MILESTONE 2: Project Charter

Bryson Potts, Joseph Earnest, Manning Owens, Steven Harrington, Tamara McCaskill

Florida State University, Panama City

EML 4551C – Senior Design 1

Dr. Damion Dunlap

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Mission Statement

Our mission is to demonstrate skills acquired through FSU-PC's mechanical engineering program by constructing a boat that is capable of meeting the RoboBoat competition standards.

Team Roles

Team Lead - Bryson Potts

The team lead focuses on the overall production of the project and is knowledgeable in all areas of the project's requirements.

- Main point of contact with advisor/sponsors
- Oversees the entire project to make sure that all areas are covered
- Ensures that everyone understands what they are doing

Secretary - Tamara McCaskill

The secretary maintains group organization.

- Records meeting minutes
- Reorganizes throughout the project as necessary

Builders - Manning Owens, LJ Earnest, and Tamara McCaskill

The builders focus on the physical design, fabrication and assembly of the project. These components include:

- Material Selection
- Hull Design
- Construction and Fabrication
- Propulsion Design
- Weight Distribution

Programmers - Bryson Potts, Steven Harrington

Programmers select electronic components and implement code for the project. They must discuss their strategies with the rest of the team before programming the function. Their primary duties are as follows:

- Write and test code for use.
- Ensure actuation of electronic parts.
- Design and maintain a project focused website.

Additional project related tasks will be assigned based on team member availability.

Communication Policy

University emails, official communications, and outside resources, including but not limited to: Google Documents, Zoom, WhatsApp and Basecamp, will be used as methods of communication. Scheduling meetings and assigning work will occur through WhatsApp, any conflicts to completing assignments or attending meetings should be stated at least 24 hours in advance via WhatsApp. File sharing will occur through either Basecamp, Google Documents, or via preferred email address. It is the sole responsibility of each member to receive such communications and to respond as needed within 24 hours.

Dress Code Policy

Policy Statement:

All Clothing must be in good taste and conducive to the function. RoboBoat members will wear business attire for presentations/sponsor interactions and casual attire for team meetings.

Business/Professional Attire:

Members should choose business attire such as dresses, pants, shirts, blouses, dress shirts, ties, suits, and skirts. Open toe shoes and sandals are not allowed

Casual Attire:

Members should choose casual attires such as jeans, shorts, and any other relaxed clothing for everyday wear. Open toe shoes and sandals are allowed.

Attendance Policy

Attendance policy overview.

Participants in the RoboBoat group are expected to be present and on time for all scheduled project meetings and work. Being tardy or absent should be minimized as it causes disruptions and burdens colleagues.

Attendance infractions.

A point system will be used to track infractions and tracked via WhatsApp.

1. Notified absence sent via WhatsApp or Basecamp: 0 point.
2. Unnotified absence: 1 point.
3. Tardy (more than 30 minutes): ½ point.

Overview of disciplinary action for attendance infractions.

After a team member has accrued a certain amount of points from infractions the following disciplinary actions will occur.

3 points: Verbal warning.

4 points: Corrective counseling with an advisor.

5 points: Termination/Removal from the group.

Attendance policy exceptions.

Absence because of illness, jury duty, injuries, or other notified unforeseen circumstances are exempt from disciplinary action.

Code of Conduct

The RoboBoat team will

1. Carry out their responsibilities in a timely manner, with notice of delays.
2. Practice honesty and integrity to the trust placed in completing work.
3. Be respectful to other members.
4. Openly share information and cooperate with peers in discussions and meetings
5. Be present for all meetings with prior notice of delays or absences.
6. Abide by the principles established in this code

Project Description

The goal of this project is to design and build a boat with autonomous function that is capable of completing the course objectives for the 2021 RoboBoat Competition.

Key Goals

The key goals of this design project are:

- Construct an easily maneuverable, stable boat
- Fully autonomous navigation of surroundings with a remote-controllable mode
- Be able to determine surrounding obstacles/environment
- Implement a visual feedback system capable of relaying the POV of the boat.

Market

The market for this project includes the companies that attend the competition scouting for potential employees based on the technical skills demonstrated, and companies that focus on autonomous maritime development. Some of these companies include:

- Office of Naval Research
- SolidWorks
- NVIDIA
- Velodyne Lidar
- Siemens
- Mathworks

Stakeholders

Stakeholders are the Individuals and Organizations who want the project to be successful. Some of these include:

- Project Advisor
- Dr. Damion Dunlap
- Florida State University Administration
- Florida State STEM Department
- SPEAR club
- Independent RoboBoat Club Donors
- RoboBoat Senior Design Team

Assumptions

- Any monetary need is funded
- Any need for tools and manufacturing is available
- Covid-19 will not hinder the ability to work on the RoboBoat
- Competition will be held despite Covid-19
- Weather will not cause the competition to be cancelled
- Weather will not conflict with the ability to test the RoboBoat
- Will be competing in freshwater
- No big waves or wildlife disturbance
- Corrosion of the boat is negligible
- Able to perform testing and maintenance on the boat as often as desired
- Meets criteria to qualify for competition
- Input and help from the Electrical Engineering team
- Purchasing and manufacturing components are made/delivered on time

Statement of Understanding

(i) I am aware that RoboBoat group's policies are available to me in the POLICY folder on Basecamp. It is my responsibility to familiarize myself with these policies.

(ii) In addition, I confirm that I have received, read and understood the following policies:

- Mission Statement
- Team Roles
- Communication
- Dress Code
- Attendance Policy

(iii) I agree to conduct my activities in accordance with RoboBoat group's policies and understand that breaching these standards may result in disciplinary action up to and including termination/removal from the group.

Signed: Bryson Potts Date: 1/20/2021

Signed: Date: 1/20/2021

Signed: Tamara McCaskill Date: 1/20/2021

Signed: Date: 1/20/2021

Signed: Steven Harrington Date: 1/20/2021

References

RoboNation. (2021). *RoboBoat.* RoboNation. https://robonation.org/programs/roboboat/