**EE/CME 495 Project Management Update**

Group Number: 5

Group Members: Jordan Smith, Thomas Hu, Jason Wong

Dates Covered: September 20, 2019 to October 17, 2019

Part 1: Analysis of Task Progress

Shown below is the work completed by the group during the time period of September 20, 2019 to October 17, 2019.

The task numbers in the tables of this document correlate to the task numbers shown in the Work Breakdown Structure table found in revision 2 of CD2 – EE495/CME495 Project Plan.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Task** | **Initial Completion (%)** | **Planned Completion (%)** | **Actual Completion (%)** | **Planned Hours** | **Actual Hours** |
| 1.0 Create Problem Definition and Initial Project Plan | 0% | 100% | 100% | 10 | 13 |
| 1.1 Create Problem Definition | 0% | 100% | 100% | 5 | 6.5 |
| 1.2 Create Initial Project Plan | 0% | 100% | 100% | 5 | 6.5 |
| 2.0 Sign and Return Non-Disclosure Agreement to Client | 0% | 100% | 100% | 1 | 1 |
| 4.0 Create Requirements Specification | 0% | 50% | 50% | 2 | 2 |
| 5.2.2 Spec System Components | 0% | 50% | 25% | 5 | 6 |

Shown in the table below is the planned and actual number of hours spent by each team member.

|  |  |  |  |
| --- | --- | --- | --- |
| **Group Member** | **Planned Hours** | **Actual Hours** | **Main Tasks** |
| Jordan Smith | 5 | 9 | 2.0, 4.0, 5.2.2 |
| Jason Wong | 5 | 3 | 1.1 |
| Thomas Hu | 6 | 7.5 | 1.2, 3.0 |

Significant Deviations to the Project Plan are described below:

Jordan Smith made a lot of progress in determining which type of motor suits the client’s best needs. Unfortunately, the supplier is taking some time in responding about quotes. Jordan was able to make progress with the supplier by referring them to the client as contacts. Jordan realized the choice of a gearbox is necessary in lowering the rpm and increasing the torque from the motor to meet the client’s needs.

Jason Wong was working on researching the microcontroller for the rotational table. This task was straightforward in determining the correct microcontroller use for the time being. In case of any changes to the motor choice another microcontroller will be chosen.

Thomas Hu did not get the chance to do much work on creating the requirement specifications due to a heavy course load and because the group is still waiting for the client to provide hard requirements for the system.

More time was spent creating the problem definition and project plan than expected because extra hours weren’t budgeted towards proofreading and editing the documents. As such, 3 more hours were added to the completion time of the task.

Part 2: Future Task Planning

Shown below is the work that is planned to be completed by the group during the time period of October 17, 2019 to October 31, 2019.

|  |  |  |  |
| --- | --- | --- | --- |
| **Task** | **Initial Completion (%)** | **Planned Completion (%)** | **Planned Hours** |
| 4.0 Create Requirements Specification | 12.5% | 100% | 7 |
| 5.0 Draft Detailed System Design Document | 0% | 50% | 15 |
| 5.1 Perform System Design | 0% | 50% | 4 |
| 5.1.1 Create Block Diagram | 0% | 50% | 1 |
| 5.2 Perform Hardware Design | 0% | 50% | 10 |
| 5.2.1 Draft Design Schematics | 0% | 50% | 5 |
| 5.2.2 Spec System Components | 50% | 100% | 5 |
| 5.3 Research Code Design | 0% | 25% | 5 |
| 5.3.1 Design Source Code | 0% | 25% | 5 |

Shown in the table below is the planned number of hours to be spent by each team member.

|  |  |  |
| --- | --- | --- |
| **Group Member** | **Planned Hours** | **Main Tasks** |
| Jordan Smith | 20 | 5.2, 5.2.1, 5.2.2 |
| Jason Wong | 12 | 5.2.2, 5.3, 5.3.1 |
| Thomas Hu | 12 | 4.0, 5.1, 5.1.1 |

Part 3: Risk Mitigation

The largest risk associated with the project is the choice of a gearbox and motor. This will be a major component of the design for the project. The choice will determine how the rotational table will function. To combat this risk, we are contacting suppliers and researching the best possible course of action for the project.

Another major technical risk to the project is the time it takes for the supplier and client to respond to our questions. This poses a problem because it can potentially delay the progress of our project if we do not have enough information to proceed with our design and testing. We are trying to mitigate this risk by maintaining professional communication with the suppler/client and responding to emails as quick as possible.

Another problem is the initial position and recall position for the motor. This means our previous estimated time may be inaccurate and our future projections will be higher. To mitigate this risk, we are going to start researching ideas on how to code this problem. Jason Wong will research the idea of memory management for the positioning problems.