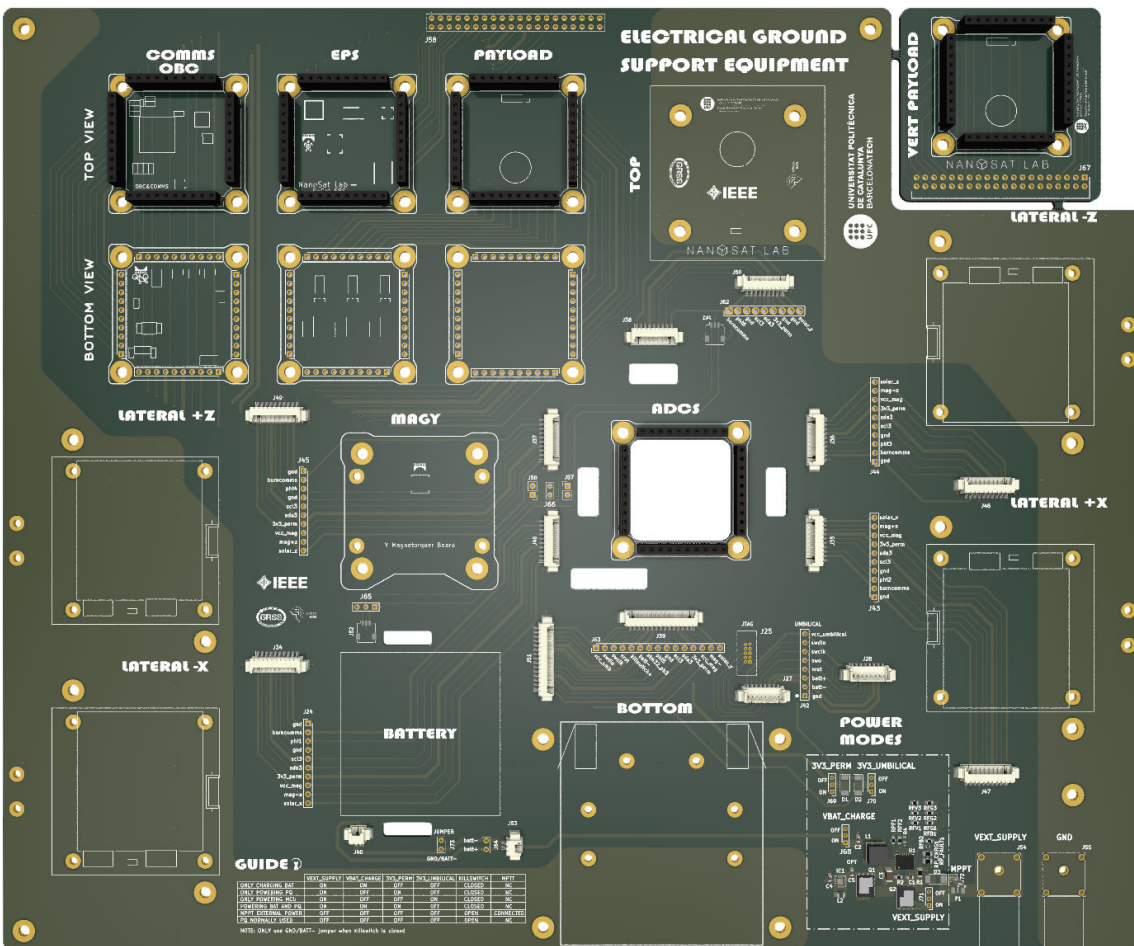


EGSE - Wiring and Setup

The main objective of this section is to document and explain how to proceed with the wiring of the different parts of the EGSE to use it correctly. Additionally, it will explain the fundamentals for operating it properly.

The EGSE does not have all the SSVs interconnected by default, so we will need to create cable buses to interconnect the SSVs, we also need to prepare some special pieces to hold certain parts, such as the solar panels and the bottom board with the kill switches.

Next, we can see an render of the EGSE without connections and without any SSVs. Therefore, we will proceed with documenting the necessary interconnections for the EGSE and the properties it offers



1. Cable bus

First, we need to prepare the interconnection buses, so we will start by creating these using mainly PicoBlade and PicoClasp connectors (Before making the cables, we will need to ensure they have the correct length)

ID	From	Num of cables	Connector	To	Num of cables	Connector	Lenght (mm)
1	Lat +Z	10	PicoBlade	PCB Connector	10	PicoBlade	
2	PCB Connector	10	PicoBlade	ADCS	10	PicoClasp	
3	Lat -Z	10	PicoBlade	PCB Connector	10	PicoBlade	
4	PCB Connector	10	PicoBlade	ADCS	10	PicoClasp	
5	Lat +X	10	PicoBlade	PCB Connector	10	PicoBlade	
6	PCB Connector	10	PicoBlade	ADCS	10	PicoClasp	
7	Lat -X	10	PicoBlade	PCB Connector	10	PicoBlade	
8	PCB Connector	10	PicoBlade	ADCS	10	PicoClasp	
9	Battery	2	PicoBlade	-	-	-	
10	PCB Connector	2	PicoBlade	Bottom Board	2	PicoBlade	
11	Battery Heater & NTC	3	PicoClasp	-	-	-	
12	PCB Connector	3	PicoClasp	ADCS	3	PicoClasp	
13	Umbilical	8	PicoBlade	PCB Connector	8	PicoBlade	
14	Bottom Board	15	PicoBlade	PCB Connector	15	PicoBlade	
15	PCB Connector	15	PicoBlade	ADCS	15	PicoClasp	
16	Top Board	9	PicoBlade	PCB Connector	9	PicoBlade	

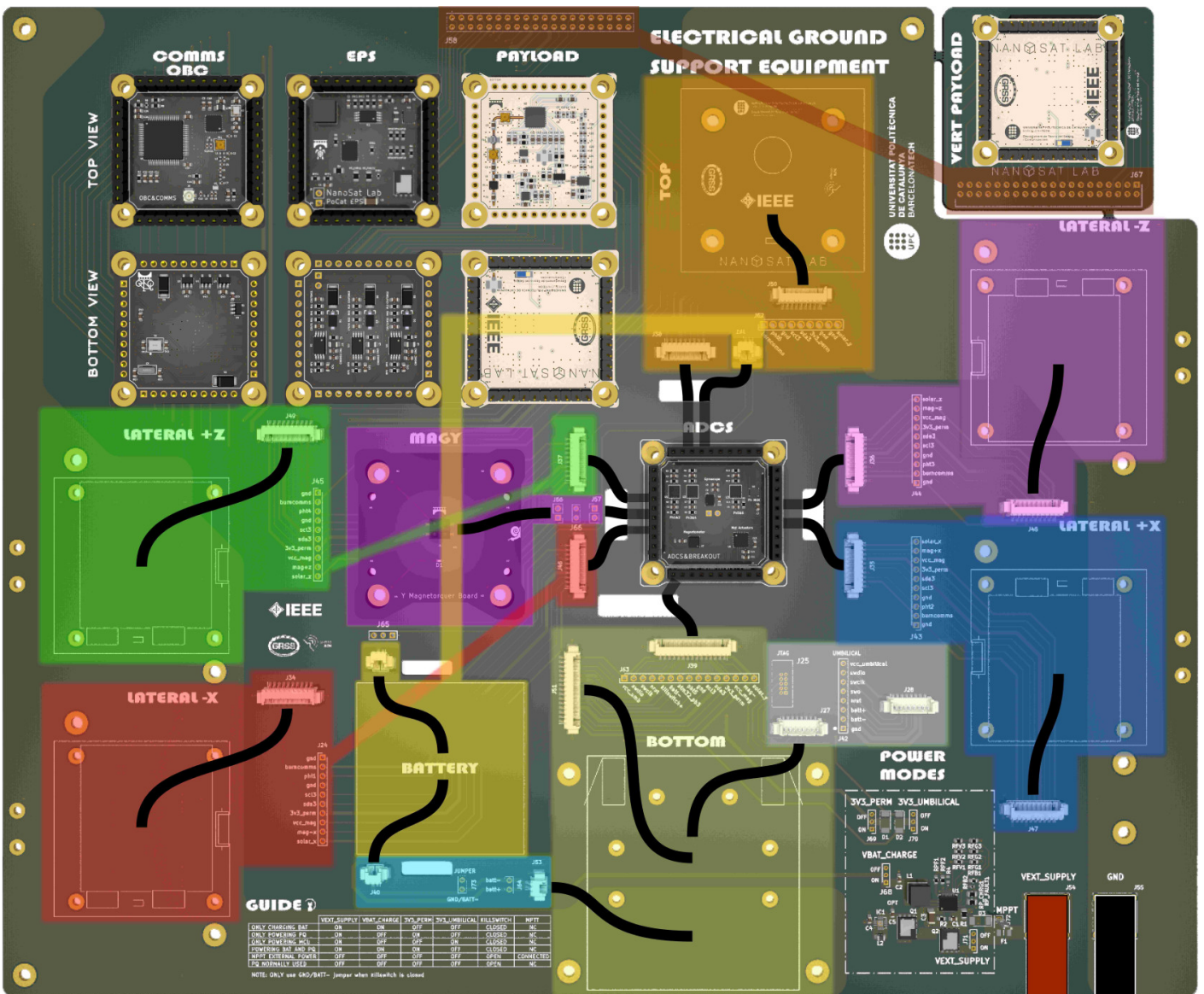
17	PCB Connector	9	PicoBlade	ADCS	9	PicoClasp	
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The +Y magnetometer with the ADCS has to be connected through a simple wire; there is no connector between these parts.

Each cable should be approximately the length specified in the table, which serves as a reference for the cable lengths used in the poCat-LEKTRON EGSE.

In this following diagram, we see the cables we just constructed indicated by black lines. These lines represent which parts of the EGSE will be wired. The colors indicate that they belong to the same part.

If we look closely, all the colored areas are not connected by default; we connect them using the cables we just made



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