| Task Category  | Task List<br>(each item should be less than a day tas            | sk)                  |
|----------------|--|----------------------|
| Computer Aided | Add the components to a cardboard model                          | Minimum Feature      |
| Design         | Design the overall 3D Model                                      | Minimum Feature      |
|                | Add mounts and fixture to the 3D model                           | Minimum Feature      |
|                | Assemble 3D model parts  | Minimum Feature      |
|                | Buffer for implemeting design improvements during the design pro | Minimum Feature      |
|                | Implement design improvements after cardboard model              | Minimum Feature      |
|                | Render the 3D model  | Complete Feature     |
|                | Design improvements for Tank                                     | Complete Feature     |
| Digital        | Mill new PCB   | Minimum Feature      |
| Fabrication    | Solder and Stuff PCB   | Minimum Feature      |
|                | 3D print final project parts 1                                   | Minimum Feature      |
|                | 3D print final project parts 2                                   | Minimum Feature      |
|                | 3D print final project parts 3                                   | Minimum Feature      |
|                | Vinyl cutting copper for step response                           | Nice-to-have Feature |
|                | Fabricate Final PCB  | Minimum Feature      |
|                | Re-Fabricate Final PCB   | Minimum Feature      |
|                | 3D print Tank improvement  | Complete Feature     |
|                | Fabricate Soil Moisture Sensor                                   | Nice-to-have Feature |
| Electronics    | Check the inventory for the parts (electrical and mechanical)    | Minimum Feature      |
| & Programming  |  | Minimum Feature      |
|                | Purchase the components  Test PCB with full pins                 | Minimum Feature      |
|                | Code TFT   | Nice-to-have Feature |
|                |  | Minimum Feature      |
|                | Full Code for Project without communication with the APP         |                      |
|                | UI App   | Complete Feature     |
|                | Program App & Xiao   | Complete Feature     |
|                | Al Assistance chat interface for tips and tricks                 | Nice-to-have Feature |
|                | Edits on PCB based on powering                                   | Minimum Feature      |
|                | Test Electronics (maybe buck converter)                          | Minimum Feature      |
|                | Final Final PCB Design (Add regulator and buck converter)        | Minimum Feature      |
|                | Test 5V pump   | Minimum Feature      |
|                | Understand electronics and prepare for final wiring              | Minimum Feature      |
|                | Integrating code 1   | Minimum Feature      |
|                | Integrating code 2 - fixing problems                             | Minimum Feature      |
|                | Design Soil Moisture Sensor                                      | Nice-to-have Feature |
| Integration    | Assemble parts   | Minimum Feature      |
| & Testing      | Integrate full code and test                                     | Minimum Feature      |
|                | Final Assembly before video                                      | Minimum Feature      |
|                | Shoot the video  | Minimum Feature      |
|                | Process the video shots and make the final presentation          | Minimum Feature      |
|                | Make the final poster  | Minimum Feature      |
|                | Work on Final Project documentations (1)                         | Minimum Feature      |
|                | Work on Final Project documentations (2)                         | Minimum Feature      |
|                | System Integration   | Minimum Feature      |
|                | Final Project Development Page                                   | Minimum Feature      |
|                | Final System Integration   | Minimum Feature      |