Design Support Documents

Electrical Harness & Low Voltage

Objectives

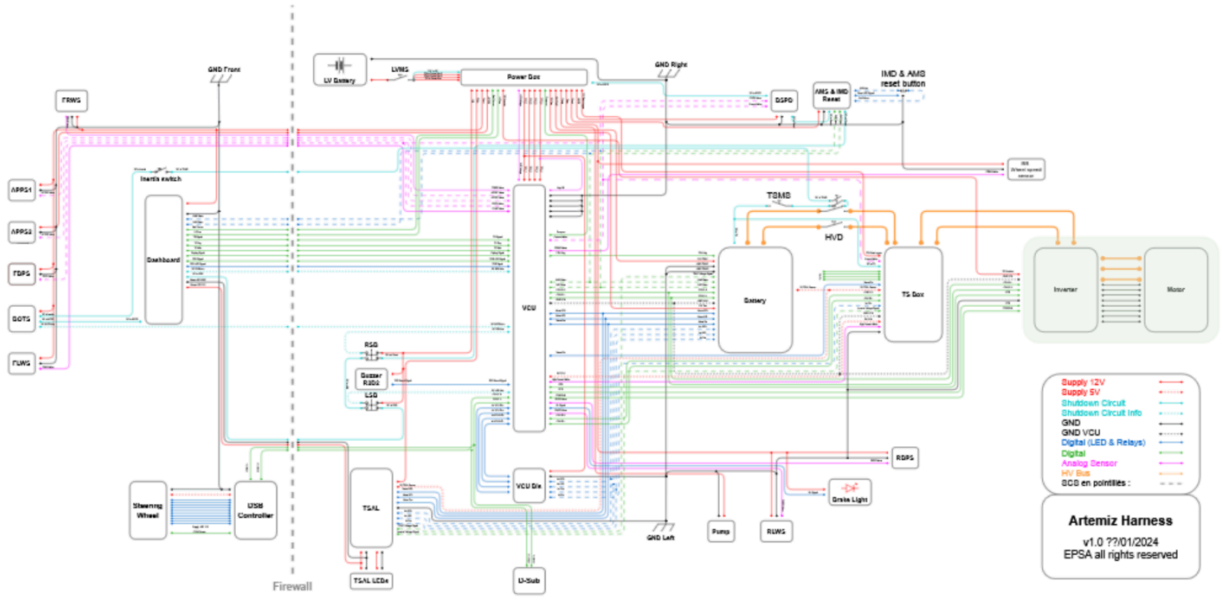
The objective of this document is to present the various tools and approaches we used to design the low voltage and the electrical harness of Artemiz. Our goal was to create the team's first rule-compliant system for an electric vehicle and we also aimed to be as competitive as possible.

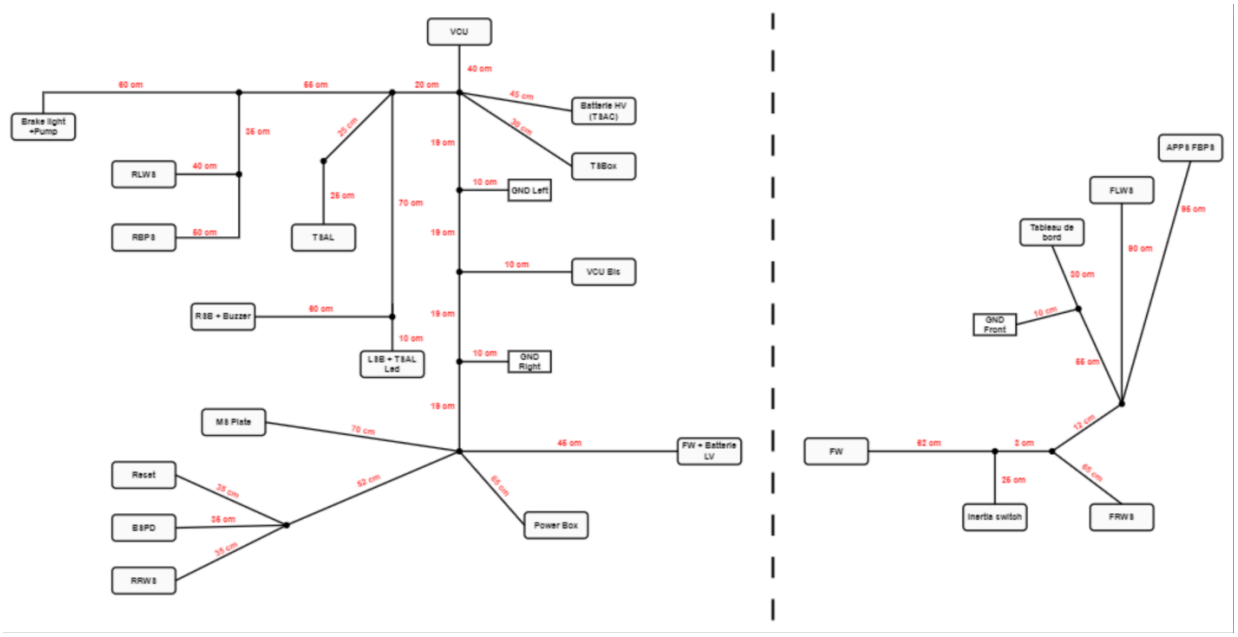
Conception Steps

To begin with, we set objectives and functions for the low voltage system, summated constraints imposed by the rules and located improvements opportunities, in order to structure and define our work. Then, a preconception phase instituted the basics of the development that was brought in detailed conception. This consisted of creating electronic cards for each of the functions defined beforehand and managing interfaces with other systems.

Electrical Harness

The objective is to have the most optimized harness possible, using the shortest length and prioritizing a single passage through the firewall.





Electronic Cards

- Inverter Voltage Sensor
- DSB Controller
- BSPD
- VCU
- TSAL
- TSAC Voltage Sensor
- SCS Maker