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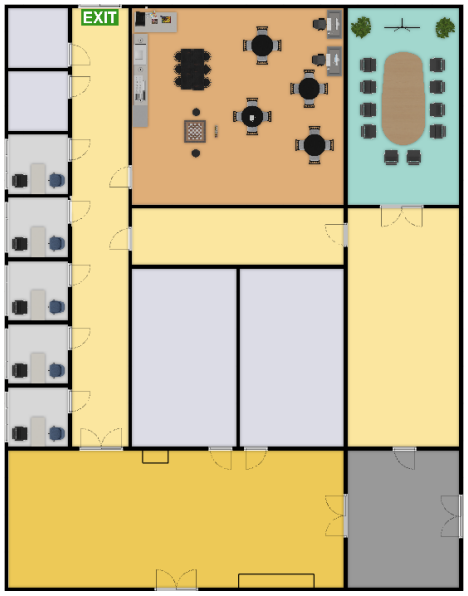
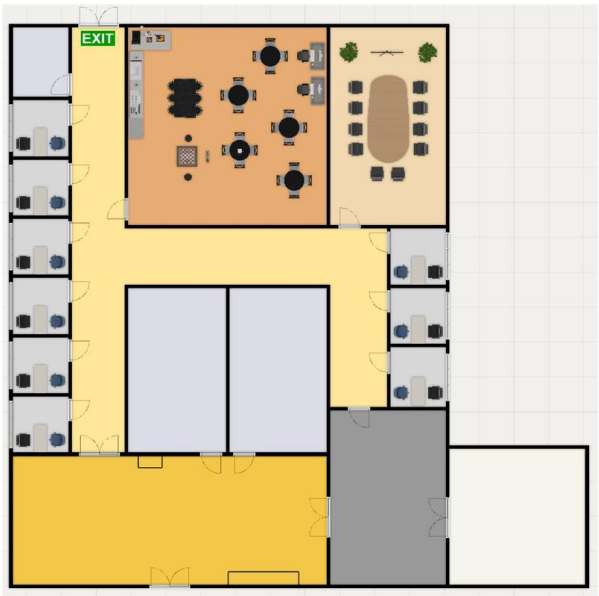
Comparison of 1st and 2nd Floor Plan

First Floor Plan	Second Floor Plan
	

Our second floor plan reflects on the weaknesses discussed in our previous deliverable after testing with our first prototype, and improves on them. Firstly, the hallways are now uniform width, with an open wall to connect them, instead of awkward doors. Four more small office spaces have been added, as during our third client meeting, the client seemed to prefer a larger quantity of small offices than what our first floor plan had. As well as this, the boardroom, break room, and lab have all been expanded, as they each felt quite small relative to the building. The garage/lentu was added as an attachment to the lab, as it was not present in the first floor plan.

Plans For the Final Prototype

After careful consideration regarding available resources, budget, and efficiency of prototype construction, we have decided on a laser cut foundation, walls, and roof with 3D printed furniture/ decoration. Looking at our floorplan, we have one floor, walls and doorways, and little polygonal complexity. These factors point to laser cutting as an ideal solution, as we can cut our walls and doorways using a single flat sheet of MDF, which would be extremely fast, and much cheaper at the scale we have planned on. For interior decorations, 3D printing will be used, as smaller, more complex structures, like a model table or chair, are fast and easily customizable with 3D printing to a high accuracy.

Plans for Prototype II

Since our group has not received feedback for our first prototype presentation, we aren't starting our prototype II, although we have ideas as to what it will be. We plan on laser cutting only the foyer to test the properties of MDF to ensure that it is the correct material to use in our final prototype. We will also design and 3D print various pieces of furniture and decoration to add to test the effectiveness of the method. We will attempt to incorporate cultural aspects mentioned during client meetings to an effective degree using Laser Etching, 3d printed decorations, and other potential methods. With this prototype, it will be mainly testing 3 things:

1. The strength and viability of using MDF as our material for laser cutting.
2. Effectiveness of using 3D printing for small decorative objects.
3. Quality and execution of cultural aspects in the building.

While most testing will be analytical, like with the strength of MDF, the cultural aspects will be qualitatively judged by multiple people, those of which have not been chosen yet. This mix of quantitative and qualitative testing ensures that we receive valuable feedback and information in all aspects of the building. An example of quantitative testing can be how well an MDF sheet holds up to multiple windows in close proximity, and an example of qualitative testing would be asking others for opinions on the style and message behind the rooms' aesthetics.