm32</a>	Dashboard software for Linux Arm32.
<a href="#">01_Dashboard\02_linux\arm64</a>	Folder with Dashboard software for Linux on Arm64 hardware
<a href="#">01_Dashboard\02_linux\arm64\libdashapi.so</a>	API library (Linux Arm64) for Dashboard.
<a href="#">01_Dashboard\02_linux\arm64\dashboard_arm64</a>	Dashboard software for Linux Arm64.
<a href="#">02_Modem_hw51</a>	Folder with software for Modem HW v5.1 ( <a href="#">NIA and IA</a> )
<a href="#">02_Modem_hw51\Modem_hw51_915_NIA.hex</a> <a href="#">02_Modem_hw51\DFU\Modem_hw51_915_NIA.dfu</a>	Version of NIA software for <a href="#">modem HW v5.1</a> DFU and hex files are available. 915 MHz default radio bands
<a href="#">02_Modem_hw51\Others\Modem_hw51_Outdoor_915_NIA.hex</a> <a href="#">02_Modem_hw51\Others\DFU\Modem_hw51_Outdoor_915_NIA.dfu</a>	Version of NIA software for <a href="#">modem HW v5.1-Outdoor</a> DFU and hex files are available. 915 MHz default radio bands
<a href="#">02_Modem_hw51\Others\Modem in Super Beacon 915 NIA.hex</a> - for Super-Beacon-1, -2, -3 <a href="#">02_Modem_hw51\Others\DFU\Modem in Super Beacon 915 NIA.dfu</a> - for Super-Beacon-1, -2, -3  Please don't upload firmware for Super-Beacon-1,-2,-3 into the Super-Beacon-4	Version of NIA software for modem in <a href="#">Super-Beacon</a> . Upload this software to use beacon as a modem. DFU and hex files are available. 915 MHz default radio bands
<a href="#">02_Modem_hw51\Modem_hw51_915_IA.hex</a>	Version of IA software for <a href="#">modem</a>

<a href="#">02 Modem hw51\DFU\Modem hw51 915 IA.dfu</a>	<a href="#">HW v5.1</a> DFU and hex files are available. 915 MHz default radio bands
<a href="#">02 Modem hw51\Others\Modem hw51 Outdoor 915 IA.hex</a> <a href="#">02 Modem hw51\Others\DFU\Modem hw51 Outdoor 915 IA.dfu</a>	Version of IA software for <a href="#">modem</a> <a href="#">HW v5.1-Outdoor</a> DFU and hex files are available. 915 MHz default radio bands
<a href="#">02 Modem hw51\Others\Modem in Super Beacon 915 IA.hex</a> - for Super-Beacon-1, -2, -3 <a href="#">02 Modem hw51\Others\DFU\Modem in Super Beacon 915 IA.dfu</a> - for Super-Beacon-1, -2, -3  Please don't upload firmware for Super-Beacon-1,-2,-3 into the Super-Beacon-4	Version of IA software for modem in <a href="#">Super-Beacon</a> . Upload this software to use beacon as a modem. DFU and hex files are available. 915 MHz default radio bands
<a href="#">03 Super-Modem</a>	Folder with software for <a href="#">Super-Modem</a> (same software for both <a href="#">NIA</a> and <a href="#">IA</a> ).
<a href="#">03 Super-Modem\SM supermodem low level rd915MHz.hex</a> <a href="#">03 Super-Modem\DFU\SM supermodem low level rd915MHz.dfu</a>	Low level Super-Modem firmware
<a href="#">03 Super-Modem\SM supermodem high level.gz</a>	High level Super-Modem software
<b>Warning!</b> If your current Super-Modem software version is less than 7.000, you need to reflash micro-SD card inside the Super-Modem for update. Super-Modem Micro-SD card image is supplied in separate archive, because it is pretty large. Please refer to <a href="#">downloads page</a> .	
<a href="#">04 Super Beacon</a>	Folder with software for Super-Beacons ( <a href="#">NIA</a> and <a href="#">IA</a> )
<a href="#">04 Super Beacon\Super Beacon 915 NIA.hex</a> - for Super-Beacon-1, -2, -3 <a href="#">04 Super Beacon\DFU\Super Beacon 915 NIA.dfu</a> - for Super-Beacon-1, -2, -3  <a href="#">04 Super Beacon\Super Beacon 4 915 NIA.hex</a> - for Super-Beacon-4 <a href="#">04 Super Beacon\DFU\Super Beacon 4 915 NIA.dfu</a> - for Super-Beacon-4  Please don't upload firmware files intended for Super-Beacon-4 into Super-Beacon-1, -2 or -3	Version of NIA software for <a href="#">Super-Beacon</a> DFU and hex files are available. 915 MHz default radio band

Similarly, don't upload firmware for Super-Beacon-1,-2,-3 into the Super-Beacon-4	
<a href="#">04 Super Beacon\Others\Super Beacon Outdoor 915 NIA.hex</a> - for Super-Beacon-1, -2, -3 <a href="#">04 Super Beacon\Others\DFU\Super Beacon Outdoor 915 NIA.dfu</a> - for Super-Beacon-1, -2, -3  Please don't upload firmware for Super-Beacon-1,-2,-3 into the Super-Beacon-4	Version of NIA software for <a href="#">Super-Beacon-Outdoor</a> DFU and hex files are available. 915 MHz default radio band
<a href="#">04 Super Beacon\Super Beacon 915 IA.hex</a> - for Super-Beacon-1, -2, -3 <a href="#">04 Super Beacon\DFU\Super Beacon 915 IA.dfu</a> - for Super-Beacon-1, -2, -3  <a href="#">04 Super Beacon\Super Beacon 4 915 IA.hex</a> - for Super-Beacon-4 <a href="#">04 Super Beacon\DFU\Super Beacon 4 915 IA.dfu</a> - for Super-Beacon-4  Please don't upload firmware files intended for Super-Beacon-4 into Super-Beacon-1, -2 or -3 Similarly, don't upload firmware for Super-Beacon-1,-2,-3 into the Super-Beacon-4	Version of IA software for <a href="#">Super-Beacon</a> DFU and hex files are available. 915 MHz default radio band
<a href="#">04 Super Beacon\Others\Super Beacon Outdoor 915 IA.hex</a> - for Super-Beacon-1, -2, -3 <a href="#">04 Super Beacon\Others\DFU\Super Beacon Outdoor 915 IA.dfu</a> - for Super-Beacon-1, -2, -3  Please don't upload firmware for Super-Beacon-1,-2,-3 into the Super-Beacon-4	Version of IA software for <a href="#">Super-Beacon-Outdoor</a> DFU and hex files are available. 915 MHz default radio band
<a href="#">05 Industrial</a>	Folder with software for Industrial beacons ( <a href="#">NIA and IA</a> )
<a href="#">05 Industrial\Industrial Super Beacon 915 NIA.hex</a> - for Industrial Super-Beacon-1, -2, -3 <a href="#">05 Industrial\DFU\Industrial Super Beacon 915 NIA.dfu</a> - for Industrial Super-Beacon-1, -2, -3  <a href="#">05 Industrial\Industrial Super Beacon 4 915 NIA.hex</a> - for Industrial Super-Beacon-4 <a href="#">05 Industrial\DFU\Industrial Super Beacon 4 915 NIA.dfu</a> - for Industrial Super-Beacon-4  Please don't upload firmware files intended for Industrial Super-Beacon-4 into Industrial Super-Beacon-1, -2 or -3 Similarly, don't upload firmware for Industrial Super-Beacon-1,-2,-3 into the Industrial Super-Beacon-4	Version of NIA software for Industrial Super-Beacon ( <a href="#">plastic</a> and <a href="#">metal</a> ) DFU and hex files are available. 915 MHz default radio band
<a href="#">05 Industrial\Industrial RX 915 NIA.hex</a> - for Industrial RX-1, -2, -3 <a href="#">05 Industrial\DFU\Industrial RX 915 NIA.dfu</a> - for Industrial RX-1, -2, -3	Version of NIA software for <a href="#">Beacon Industrial-RX</a> DFU and hex files are available. 915 MHz default radio band
<a href="#">05 Industrial\Industrial RX with Omni 915 NIA.hex</a> - for Industrial RX-1, -2, -3 with Omni <a href="#">05 Industrial\DFU\Industrial RX with Omni 915 NIA.dfu</a> - for Industrial RX-1, -2, -3 with Omni	Version of NIA software for <a href="#">Industrial-RX with Omni</a>

<a href="#">05 Industrial\Industrial RX 4 with Omni 915 NIA.hex</a> - for Industrial RX-4 with Omni <a href="#">05 Industrial\DFU\Industrial RX 4 with Omni 915 NIA.dfu</a> - for Industrial RX-4 with Omni  Please don't upload firmware files intended for Industrial RX-4 with Omni into Industrial RX-1, -2 or -3 with Omni Similarly, don't upload firmware for Industrial RX-1, -2 or -3 with Omni into the Industrial RX-4 with Omni	DFU and hex files are available. 915 MHz default radio band
<a href="#">05 Industrial\Industrial Super Beacon 915 IA.hex</a> - for Industrial Super-Beacon-1, -2, -3 <a href="#">05 Industrial\DFU\Industrial Super Beacon 915 IA.dfu</a> - for Industrial Super-Beacon-1, -2, -3  <a href="#">05 Industrial\Industrial Super Beacon 4 915 IA.hex</a> - for Industrial Super-Beacon-4 <a href="#">05 Industrial\DFU\Industrial Super Beacon 4 915 IA.dfu</a> - for Industrial Super-Beacon-4  Please don't upload firmware files intended for Industrial Super-Beacon-4 into Industrial Super-Beacon-1, -2 or -3 Similarly, don't upload firmware for Industrial Super-Beacon-1,-2,-3 into the Industrial Super-Beacon-4	Version of IA software for Industrial Super-Beacon ( <a href="#">plastic</a> and <a href="#">metal</a> ) DFU and hex files are available. 915 MHz default radio band
<a href="#">05 Industrial\Industrial RX 915 IA.hex</a> - for Industrial RX-1, -2, -3 <a href="#">05 Industrial\DFU\Industrial RX 915 IA.dfu</a> - for Industrial RX-1, -2, -3	Version of IA software for <a href="#">Beacon Industrial-RX</a> DFU and hex files are available. 915 MHz default radio band
<a href="#">05 Industrial\Industrial RX with Omni 915 IA.hex</a> - for Industrial RX-1, -2, -3 with Omni <a href="#">05 Industrial\DFU\Industrial RX with Omni 915 IA.dfu</a> - for Industrial RX-1, -2, -3 with Omni  <a href="#">05 Industrial\Industrial RX 4 with Omni 915 IA.hex</a> - for Industrial RX-4 with Omni <a href="#">05 Industrial\DFU\Industrial RX 4 with Omni 915 IA.dfu</a> - for Industrial RX-4 with Omni  Please don't upload firmware files intended for Industrial RX-4 with Omni into Industrial RX-1, -2 or -3 with Omni Similarly, don't upload firmware for Industrial RX-1, -2 or -3 with Omni into the Industrial RX-4 with Omni	Version of IA software for <a href="#">Industrial-RX with Omni</a> DFU and hex files are available. 915 MHz default radio band
<a href="#">06 Beacon Mini RX</a>	Folder with software for Mini-RX beacons ( <a href="#">NIA and IA</a> )
<a href="#">06 Beacon Mini RX\Beacon Mini RX 915 NIA.hex</a> <a href="#">06 Beacon Mini RX\DFU\Beacon Mini RX 915 NIA.dfu</a>	Version of NIA software for <a href="#">Beacon Mini-RX</a> DFU and hex files are available. 915 MHz default radio band
<a href="#">06 Beacon Mini RX\Others\Beacon Mini RX IP67 915 NIA.hex</a> <a href="#">06 Beacon Mini RX\Others\DFU\Beacon Mini RX IP67 915 NIA.dfu</a>	Version of NIA software for <a href="#">Beacon Mini-RX-IP67</a>

	DFU and hex files are available. 915 MHz default radio band
<a href="#">06 Beacon Mini RX\Beacon Mini RX 915 IA.hex</a> <a href="#">06 Beacon Mini RX\DFU\Beacon Mini RX 915 IA.dfu</a>	Version of IA software for <a href="#">Beacon Mini-RX</a> DFU and hex files are available. 915 MHz default radio band
<a href="#">06 Beacon Mini RX\Others\Beacon Mini RX IP67 915 IA.hex</a> <a href="#">06 Beacon Mini RX\Others\DFU\Beacon Mini RX IP67 915 IA.dfu</a>	Version of IA software for <a href="#">Beacon Mini-RX-IP67</a> DFU and hex files are available. 915 MHz default radio band
<a href="#">07 Beacon Mini TX</a>	Folder with <a href="#">NIA</a> software for Mini-TX beacons
<a href="#">07 Beacon Mini TX\Beacon Mini TX 2 915 NIA.hex</a> <a href="#">07 Beacon Mini TX\DFU\Beacon Mini TX 2 915 NIA.dfu</a>  Please don't upload firmware for Mini-TX-2 firmware into the Mini-TX-1	Version of NIA software for <a href="#">Beacon Mini-TX</a> (new hardware version) DFU and hex files are available. 915 MHz default radio band
<a href="#">07 Beacon Mini TX\Beacon Mini TX 915 NIA.hex</a> <a href="#">07 Beacon Mini TX\DFU\Beacon Mini TX 915 NIA.dfu</a>  Please don't upload firmware for Mini-TX-1 firmware into the Mini-TX-2	Version of NIA software for <a href="#">Beacon Mini-TX</a> (previous hardware version) DFU and hex files are available. 915 MHz default radio band
<a href="#">08 Badge</a>	Folder with <a href="#">IA</a> software for Marvelmind Badge
<a href="#">08 Badge\Badge 915 IA.hex</a> <a href="#">08 Badge\DFU\Badge 915 IA.dfu</a>	Version of IA software for <a href="#">Badge</a> . DFU and hex files are available. 915 MHz default radio band
<a href="#">09 Jacket</a>	Folder with <a href="#">IA</a> software for Marvelmind Jacket
<a href="#">09 Jacket\Jacket 915 IA.hex</a> <a href="#">09 Jacket\DFU\Jacket 915 IA.dfu</a>	Version of IA software for <a href="#">Jacket</a> . DFU and hex files are available. 915 MHz default radio band
<a href="#">10 Watch</a>	Folder with <a href="#">IA</a> software for Marvelmind Watch

<a href="#">10 Watch\Watch 915 IA.hex</a> <a href="#">10 Watch\DFU\Watch 915 IA.dfu</a>	Version of IA software for <a href="#">Watch</a> . DFU and hex files are available. 915 MHz default radio band
<a href="#">11 Belt</a>	Folder with <a href="#">IA</a> software for Marvelmind Belt
<a href="#">11 Belt\Belt 915 IA.hex</a> <a href="#">11 Belt\DFU\Belt 915 IA.dfu</a>	Version of IA software for Belt. DFU and hex files are available. 915 MHz default radio band
<a href="#">12 Helmet</a>	Folder with <a href="#">IA</a> software for Marvelmind Helmet
<a href="#">12 Helmet\Helmet 915 IA.hex</a> <a href="#">12 Helmet\DFU\Helmet 915 IA.dfu</a>	Version of IA software for <a href="#">Helmet</a> . DFU and hex files are available. 915 MHz default radio band
<a href="#">13 Cap</a>	Folder with <a href="#">IA</a> software for Marvelmind Cap
<a href="#">13 Cap\Cap 915 IA.hex</a> <a href="#">13 Cap\DFU\Cap 915 IA.dfu</a>	Version of IA software for <a href="#">Cap</a> . DFU and hex files are available. 915 MHz default radio band
<a href="#">14 Headlight</a>	Folder with <a href="#">IA</a> software for Marvelmind Headlight
<a href="#">14 Headlight\Headlight 915 IA.hex</a> <a href="#">14 Headlight\DFU\Headlight 915 IA.dfu</a>	Version of IA software for <a href="#">Headlight</a> . DFU and hex files are available. 915 MHz default radio band
<a href="#">15 Modem_hw49</a>	Folder with software for Modem HW v4.9 ( <a href="#">NIA and IA</a> )
<a href="#">15 Modem_hw49\Modem_hw49 915 NIA.hex</a> <a href="#">15 Modem_hw49\DFU\Modem_hw49 915 NIA.dfu</a>	Version of NIA software for Modem HW v4.9 DFU and hex files are available. 915 MHz default radio band
<a href="#">15 Modem_hw49\Modem_hw49 433 NIA.hex</a> <a href="#">15 Modem_hw49\DFU\Modem_hw49 433 NIA.dfu</a>	Version of NIA software for Modem HW v4.9

	DFU and hex files are available. 433 MHz default radio band
<a href="#">15 Modem hw49\Modem hw49 915 IA.hex</a> <a href="#">15 Modem hw49\DFU\Modem hw49 915 IA.dfu</a>	Version of IA software for Modem HW v4.9 DFU and hex files are available. 915 MHz default radio band
<a href="#">16 Beacon hw49</a>	Folder with software for Beacon HW v4.9 ( <a href="#">NIA and IA</a> )
<a href="#">16 Beacon hw49\Beacon hw49 915 NIA.hex</a> <a href="#">16 Beacon hw49\DFU\Beacon hw49 915 NIA.dfu</a>	Version of NIA software for Beacon HW v4.9 DFU and hex files are available. 915 MHz default radio band
<a href="#">16 Beacon hw49\Beacon hw49 433 NIA.hex</a> <a href="#">16 Beacon hw49\DFU\Beacon hw49 433 NIA.dfu</a>	Version of NIA software for Beacon HW v4.9 DFU and hex files are available. 433 MHz default radio band
<a href="#">16 Beacon hw49\Beacon hw49 915 IA.hex</a> <a href="#">16 Beacon hw49\DFU\Beacon hw49 915 IA.dfu</a>	Version of IA software for Beacon HW v4.9 DFU and hex files are available. 915 MHz default radio band
<a href="#">17 Beacon hw45 NIA</a>	Folder with NIA software for Beacon HW v4.5
<a href="#">17 Beacon hw45 NIA\Beacon hw45 433 NIA.dfu</a>	Version of NIA software for Beacon HW v4.5 Only DFU files is available. 433 MHz default radio band
<b>Robot Boxie software</b>	
Please find separate software package on the <a href="#">Robot Boxie</a> page on the site	



## DJI drones autonomous flight software

Please find separate software package on the [DJI](#) page on our site

### API

<a href="#">18 API</a>	Folder with Marvelmind API library and C example. See chapter 10 of the <a href="#">interfaces document</a> for details.
<a href="#">18 API\01_api_windows_64bit</a>	Folder with Marvelmind API for Windows 64 bit (dll)
<a href="#">18 API\03_api_linux_x86</a>	Folder with Marvelmind API for Linux (x86 platform) shared library
<a href="#">18 API\04_api_linux_arm32</a>	Folder with Marvelmind API for Linux (arm32 platform) shared library
<a href="#">18 API\05_api_linux_arm64</a>	Folder with Marvelmind API for Linux (arm64 platform) shared library
<a href="#">18 API\example_source</a>	Folder of source code of C example for Marvelmind API
<a href="#">18 API\example_bin_win64</a>	Prebuilt example for Marvelmind API (win64)

### Examples

<a href="#">19 Examples</a>	Folder with misc sample code
<a href="#">19 Examples\arduino</a>	Folder with Arduino examples
<a href="#">19 Examples\arduino\marvelmind_hedgehog2arduino_interface_v2016_03_07.pdf</a>	Scheme of connection of mobile beacon to Arduino
<a href="#">19 Examples\arduino\hedgehog_sample_uart_v6</a>	Arduino example for getting location

	of mobile beacon via UART
<a href="#">19_Examples\arduino\hedgehog_sample_spi_v3</a>	Arduino example for getting location of mobile beacon via SPI
<a href="#">19_Examples\arduino\hedgehog_sample_uart_imu_raw_v2</a>	Arduino example for getting raw IMU data via UART
<a href="#">19_Examples\arduino\hedgehog_sample_uart_imu_fusion_v2</a>	Arduino example for getting IMU fusion data via UART
<a href="#">19_Examples\arduino\hedgehog_sample_uart_path_v1</a>	Arduino example for receiving waypoints from mobile beacon via UART (sent from dashboard or other software)
<a href="#">19_Examples\arduino\hedgehog_sample_uart_ranges_v4</a>	Arduino example for getting locations of mobile and stationary beacons and calc distances
<a href="#">19_Examples\arduino\hedgehog_sample_uart_user_data_send_v2</a>	Arduino example for sending user data via modem or beacon (via UART)
<a href="#">19_Examples\arduino\hedgehog_sample_uart_user_data_receive_v2</a>	Arduino example for receiving user data from modem or beacon (via UART)
<a href="#">19_Examples\c</a>	Folder with different C examples
<a href="#">19_Examples\c\2022_11_23_C_example</a>	C example for reading streaming data from mobile beacon or modem (locations, IMU, raw distances etc).
<a href="#">19_Examples\c\2017_01_28_modem_C_example</a>	C example for communication with modem. Obsolete. Use Marvelmind API instead it
<a href="#">19_Examples\c\2022_12_06_UDP_C_example</a>	C example for getting location, IMU and other data via UDP from dashboard or Super-Modem.
<a href="#">19_Examples\python</a>	Python example for reading streaming data from mobile beacon or modem (locations, IMU, raw distances etc).
<a href="#">19_Examples\android_java</a>	Android (Java) example for reading

	location of mobile beacon
<a href="#">19 Examples\ros</a>	Marvelmind ROS package source
<a href="#">19 Examples\ros2</a>	Marvelmind ROS 2 package source
<a href="#">20 Documentation</a>	Folder with documentation
<a href="#">20 Documentation\marvelmind_ROS_v2022_11_20.pdf</a>	Installation in using of Marvelmind ROS package
<a href="#">20 Documentation\marvelmind_ROS2_v2022_11_30.pdf</a>	Installation in using of Marvelmind ROS-2 package
<a href="#">20 Documentation\dashboard linux manual v2019_05_14.pdf</a>	Manual for Linux version of dashboard
<a href="#">20 Documentation\marvelmind_hedgehog2arduino_interface_v2016_03_07.pdf</a>	Connection of mobile beacon to Arduino
<a href="#">21 DFU</a>	Folder with DFU software and drivers
<a href="#">21 DFU/01 windows</a>	Folder with DFU software and drivers for Windows
<a href="#">21 DFU/02 linux</a>	Folder with DFU software for Linux
<a href="#">21 DFU\dfu_update_troubleshooting.pdf</a>	Detailed information about installation of the DFU driver for Windows

DFU files are used for uploading firmware via DFU interface. Please refer to operating manual.

Hex files are used for uploading firmware using dashboard software. Please refer to operating manual.