

Criterion B: Record of Tasks

Task Number	Planned Action	Planned Outcome	Time Estimated	Target Completion Date	Criteria
1.	Searching for an individual that has a problem	A client that has a problem that can be solved with programming and relates to the criteria for the IA.	3 weeks	June 16, 2020	A
2.	First meeting with client to comprehend the problem and expectation of the application (see Appendix 1)	Understand what the client's ideas and expectations, and the application that he desires.	1 hour	June 18, 2020	A
3.	Review discussion with client about the solution	Understand the problem, come up with a solution, and know the expectations of the program. Write the success criteria.	4 days	June 24,2020	A
4.	Discussion with supervisor about proposal and problem	Getting comments and advice on the program and solution for client.	1 hour	June 30, 2020	A
5.	Discuss with client about final thoughts of problem and review of the criteria's for application	A client-approved success criteria list and solution is accomplished.	1 hour	July 4, 2020	A
6.	Making a design of the program	Look at what are essential in the program and the windows that should be shown, make a drawing of it and send it to the client.	2 days	July 7, 2020	B
7.	Interview with Client and get Feedback on prototype/drawing (see Appendix 2)	Get comments from the client to see what is missing to be implemented.	1 hour	July 8, 2020	A
8.	Looking at Feedback given by client	Evaluate the feedback given. Write the overall ideas of the application and what is needed. Improving on the success criteria.	1 day	July 8, 2020	A, E
9.	Define the criteria for success	Understand what the client needs and what is needed to make the application and finish the success criteria.	2 days	July 11, 2020	A
10.	Development of the UML Conceptual Model using the success criteria	Making UML class diagrams, defining classes and variables for the application without establishing relationships	1 week	July 19, 2020	B
11.	Design the application for the first prototype	Draw and outline the details of the prototype.	3 hours	July 20, 2020	B

12.	Creation of the GUI for the first prototype using Javafx and Scenebuilder to make the main class, subclass, windows, FXML attributes and methods needed	A GUI of the outline of the GUI for the first prototype, without any code.	1 week	July 28, 2020	B, C
13.	Investigate the relationships between the classes and the initialized variables	understanding the relationships between classes and the type of variable.	3 days	July 31, 2020	B
14.	Constructing algorithms, methods and actions for buttons and windows	Designing the code for each of the objects that appear in the GUI.	1 week	August 9, 2020	C
15.	Understand the concepts and methods of the materials used in the uArm that needs to be implemented in the application that wasn't covered in the IB Syllabus	Know the protocols and the firmware of the uArm. Additionally, understand all the relationships in the classes and implementation of communication. This can be done, with the help of the supervisor when trying to establish a connection with the arm (see Appendix 3).	2 months	August 10, 2020	B
16.	Establishing a connection with uArm	A connection between the user and arm is achieved.	2 days	August 12, 2020	C
17.	Make the uArm move	Communicating with the uArm, whereby making it move to the desired location.	2 weeks	August 28, 2020	C
18.	Setting limits to the uArm's movement	Using trial and error to test all limits that the arm can read and setting it as a limit for the arm.	2 weeks	September 11, 2020	C
19.	Improving the UML of all the methods used in the application.	Investigating variables and methods in the application, to develop new and improved UML diagrams of all the classes and their relationships.	1½ weeks	September 23, 2020	B
20.	Review the UML conceptual model with supervisor	Polishing the UML conceptual model into a final version to be implemented.	1 hour	September 25, 2020	B
21.	Finish the design of methods used for the application	Various flowcharts of the methods that is going to be used in the application.	1½ weeks	October 7, 2020	B
22.	Implement all methods into the first prototype	Creation of the first prototype, working with the arm, by making it move. And a functioning GUI.	1 week	October 15, 2020	C

23.	Test the methods used in the prototype	Test and polish the movement of the uArm to make it smoother and precise, as well as the other classes.	1 week	October 22, 2020	C, D
24.	Finish the first prototype	Complete all the methods and GUI needed to show the client.	1 month	October 26, 2020	C, D
25.	Meeting with client to show the first prototype and receive feedback (see Appendix 4)	Get feedback and know the problems and the good aspects of the prototype.	1 hour	October 26, 2020	A
26.	Understand all the feedbacks and improve on existing application	Understand all feedback and features that the client would want to add.	1 hour	October 27, 2020	A, E
27.	Plan the Implementations that the client suggested	Design the methods and new GUIs that are needed to further meet the needs of the client.	1 week	November 13, 2020	B
28.	Implement suggestions from client in the application	Adding things that further meets the needs of the client as well as adding new components.	1½ weeks	November 26, 2020	C
29.	Polish and test application	Getting rid of unnecessary code in the application as well as adding comments explaining the code and also testing the application's functionality.	2 weeks	December 11, 2020	C
30.	Polish the movement of the arm	Establishing the limits of the arm in a way that is extremely safe to be used.	1 week	December 17, 2020	C
31.	Review the application with the supervisor	Checking if there are any error with the application and fixing them.	1½ hours	December 17, 2020	C, D
32.	Finish Final Application	A fully functioning final prototype of the application.	1½ months	December 22, 2020	C, D
33.	Show final application to an end user (see Appendix 5)	Further polish the application by getting a different point of view.	1 hour	January 18, 2020	A, C, D
34.	Show client final prototype and get feedback (see Appendix 6)	Showing the application to the client and get feedback.	1 hour	January 26, 2021	A
35.	View the feedback given by client	Understanding the feedback given and know how to improve in the future as well as possible extensions.	1 day	January 26, 2021	A, E
36.	Filming of the application	Record the movements of the arm and explain the functionalities of the application.	1½ weeks	February 12, 2021	D