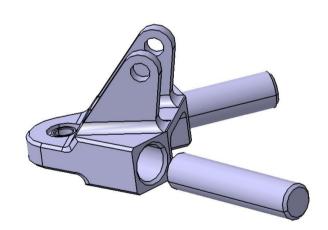
Environmental influence



Production influence

The first aspect concerning the environmental influence of the car is its production. Below are some ideas to reduce environmental impact of the car production:

- Limitate the shavings
 - By dividing one part into several (Upper bearing support, Uprights, ...)
 - By using alternative manufacturing processes (3D printing, ...)
- Recycle the shavings
- Reducion of oil consumption
 - Emulsion as lubricant (95% of water/5% water)
 - Dry cutting
- Purchase of second-hand part for the car (engine, ...)
- Reduce the number of scraps
 - Cleaning of the machines
 - Increase of metrology on the parts
- Promote local production
- Limitation of consumables
 - Cleaning clothes
 - Abrasive stones rather than sand paper
 - Protective gloves reusable
- Energy management





Materials recycling

The recycling of the materials of the car is a very important aspect of the environmental influence of the vehicle production.

- Some materials can be easily recycle (metallic materials for instance).
- Some part bought on the market can be sold as second-hand.
- Other materials are more difficult to recycle:
 - Composite materials
 - Tires
 - Oils

Comparing to other teams, materials such as CFRP, ... which can be difficult to recycle, are not widely used on our car. However, even these materials can be recycled. Below, 2 examples are developed: recycling of tires and recycling of CFRP.

Recycling of tires Recycling of CFRP Recycling **CFRP** waste Crushing Retreated tires Thermal recycling: Crush Combustion Grinding Material/Thermal recycling: Separation Raw material or fuel fo Magnetic/Fiber Cement and Blast furnace separation Pyrolise, Fiber Resin Grinding, ... |Rubber powder/ Fibers Steel wires aggregates Thermal/Chemical Recyling: Decomposed oil (fuel)