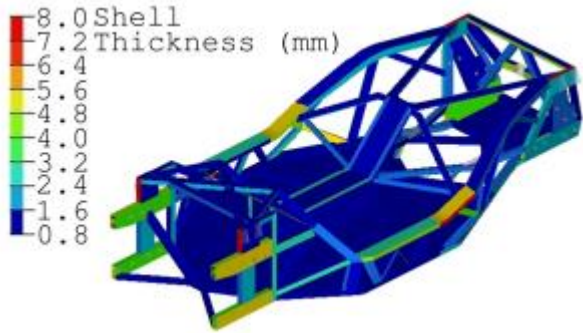


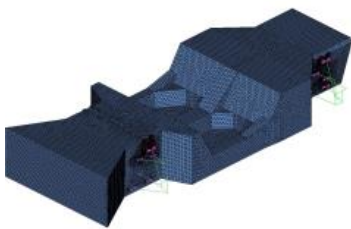
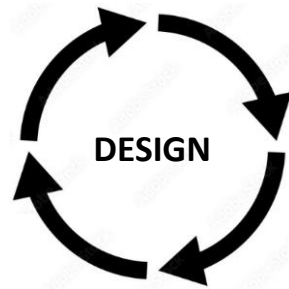
Designing Optimized Car Parts With Cyborg Systems

Reviewing “High performance automotive chassis design: a topology optimization based approach” by Cavazzuti et al.



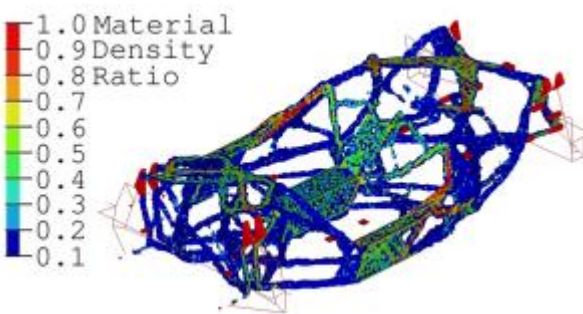
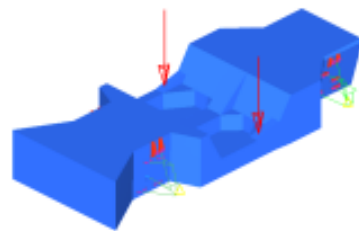
Imagine if your car was made up of spider web looking parts like this one. Besides the cool aesthetic, this part is **optimized** for material reduction.

To get cheaper products, we can **rethink** the design process and design with human + computer systems: **cyborg systems**.



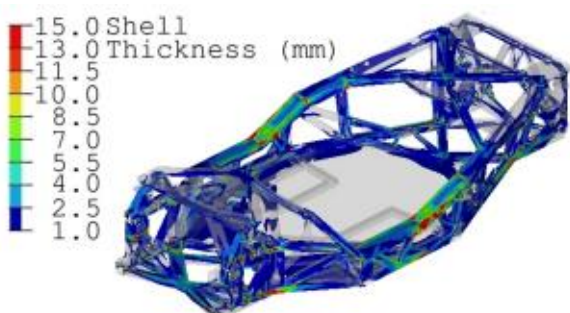
To **design** the car chassis above, we start with a large piece of metal represented by a million cubes.

We define functions that **evaluate** whether a design meets requirements through finite element analysis (FEA).



We allow the system to cut out or reduce the density of cubes that **do not contribute** to safety requirements.

We allow a human designer to **interpret** the results and make a CAD model of the car chassis.



We give the CAD model to the system and allow it to **optimize** the design and repeat as desired.