Project Steps - Group 17

DRS for formula type cars - Mechatronic systems simulation (Modeling)

## Meeting: Wednesday April 27th, 5 pm

Tasks:

* Read Biral’s document ([pdf](https://drive.google.com/drive/u/1/folders/1ruEZ8N1z7W535tj_drC_v8oN-6bn0wAp))
* QFD: write the **requirements**, the customers and the **engineering specifications** (with their units and, possibly, a way to obtain them)
* Find other documents useful for the research of the targets that the DRS must satisfy

## Meeting: Friday April 29th, 9 pm

Tasks:

* QFD: write the **engineering specifications** in a good and understandable way
* Target: find **formulas** or **data** to complete the table about engineering specifications
* QFD: analyze the competitors (other mechanisms)

## Deadline first assignment: Sunday May 1st, 11.59pm

**Report in a short paragraph this parts in a shared document:** [**Report 1 Draft**](https://docs.google.com/document/d/186LnZQvmTOVwBgMyvRYEl0FOdrnOJG4CKHSp4FhmHW0/edit)

* Nats:
  + ~~Specification, vibration part~~
  + ~~Specification, stiffness part~~
  + ~~Specification, opening time~~
  + ~~Specification, max overshoot~~
  + ~~Specification, joints and friction~~
  + ~~Requirements, high precision~~
  + ~~Requirements, durability~~
* Mattia:
  + ~~Specification, weight and volume part~~
  + ~~Specification, front section~~
  + ~~Specification, max displacement~~
  + ~~Requirements, quick motion~~
  + ~~Requirements, compliance with rules~~
  + ~~Requirements, lightweight~~
* Albi:
  + ~~Specification, power part~~
  + ~~Specification, max sustainable moment part~~
  + ~~Requirements, high aerodynamic efficiency~~
  + ~~Requirements, low power consumption~~
  + ~~Requirements, easy to assemble~~
  + ~~Requirements, safe (in a structural way)~~

To do:

* ~~Model comparison (Mattia)~~
* ~~Give a rate to engineering specifications (Nats, shared with the group)~~
* ~~Target for the engineering specifications (Albi)~~

Article:

[F1 - Analisi al CFD del sistema DRS - Drag Reduction System | Formula Uno Analisi Tecnica (funoanalisitecnica.com)](https://www.funoanalisitecnica.com/2014/07/analisi-al-cfd-del-sistema-drs-drag.html)

Hydraulics:

<https://motorsport.tech/formula-1/formula-1-hydraulics-explained>

pressure: 250 bar