HMAE project

Context

The "How to Make Almost Everything" class focus on the fabrication process and electronics. As a result, the project will mainly focus on the fabrication process you used and the fabrication of an electronic board.

As a reminder, this project can be a part of your year project, technological expedition, or any other project, as long as you prove that **YOU** made the evaluated parts. You can use a single project to validate different class projects, as long as it matches each class's requirements.

This class project has to be made alone. However, it doesn't restrict you from asking for bits of advice or work with your pairs. A project or a part of a project mustn't be presented twice or more (for different people). It leads to a 0 and a report to your specific PI.

Instructions

The following instructions are the necessary conditions to present a project. The evaluation comes from a notation sheet given below.

Instructions :

- 3 different fabrication processes must be used (3D printing, molding, laser cutting, forging, etc...). For each one, you must provide your modelizations, molds, plan, etc...
- A functional electronic board made by yourself. We must find at last one microcontroller on it.
- Record different externals phenomenons with sensors, at last 2. If possible, one sensor have to be homemade ------ OR ------ All the code of your board made by register programming

> *You must choose your third condition for the second phase (November). If you want an exception, ask the course leader for it.*

Notation sheet

Section in construction

Deadlines

The evaluation process has three steps (detailed in your survival guide). **the documents have to be written in English.**

Step 1 - Subject validation

> *13/10/2021*

You have to provide a 1-page report which summarises your project and the process to make it. Optionally, a brief paragraph about the link between your project and your group (Artificial life - Resilient future). The deadline is for the report. You have

to check with the course leader before if the project meets the instructions. Otherwise, your report could be rejected, ending with a note of 0 for this step.

The quality of the report is a part of the evaluation. Make it readable with relevant pictures.

Step 2 - Avancement

16/11/2021 - 19/11/2021

You have to provide a report (between 2 and 5 pages) which summarises your advancement. The report is an extension of the first one. You will present your progress and prototype(s) to the course leader during a 10-minute meeting. The meeting has to take place in the deadline interval. **Please take the meeting in advance (1 week in advance, not 1 hour)**

Step 3 - Final result

13/12/2021 - 17/12/2021

You have to provide a report (between 5 and 10 pages, please no more) which summarises all the projects. You have to add figures, schematics, and all resources mandatory to understand the project. You will present your final result with a demonstration to the course leader during a 10-minute meeting. The meeting has to take place in the deadline interval. **Please take the meeting in advance (1 week in advance, not 1 hour)**

Others

Don't forget to clean your place after work and put away all tools and materials used.

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