



Pleasant Plants Developmental Project

Product Design Workbook Ver 1.0

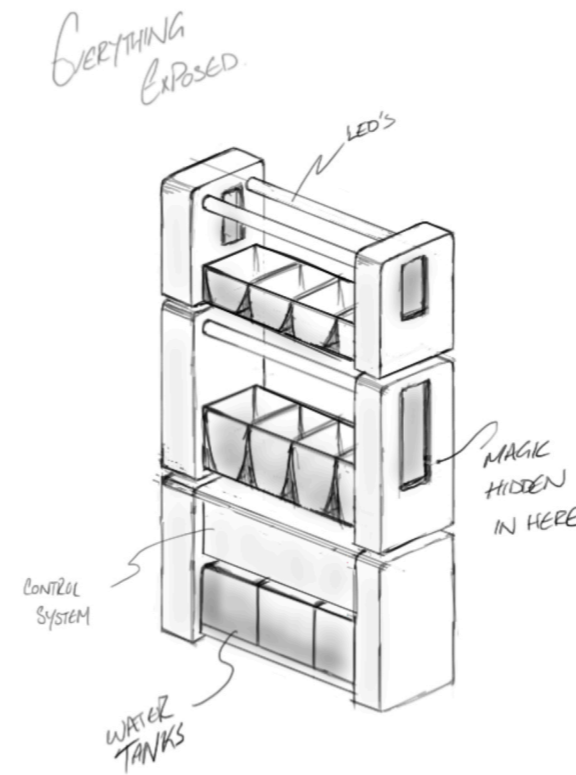
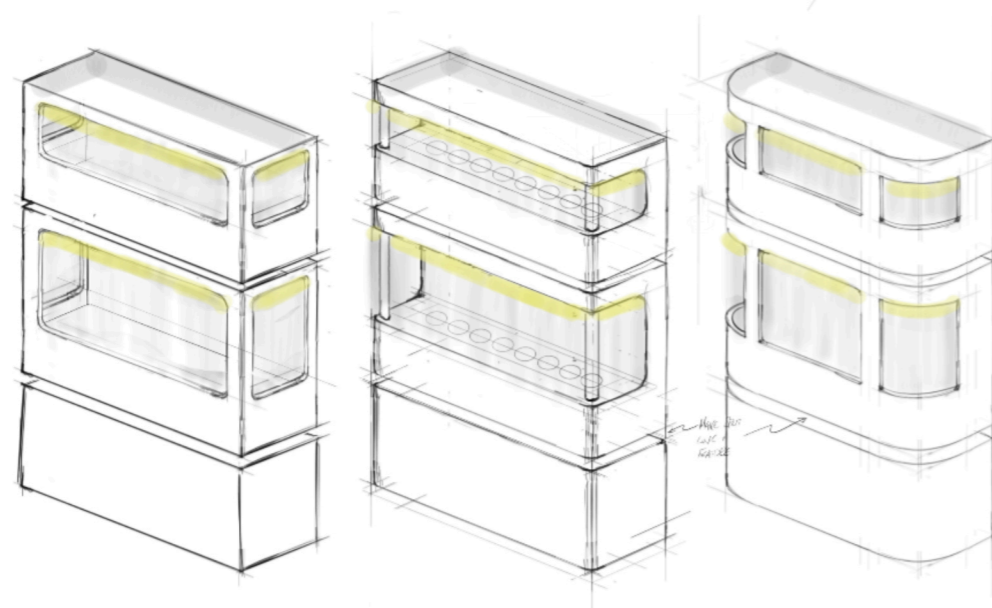
E. Maraspin July 2020



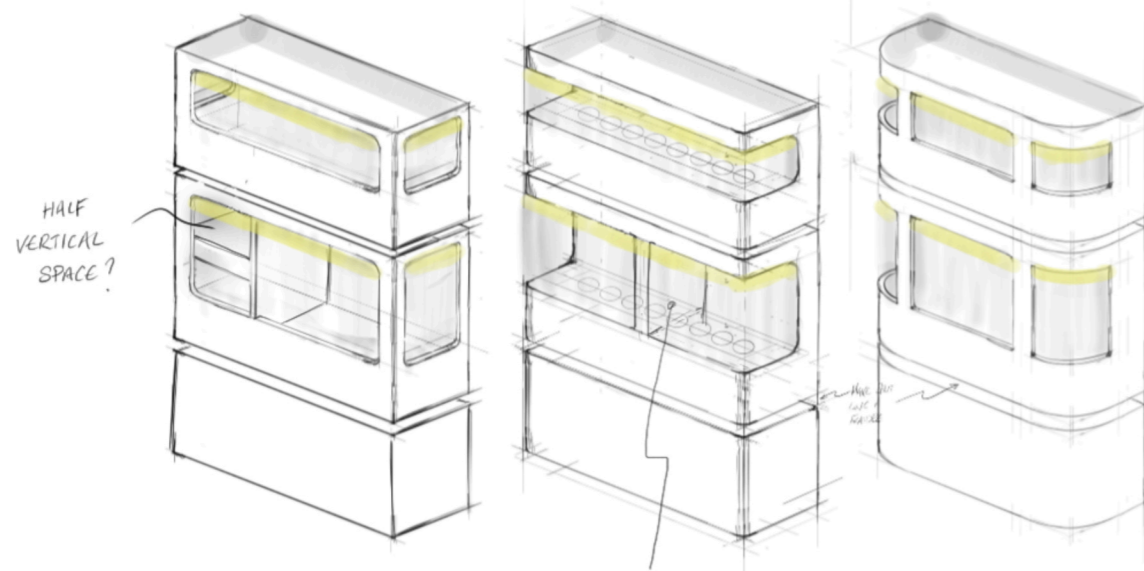
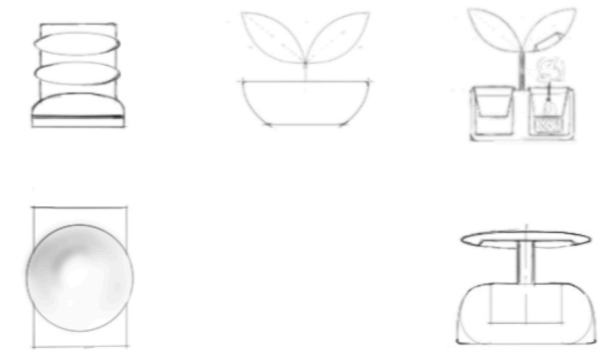


Problems to Solve

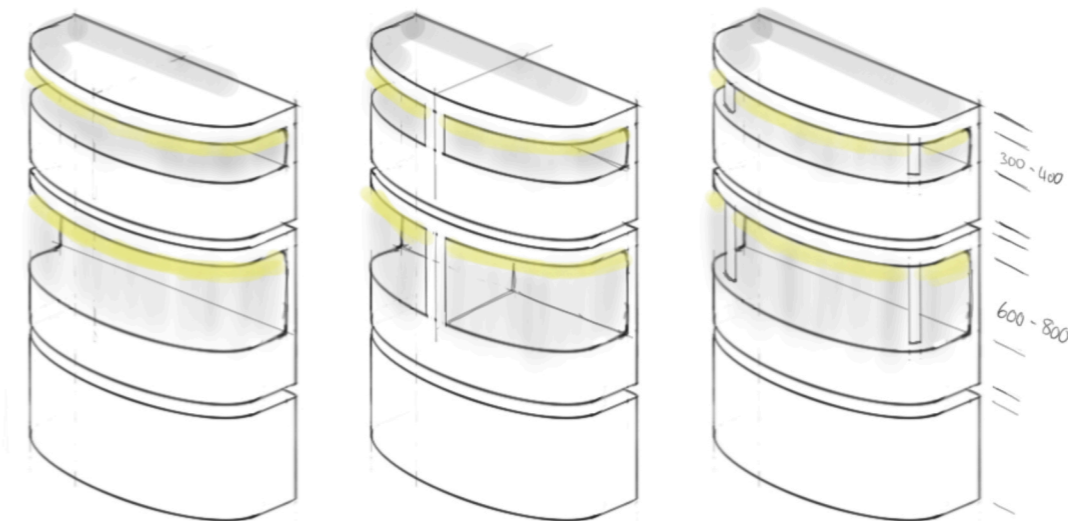
- Basic form of base unit and growth units



OTHER POTENTIAL END STRUCTURES



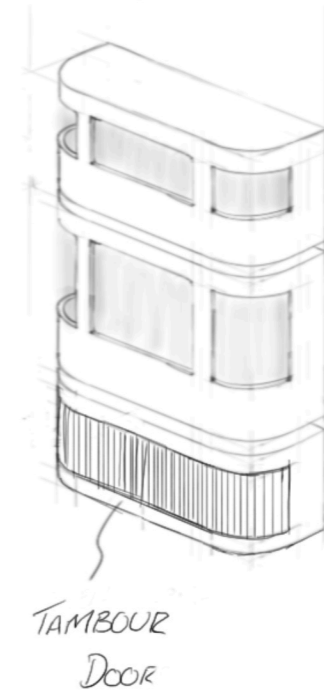
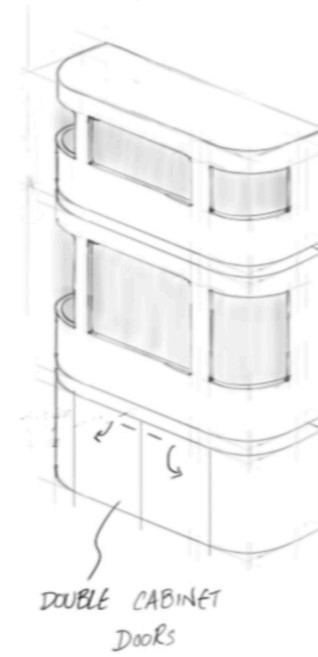
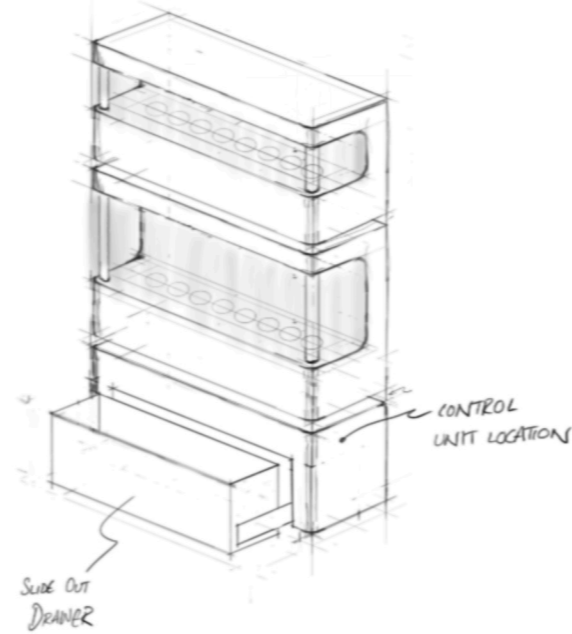
POTENTIALLY ADD TANK
IN CENTRE PARTITION





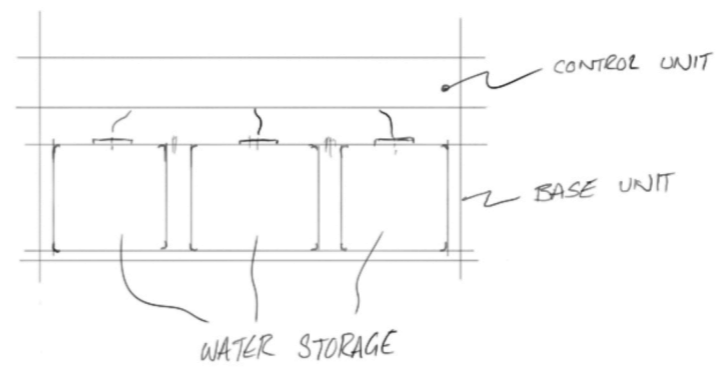
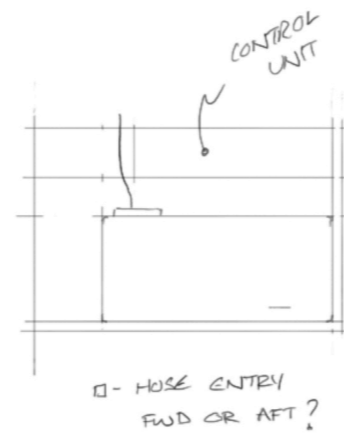
Problems to Solve

- Where to stow water tanks



THINK

- - PRINTER TONER LOADING
- - ACCESS FROM FRONT
- -

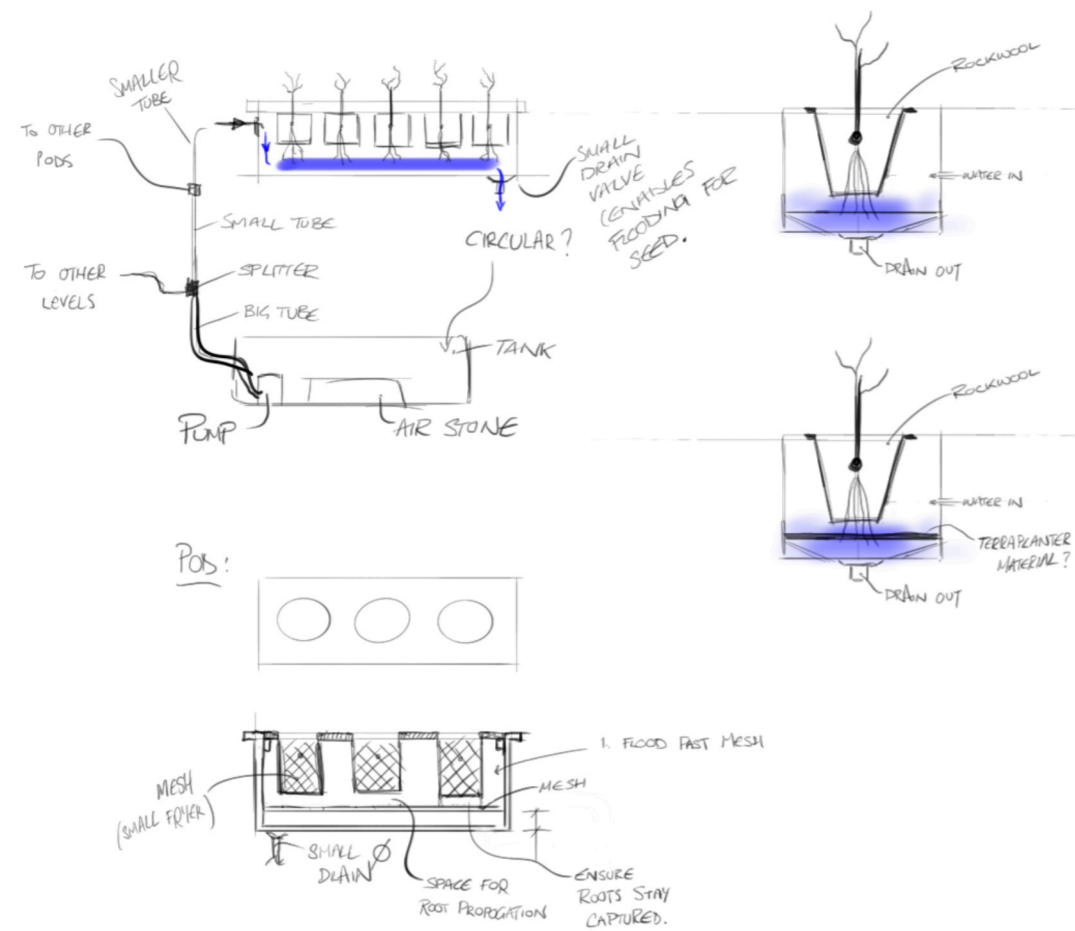




Problems to Solve

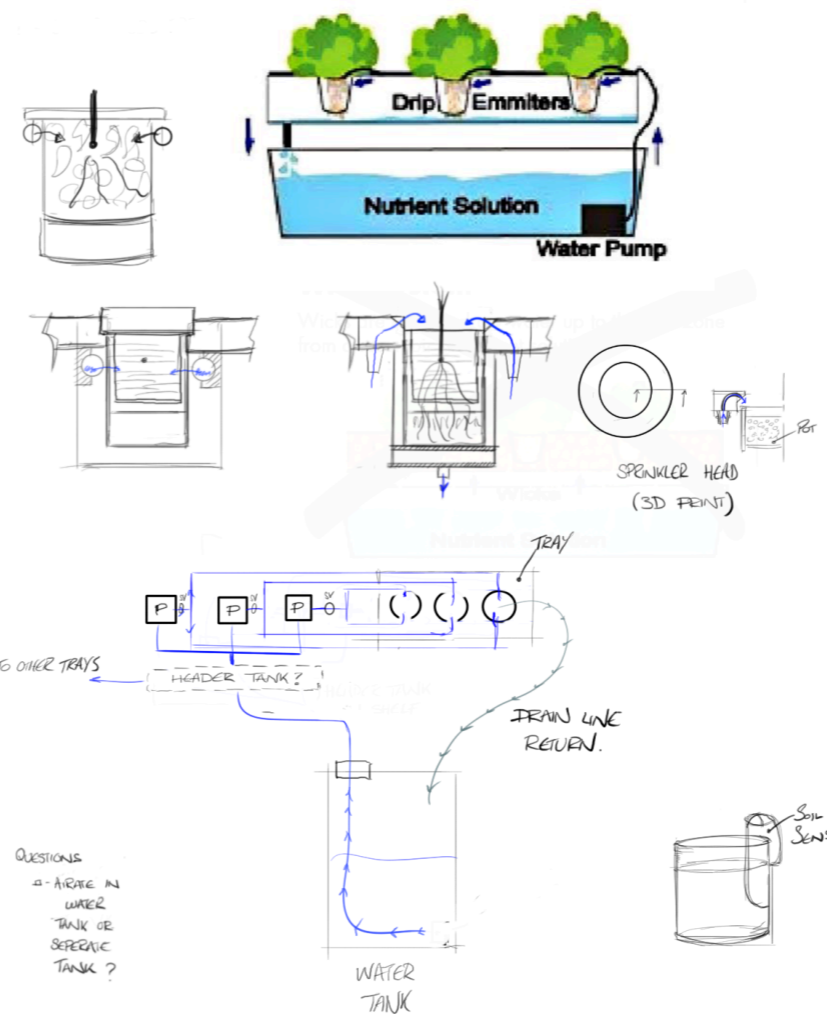
- Water to seed/root through whole cycle with efficient water usage
- Access for pot removal, maintenance from behind and pot and tray cleaning

CURRENTLY IN REWORK



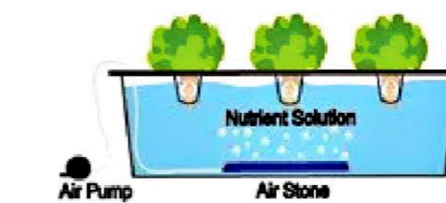
Drip Recovery System

An irrigation line and drip emitters are used to deliver the nutrient solution exactly where plants need it.



Deep Water Culture (DWC)

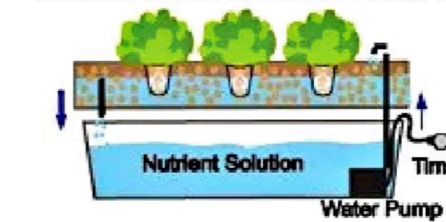
Plants float directly on top of the nutrient solution. An air pump and air-stones provide oxygen for the roots.



THIS WITH EXTERNAL TANK.

Ebb & Flow

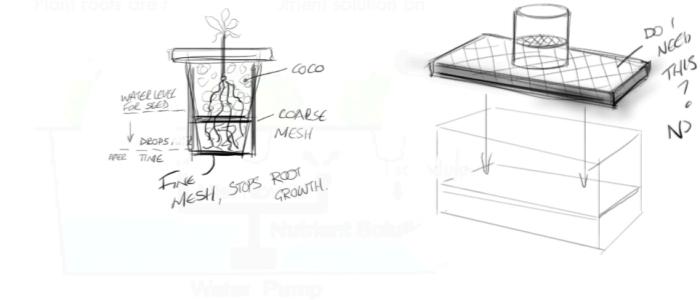
Nutrient solution is pumped into a planting tray filled with gravel or clay pelets. The plant tray fills up with nutrient solution that is then flushed back into the reservoir on a timed cycle.



COMBINATION!

Aeroponics

Plant roots are in a nutrient solution.





Problems to Solve

- Stackable shelf system
- Vent Space for Light Module

