

Getting Started

This page: structure of this subsystem

`components/driving_board` folder contains 4 libraries:

- firmware
- motor
- parser
- simulink

Firmware contains the generated CubeMX code. Don't edit this after generating, it will be rewritten after you generate again.

NOTE: do make sure that after generating your code in CubeMX, you run the post generation script. You can set a post generation script in CubeMX itself. However, if you use Windows run: `scripts/post_code_generation.bash`, if you use Mac run: `scripts/post_code_generation_mac.bash`

The **Simulink** folder contains code generated by the control team, and it shouldn't be modified by embedded. This code is not used on the embedded side, but it provides a clear reference for the type of input we give to control algorithm and the output we receive from it.

In `control.h`, struct `ExtY` gives the external outputs and `ExtU` is the struct for external inputs.

`src/driving_board` contains `main.c`

This is the code that runs when we build and update to the board by pio. Main includes multiple threads for some tasks that need to run concurrently.

`ERC-Protobufs/components/driving_board` contains protobufs for this subsystem

Protobuffers are used to send information to software and debugging board and receiving information from software.

Revision #3

Created 2026-04-14 15:18:25 UTC by Irem Civginer

Updated 2026-04-20 00:20:17 UTC by Irem Civginer