

PROJECT OUTLINE

Project dates: September - December 2019

Title: Realization of a Laser Cutting Machine

Project activity areas:

Laser Cutting

Keywords:

#LaserCutting #Design #Realization #Innovation

Tutor's name and coordinates

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Project origin:

ENIT



Project technical background:

Our establishment (ENIT) wants to equip itself with a laser cutting machine.

We want to build our own machine from commercial elements.

This machine should be able to cut wood and soft materials (like Plexiglas).

The design of the machine will allow the machine to evolve in size, laser power and wave length if possible.

The activity of this project consists in the definition of the elements (Laser, cooling modules, displacement modules, power module, smoke evacuation module, etc.), the design, the realization of the different modules and, if possible, the realization of the machine.

A specific study of the security has to be done during the project (health security).



Studied topics:

- Definition of the Laser (Power, Type, wave length)
- Definition of the Machine (dimensions, actuators, piloting)
- Supplier search, quotations, orders
- Design of the different modules and the complete machine on Catia V5
- Realization of modules, manufacture of parts.
- Technical and utilization guide
- Security guide for the use of the machine
- Realization of the complete machine

