Project Charter:

Improved Design of Mobility Devices

Team 526

Group Members:

Michael Beech
Dionsse Carti
Chase Craft
Leah Fiedler

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1.0 Project Scope

1.1 Project Description

A device that either supports all or some of a person's body weight, while still requiring them to perform some form of cardiovascular activity to move. This device should aid the physically impaired by slowing their decline from being ambulatory to non-ambulatory.

1.2 Key Goals

For this project, there is a list of key goals that have been laid out to aim for. These goals are to ensure that our final product meets the particular needs originally specified by the customer. According to these goals, the device should be designed to:

- Support some or all of the user's weight
- Aid the user in every day moving about
- Require cardiovascular exercise
- Have ergonomic design
- Be affordable for the average consumer
- Be sturdy for safety & durable for longevity

1.3 Markets

The primary markets that this device is being designed for is elderly people that can't put most of their weight on their feet and cant use walkers or canes.

Some secondary markets that we are targeting include people in muscle rehabilitation or individuals inflicted by movement impairing diseases. These markets will also be considered in the designing of this device but will come second to the needs required by the primary market.

1.4 Assumptions

In order to design this device as efficiently as possible, while maximizing quality and minimizing cost, various assumptions were made. These assumptions are given below.

- Users are primarily elderly and/or movement impaired
- The operation of the device is relatively quiet
- Users are able to walk or pedal
- The device as a whole is durable enough to withstand the outdoor elements
- The device is lightweight

1.5 Stakeholders

The numerous stakeholders that will be in some way affected by the design and production of our device were all determined. The stakeholders determined will play primary roles in the production, distribution, sale, and advertisement of our device. These stakeholders are listed below.

- Dean's Office
- Dr. McConomy
- Dr. Devine
- Dr. Hubicki

2.0 Code of Conduct

2.1 Mission Statement

To have fun and work hard throughout the entirety of our project while staying focused on our main goal. The goal is to help the physically disabled by designing an improved mobility device that will slow their progression from ambulatory to non-ambulatory.

2.2 Team Roles

Each team member will hold a specific role and title in order to upkeep accountability. Below are the roles that are going to be present along with who is going to fulfill which role. Note: There can be assistance between the roles

Project Manager - Leah Fiedler

The project manager has the overall responsibility for the successful initiation, planning, design, execution, monitoring, controlling and closure of the project.

Material Engineer - Chase Craft

The materials engineer will ensure that the materials selected will be able to withstand the environment that it is placed in. This entitles finding the factors of safety to provide for safe usage of the product. The material engineer will also order the necessary materials needed.

Design Engineer - Michael Beech

The design engineer will be responsible for the brainstorming and development of various solutions to our problem through the use of various design thinking techniques.

Systems Engineer - Dionsse Carti

The systems engineer will be in charge of the use of logistics in testing and evaluation to ensure successful system development, design, and implementation. They will ensure that all aspects of the project and system are taken into consideration when developing the project.

2.3 Communication

In order to communicate effectively with one another, GroupMe is an acceptable form of contacting. When it comes to contacting any advisors, instructors, and sponsors, email is the best form of communication. Where appropriate, in-person meetings will help with delivering information between the included parties.

2.4 Dress Code

During informal meetings, casual attire, or anything comfortable, is acceptable and encouraged. During all face to face meetings with the sponsor business, casual attire is expected. During formal presentations, professional attire, like dress pants and a button-down, is required.

2.5 Attendance Policy

Meetings will be scheduled in advance with the approval of all team members and therefore attendance is expected at all planned meetings. However, if an issue comes up where a team member cannot make a meeting, they are expected to communicate the reason for their absence as soon as possible. Attendance will be recorded and extended periods of absence will be taken up with Dr. McConomy.

2.6 Statement of Understanding

Upon careful reading of the above Code of Conduct, I am aware of my responsibilities for the duration of this project. I agree to comply with the procedures and regulations outlined for me and, to my best ability, contribute to the learning and understanding of this project.

Michael Beech		09/09/2018
Dionsse Carti		09/09/2018
Chase Craft		09/09/2018
Leah Fiedler		09/09/2018

3.0 Jung Typology Personality Test

To get a better understanding of each group member's personality, the Jung Typology Personality was taken. The results were recorded and can be seen below:

Michael: **E**xtrovert I**N**tuitive **T**hinking **J**udging (**ENTJ**)
Dionsse: **E**xtrovert **S**ensing **F**eeling **J**udging(**ESFJ**)
Chase: **I**ntrovert I**N**tuitive **T**hinking **J**udging (**INTJ**)
Leah: **I**ntrovert I**N**tuitive **F**eeling **J**udging (**INFJ)**