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Description automatically generated

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Course: MSc Robotics

Module: PDE4435 – Robot Integration System

Assessment: Coursework 2 - Logbook

Professor: Dr. Judhi Prasetyo

**Date: 19/03/2025 - Wednesday**

The group scheduled a meeting to discuss the coursework 2 plan of action for Friday, 21st March 2025 at 14:45.

**Date: 21/03/2025 - Friday**

The meeting agenda:

* Discuss the report
* Divide the work of RoboDK, IEEE Report, logbook, and the Python GUI.
* Finalize project scope to share on teams with Dr. Judhi to get feedback before proceeding.

After the meeting, the following was decided.

* Akansha and Salma would take care of RoboDK, tasks divided:
  + Akansha:
    - Import table and robot (chosen and approved by the whole team)
    - Tool Change
    - Stirring Motion
    - Folding Motion
  + Salma:
    - Platform to keep ingredients (shapes), and utensils (bowl).
    - Picking objects
    - Placing objects
* Reia would handle the GUI
  + Create a GUI using python tkinter.
  + Add the features as discussed with the group.

Set a meeting for Tuesday 25th March 2025, to track progress at 19:30.

**Date: 22/03/2025 - Saturday**

Akansha began working on RoboDK and, along with Salma, faced free license issues. After reaching out to Dr. Judhi and Mr. Bittu, the team decided to continue using the free version of RoboDK while saving only one robot.

**Date: 23/03/2025 - Sunday**

Akansha finished her parts as assigned and sent the file to the group chat for Salma to work on.

Salma worked on the given file, finished her assigned parts, and shared the file on the group chat.

* Minor tweaking was done to the sizes of the objects based on the group member’s feedback.
* The final file was re-shared.

**Date: 24/03/2025 - Monday**

Reia began working on the GUI.

* Set the time and date to change dynamically on the screen.
* Connected the RoboDK program to the Python Application
* Created a ‘stir’ dummy button, to ensure the program was connected and working

The group discussed the creation of a recipe and asked Salma to add a table with bowls.

**Date: 25/03/2025 - Tuesday**

Salma added the bowls table and taught her points. The file was again reshared.

Based on the new file, Akansha was asked to reteach her points.

Reia completed the GUI with the following dummy features:

* Favorites
* Recipe Database
* Places to Eat
* Timer
* Random Recipe
* Return Home
* Emergency Stop

Progress video of the GUI was screen recorded and shared with the group.

Upon discussion, the group decided to change the orientation of the toolbox, to prevent any errors from occurring,

Akanksha completed the reteaching of her points and changed the orientation of the toolbox.

The file was reshared.

**Date: 26/03/2025 - Wednesday**

Reia ensured the RoboDK file was updated from the old one to the latest one shared by Akansha.

Reia reached out to Dr. Judhi for a feedback/consultation call with the group at 15:00.

Reia completed all the features and ensured they were all working, sending the progress to the group.

The group received feedback from Dr. Judhi regarding our simulation. Asked the group to start focusing on the report now and provided insights into what needs to be added.

After receiving feedback, the group gathered for a quick Teams meeting to discuss and review the feedback received.

The team decided to add two robotic arms, however, faced issues with the license.

Reached out to Dr. Judhi and Mr. Bittu regarding the same.

**Date: 27/03/2025 - Thursday**

Dr. Judhi shared a report sample with the group for reference.

The group decided to schedule a meeting on Friday, 28th March 2025 to discuss and then divide the parts of the report.

**Date: 28/03/2025 - Friday**

Reia created a GitHub repository and added Salma and Akansha as collaborators.

The meeting concluded with the following plan for feedback:

* Abstract + Keywords
* Intro
* What Control System Include
  + User manual & Instructions Given
  + Components included
  + Recipe database & Favorites
* What Control System does
  + Automated Cooking Process
  + Filling Up Customized Cupboards
  + Tablet Interface & Sensors
* Simulation & Integrations
  + Scope of Work - Requirements
  + Components - Brand Options
  + Simulations Pictures - Explanation
* Conclusion
* Future Research

The plan was shared for feedback with Dr. Judhi, based on the feedback received from him the group formulated a new structure.

**Date: 29/03/2025 - Saturday**

Updated report layout shared by Akansha:

* Abstract
* Introduction + Problem being faced
* Designing control system + requirements
* Selection of components + integrations (including sensors)
* Building simulation + challenges
* Conclusion
* Further implications

**Date: 30/03/2025 - Sunday**

Reia and Salma agreed with the report layout. The group divided the parts.

* Abstract - Reia
* Introduction + Problem being faced - Salma
* Designing control system + requirements - Akansha
* Selection of components + integrations (including sensors) - Reia
* Building simulation + challenges - Salma
* Conclusion - Akansha
* Further implications – Akansha
* Others:
  + Video Demonstration – Reia
  + GitHub – Reia
  + Logbook – Reia

The group decided to finish the report by Friday 4th April, to receive feedback during the makeup class on Saturday, 5th April 2025.

Akansha created the Google Docs sheet with all the report parts written and shared the same with the group.

**Date: 02/04/2025 - Wednesday**

Reia created a Google Slides presentation slide and shared the same with the group.

Reia completed the GitHub commits and updated the ReadMe file.

Reia worked on the logbook.