

Product Development Manual

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Abstract

The project development manual is an original productivity model created by the reboot club. The manual will provide instructions and information regarding teams, sub-teams, product development phases and documentation procedures. The manual is prone to changes in the future.

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Project Selection

The projects selected for the current term will be explained in brief to the club members. After this session the project details will be available via the official club app. Shortly a “Join the team” form link will be provided via the app or the official website. Those interested to be a part of the product development is compelled to complete the form as soon as possible. The form will be available for at least 3 days.

The form requests the members to fill up the projects they would like to work with as well as the sub-teams they would like to be a part and other required information.

Team Formation

Each project will be allotted a team of 10-15 members depending on the project. The members are allotted to each team based on their interests registered in the project selection form. The final team formation authority lies solely in the hands of the core team of the club. Requests to join a different team can be submitted by the members via the official mail under a week after team reveal.

Sub-Teams are currently categorized into 4 namely:

Design Team.

Embedded Programming Team.

Application Programming Team.

Electronic and Electrical Team.

Design Team

Purpose : Design and develop the required mechanical hardware such as cabinets, gears, frames, etc... required for the project.

Expected Outcome: Complete physical hardware produced using production tools such as 3D printers, Lazer cutters, etc... modeled using 3D modeling programs.

Embedded Programming Team

Purpose : Design and develop hardware level programs for microcontrollers/microprocessors depending on the project.

Expected Outcome: Creation of a working program capable of running the required controller/processor to produce its maximum capabilities using c/c++ or any other supported language.

Application Programming Team

Purpose : Design and develop application programs with desired UI/UX , Databases capable of communicating with other networks and embedded programs depending on the project.

Expected Outcome: Creation of a working program capable of fulfilling user desires using high level languages(generally).

Electronic and Electrical Team.

Purpose : Design and develop the required electronic and electrical hardware required for the project.

Expected Outcome: Complete working circuits designed, assembled and tested for getting the required results.

Phase I

The phase I of product development is purely designing phase, where each sub team designs the product hardware and software for the given requirements. The time allotted for this phase is generally 1 week, which can be changed if necessary. After the allotted time for the phase each rough design from every sub-team will be updated officially, which can be assessed by other team mates from the club app. Required correction are made by each sub-team in their design based on other sub-team designs. After this the teams proceed to phase II of product development

Phase II

Phase II of product development is when the actual product manufacture and development begin. This phase is generally allotted 60-80days. In this phase each sub-team based on their final corrected designs starts to build the product with minimum interactions with other sub-teams. Regular project updates will be made via the official app. If the project is not completed within the given expected time domain an additional 30 days can be provided to complete the project. If the project still stands miles away from completion, the project will be dropped immediately.

Documentation

After project completion the documentation for the project is to be prepared based on any standard format and updated via the official club application. This marks the completion of the phase II as well as product development cycle.