PROJECT PLAN

Great Naval Orange Race with eli2

Version No.	Description	Active as of:
1	Things in Version: • Up until Workshop 1	2/1/2023

Great Naval Orange Race with eli2

Workshops and Demonstration

Team Leads:
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Release Version: 1
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I. Abstract and Acronym List:

Document Abstract:

This document will provide information on the scope of each workshop/demonstration as well as the work breakdown schedule of each event.

Acronym List:

GNOR =Great Naval Orange Race
POA = Plan of Action

Table of Contents:

II. General Project Information

Project Title:	GNOR with eli2

Description:	This project will be tailored around multiple workshops and/or demonstrations with the goal to aid UCF freshman engineers

Vision:	Provide young engineers with resources to guide them through their first collegiate engineering project
Parallel Goals:	To increase RSO outreach amongst the younger class and encourage early involvement within projects and RSO throughout the university

Milestones	Success Criteria	Dependencies/Risks	Due Dates
2/17 – Hull Workshop 3/24 – Navigation Demonstration	27 or more student boats to finish the GNOR	Dependency: Student engagement and turnout	April 14, Race-Day

Project Constraints:	Fast-paced project timeline and expeditiousness of the team

III. Work Breakdown Schedule

This section is dedicated to work breakdown based on the weekly schedule of the semester. General information will be covered in this section. More in-depth description and Workshop/Demo breakdown is covered in later sections.

Week 5: January 30th – February 3rd

Tuesday, January 31, 2023 – Meeting with Mrs. Sullivan and Luke on how eli2, the TI Lab, and EGS 1007 can collaborate and produce a cohesive semester.
Attendees: Adrianne Gutman, Tristan Koopman, Luke Ponte, Mrs. Sullivan
Time: 12:00 pm || Location: EGN1 Rm 251

Wednesday, February 1st – eli2 SC meeting
Scope: Recruit eli2 members to become a part of the project.
Attendees: Tristan Koopman, Luke Ponte
Time: 7:30pm || Location: HEC 101

Thursday, February 2nd – Meeting with class GTA's and co.
Scope 1: Connect with student-teacher liaisons. Asking for any input and or constructive criticism on the POA created on 1/31
Attendees: Adrianne Gutman, Tristan Koopman, Luke Ponte, Mrs. Sullivan, Maxwell Booth, Jeremy Luckett, Robotics: Dwight and ?? (didn't catch his name D:), Mr. Don
Time: 9:30am || Location: EGN1 RM251

Scope 2: Create a team and a start plotting a time for a team meeting to develop workshop layout and foundation based on form sign up at the SC meeting

Friday, February 3rd – Event Announcement
Scope: Announce the upcoming event (2/17) to the freshman body during the Friday lectures
Information covered during Luke's brief presentation:

- Different types of materials available to build the boat hull. Recommendations (Styrofoam – easily shapeable and relatively low cost) and what to steer away from (2L bottles and Tupperware containers)
- Emphasizing to NOT pre-glue Styrofoam blocks before shaping (if this is their chosen materials)
- We are here to help, not build it for the students. (Trying to leave creativity entirely up to the students and their team)

Attendees: Luke Ponte (main speaker), Mrs. Sullivan, GTAs, Adrianne Gutman
Time: 8:30 – 12:30 (starting 15min talk at the start of each hour) || Location: VAB

Overall Tasks to be completed throughout the week:

- Create sign up form via Google Forms

- Establish general POA for the semester
- Team recruitment through eli2 SC meeting – then send out poll for a meeting time

Week 6: February 6th-10

Monday, February 6th – Labs
Scope: Start introducing the QR code and group sign up to the teams at each lab throughout the week
Attendees: GTAs
Time: Throughout the day || Location: EGN 260

Tuesday, February 7th - Labs
Repeat of Mon, 2/6
Scope: Troubleshoot signup issue … more sign ups than projected.

Wednesday, February 8th – Labs
Everything should be planned out and prepared for workshop 1

Thursday, February 9th – Labs
Repeat of Mon, 2/6

Friday, February 10th – Lecture Day
Scope: Luke iterates the event again during main lectures. Announce any new information about the event to the students
Information covered during Luke's presentation:

- Different types of materials available to build the boat hull. Recommendations (Styrofoam – easily shapeable and relatively low cost) and what to steer away from (2L bottles and Tupperware containers)
- Emphasizing to NOT pre-glue Styrofoam blocks before shaping (if this is their chosen materials)
- We are here to help, not build it for the students. (Trying to leave creativity entirely up to the students and their team)

Attendees: Luke Ponte (main speaker), Mrs. Sullivan, GTAs, Adrianne Gutman
Time: 8:30 – 12:30 (starting 15min talk at the start of each hour) || Location: VAB

Overall tasks to be completed throughout the week:

- Receive and determine workshop location based on form responses throughout the week
- Alter any general plans about the upcoming Hull Design Workshop
- Determine meeting time to go into deep detail about the event about the information the event will contain along with the POA and breakdown of the event (need at least a loose idea)
- Lay foundation (at BARE minimum) for the upcoming workshop

Week 7: February 13-17

Monday, February 13th – Labs
Scope: Present QR code again for group sign up to the teams at each lab throughout the week
Attendees: GTAs
Time: Throughout the day || Location: EGN 260

Tuesday, February 14th – Labs
Repeat of Mon, 2/13

Wednesday, February 15th – Labs
Repeat of Mon, 2/13

Thursday, February 16th – Preparedness
Scope: Workshop should be completely planned out and ready to present by the end of the day. Make sure all materials are acquired, information has been sent out, and team positions (within the workshop) have been delegated. No questions or ambiguity for the upcoming workshop
Attendees: All
Time: N/A || Location: N/A

Friday, February 17th – Boat Hull Workshop
Scope: Present and complete the workshop. Record workshop for future semester use.
Attendees: Adrianne Gutman, Luke Ponte, TBD
Time: 3:30pm || Location: TI Lab and Loading Bay
Overall tasks to be completed throughout the week:

- Workshop
- Team rolls delegation
- Conclusion of Workshop 1

Week 8: February 20th-24th

General scope of the week: shift team focus from the first workshop to the now upcoming navigation/propulsion workshop scheduled for 3/24 at 3:30pm
Note: No hard deadlines during this week. Soft deadlines can be set…

Week 9: February 27th-March 3rd

Student Deadline: Boat hulls are due throughout the week depending on their lab section time

Monday, February 27th – Labs
Scope: Boat hulls are officially due within the lab assignment schedule
Attendees: N/A
Time: Throughout the day || Location: EGN 260

Week 10: March 6th-10th

Week 11: March 13th-17th
Spring Break

Week 12: March 20th-24th
Friday March 24th, Propulsion/Navigation Demo

IV. Hull Design Workshop

Overall Workshop Goal:

Give students more information and recommendations towards material use towards their hull design. Provide students with techniques and ways to turn their originally envision boat from basic material into a hull or at least a chunk-able project that they understand how to tackle.

Event Info:

Location: TI Lab and Loading Bay
Date: February 17th || Time: 3:30 – 6:30pm
Projected Student Turnout: students – 240 (3 sets of 80) || total teams - ##
Projected Team Member Turnout:
Overall Student to Team Member ratio:

Event POA:

Event Set Up:

- Student committee members and Robotics members show up 15-30 min prior to event start time
- Make sure the project team has an understanding of what we are doing and how we are here to help guide and provide recommendations for students and their design.
- Are all student resources prepped and available. List of resources/material:
    - Foam Cutters
    - Paper
    - Rulers
    - Team Member Hands
    - Hot Knifes
    - Templates

Start Time: 3:30pm

During Workshop:

- Begin in either location. Location TI Lab will start with demonstration and explanation of:
    - Common boat shapes
        - U-Shape, V-shape, etc.
    - Common techniques for each material
        - Styrofoam: templating
        - 3D printing: CAD/SolidWorks
        - Wood: General techniques
        - Other common techniques
    - How to get our attention

        - Wave us down, come up to us, don't be shy (Red and Blue cups?)
- After 30 min in rotate the group to the second location
- Location Loading Bay will be comprised of primarily technique application practice

End Time: Varies. 1 hr per group

Post Workshop:
Clean Up Crew: Robotics and eli2 student committee volunteers

Overall Conclusion:
- Make sure students leave with at least a solid start on their hull or a POA they can execute in order to create a solid base to their GNOR project

Overall Workshop Set Up:

There will be two different locations working simultaneously.

Location 1: Loading Bay
Location Lead: TBD
Location Committee Members:

The loading bay will primarily encompass Styrofoam cutting techniques. Material will be provided (small Styrofoam blocks, hot knifes, and foam cutters).
The loading bay is mainly to allow students to get help and practice working with techniques they can apply on their own to build their boats.

This location will have small stations set up so that the students are able to practice techniques at each 'station'. In addition, each student will be given the chance to practice cutting Styrofoam with hot knifes and foam cutters while following a template. This is to show to students using a template will make a more cohesive hull as well as quicken the hull shaping process for them.

Note: We were unable to choose the atrium for the workshop because there is an event the following morning and the atrium's tables will be getting rearranged the night before (we also can't make a mess in there)

Location 2: TI Lab
Location Lead: Luke Ponte

The TI Lab will encompass a brief overview of other techniques and materials.
Examples:
- Wood scoring techniques
- Adhesives to use
- What is the 'right and wrong' types of Styrofoam
- CAD

Note of Session Location Rotation:

We plan on rotating groups and sections. Meaning that each group will be comprised of two set of 40 students. The two groups will run in each location simultaneously and then rotate to the opposing location at the 30min mark.

Group 1a Location 1: 3:30-4, Location 2 4:00-4:30
Group 1b Location 2: 3:30-4, Location 1 4:00-4:30

Group 2a Location 1: 4:30-5, Location 2 5:00-5:30
Group 2b Location 2: 4:30-5, Location 1 5:00-5:30

Group 3a Location 1: 5:30-6, Location 2: 6:00-6:30
Group 3b Location 2: 5:30-6, Location 1 6:00-6:30

V. Navigation/Propulsions Demonstration

Workshop tailored towards tackling the navigation and propulsion aspect of the GNOR project

VI. Communication Plan

VII. Extra Elements

This section should provide any additional information that the group wants to share related to the project.