# Planning and managing a project to completion

Our task as the Motions component of our team, was to fabricate our designs into a working marble elevator for our ENGG3000 Project. The main portion of our scope revolved around the working of the DC motor and belt combination, as well as collaborating with Communications and Structures teams to integrate different components of the product.

As a third-year student, I was expected to take a more active role in the management of the project. This includes allocating work, ensuring accountability, and making decisions to direct the project to completion. Planning the project involved working with other teams, and coordinating work. Our main focus was ensuring the pulley system work and that the PWM control of the motor would work using minimal components. This would take concentrated efforts and additional time dedicated outside of class, coordinating when people would be available was a major factor.

We conducted meetings with members of each sub-team, comprised of a mix of second- and third-year students. During these meetings we would discuss the work needed to be done, set deadlines and determine which tasks would need collaboration between each group. The main issue we found was the dependency of many of the components on one another. It was clear we had not prepared the right documentation, and that a number of team members were not on the same page with the project.

As a result, we struggled to complete the project in time. Many team members would be uncommunicative, and deadlines were not met. As the Motions team we became increasingly responsible for the direction of the project during the construction phase. There was a clear issue with our preparation, and as a result managing the project and team members became a slow and ineffective process.

**Describe**

Its critical to reflect on not only the positive experiences, but also in instances that can inform you of potential improvements. The time spent completing this project has been a stressful one, and I attribute this most of all to poor project management. It’s essential to have a consistent and well communicated plan when managing a project to completion, and to know when that plan needs change.

During the completion of our ENGG3000 project, I was actively involved in the management of the project along with other third-year students. It was clear that there was an issue with communication and time management, people have busy lives and learning to coordinate schedules was a major challenge. I was initially overwhelmed with the additional responsibilities. Inefficient communication and scheduling left the project halted at times, and I felt that without proper resources that I was taking on more work personally than was reasonable. The team, and as a result the project, lacked a definitive direction due to a breakdown of communications.

After some time, I grew accustomed to managing team members and the project. My main concern was creating a Minimum Viable Product for demonstration, this required me to exercise delegation skills as well as time and schedule management. In future my approach must be improved. It is clear that hasty preparations last minute is not a sustainable way to work on a project. Before this project, I would have assigned large sections of work to each team member and relied on their want to complete the project for accountability. I would have completed work last minute and made general and vague plans for future implementation. This is an inefficient solution and leads to significant differences in interpretation from member to member. In the past I would have been content to say “good enough” and move onto the next task. Effectively managing a team to bring a project to completion takes clearly defined tasks with little room for interpretation, with accurate and detailed documentation to back it up.

My experiences have been a result of bad habits, kept throughout previous projects and learning experiences. It’s clear that while my technical skills need work, my time and project management skills need an equal amount. This experience has taught me a lot about interdisciplinary skillsets, working in teams, and project management. In both my personal and professional life, I need to be more effective at dividing tasks and completing them consistently. This is a fundamental that should be exercised regularly for tasks large and small. Accurate planning ahead of time ensures the project will have as few integration issues as possible and is essential for a team to work together. In future endeavours, I hope to implement this knowledge into a more comprehensive method of management.