



TEC-V

Week 1 Update

...



Our Website!



Our Insta!

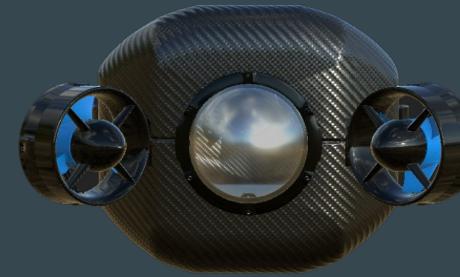


1958



Introduction

- Stephen Coster (OE) Systems Engineer
- Henry Hill (OE) ROV Technician
- Mike Dowling (CSE) Software Integration Technician
- Gabor Papp (ME) Mechanical Design Engineer



Introduction

Progress

Next Steps

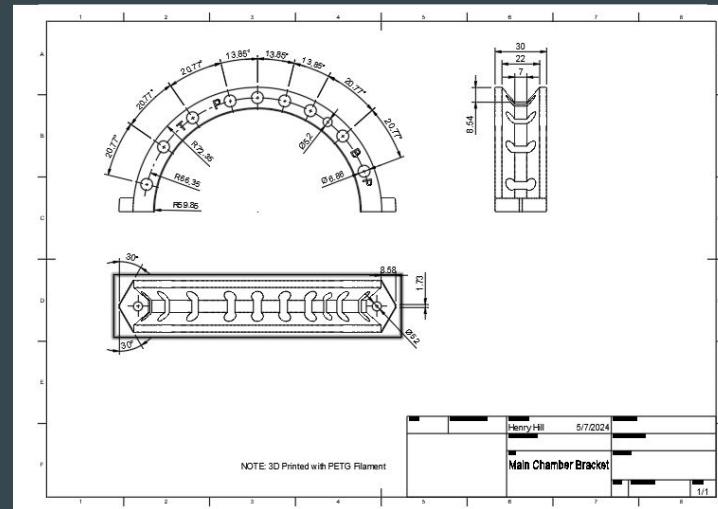
Timeline

The background of the slide is a photograph of a dirt path winding through a dense forest. The path is surrounded by tall grass and low shrubs. The lighting suggests it might be early morning or late afternoon, with long shadows cast across the ground.

Progress

Progress

- Updated: Logo, SDS, Part Drawings
- Sonar Mount for MFP
- Hydrodynamic Sonar Position
- Fairing Paint Schemes
- Lamination at S.C.



Introduction

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Timeline





MFP Sonar Mount

- For Designed Operation
- Seafloor Scanning/Mapping
- 20 Degree Angle



Introduction

Progress

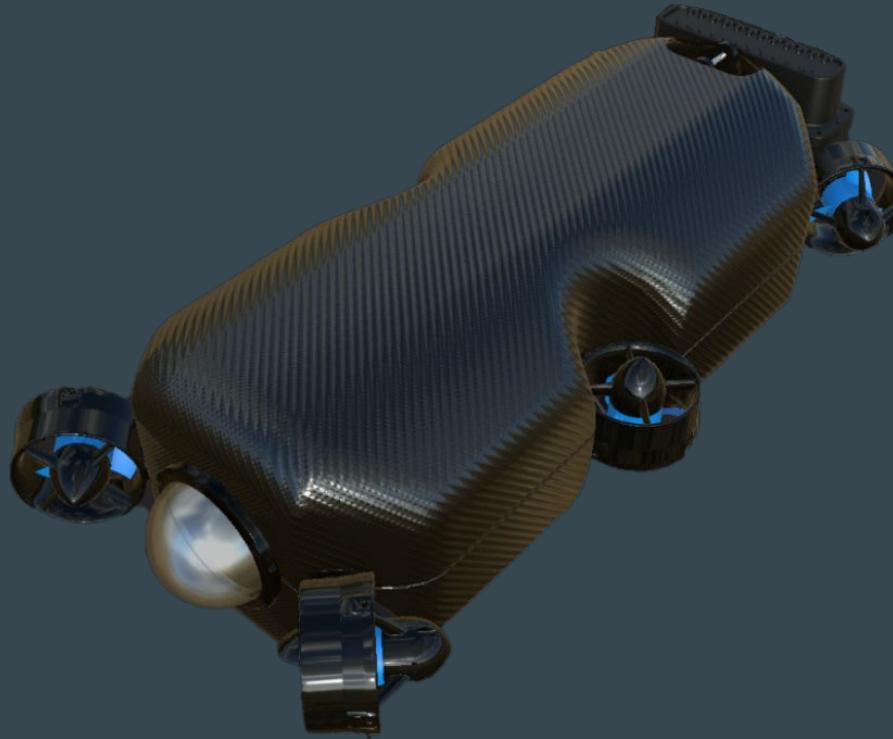
Next Steps

Timeline



Hydrodynamic Sonar Position

- Within Body Profile
- Clear of Thrusters
- Easily Mountable

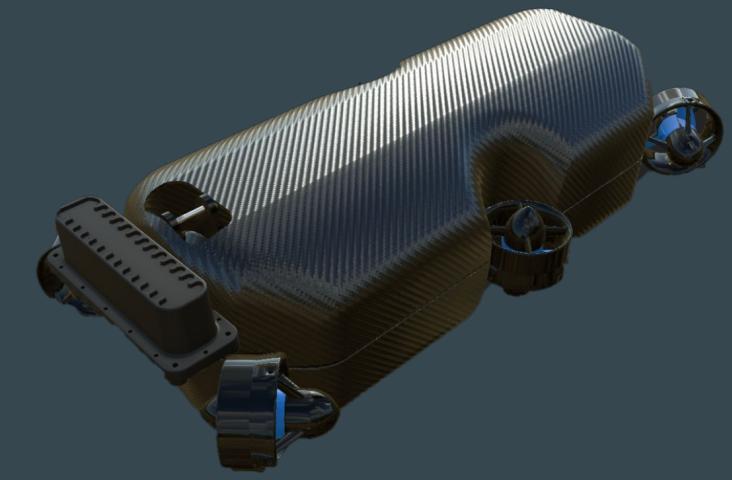


Introduction

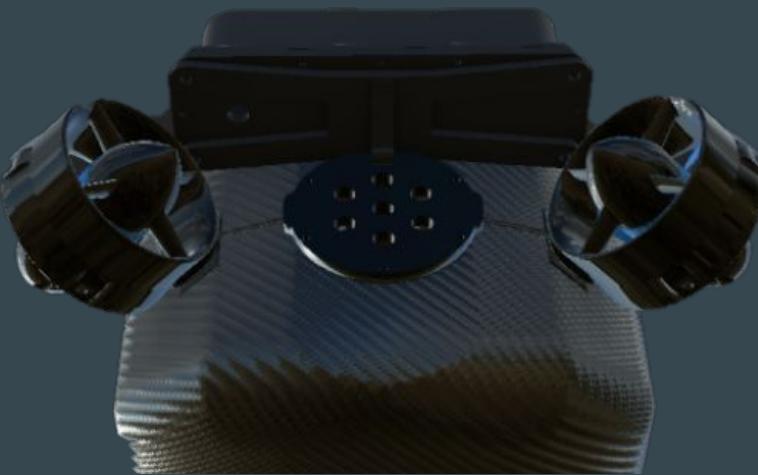
Progress

Next Steps

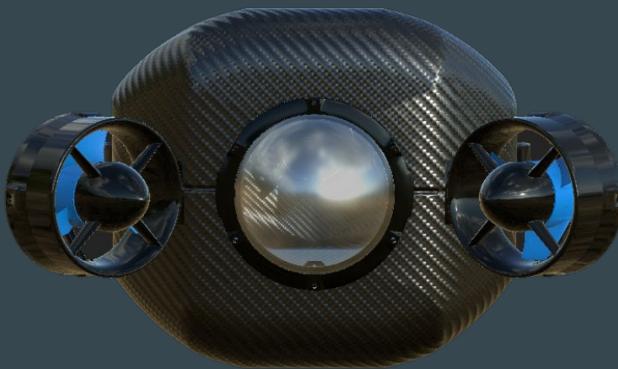
Timeline



13.6"



8.9"





Fairing Paint Schemes



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Fairing Paint Scheme

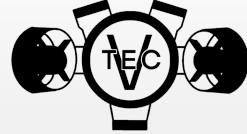


Introduction

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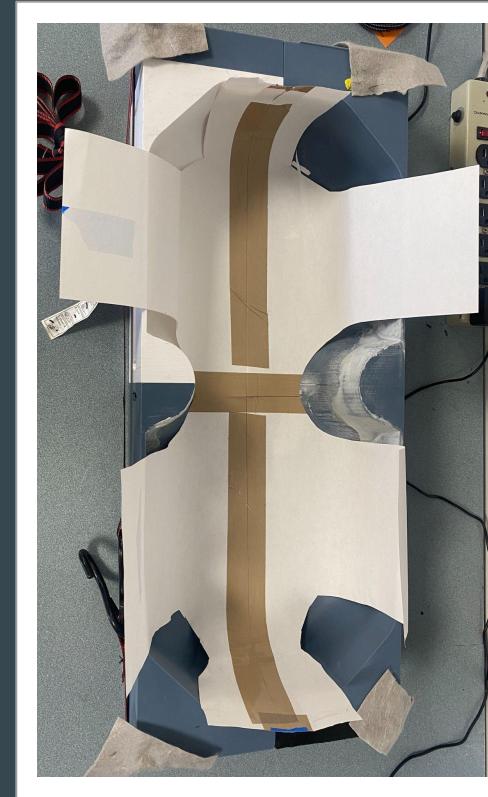
Next Steps

Timeline



Lamination at S.C.

- Created Templates for CF Sections
- Extra Layers on High Stress Corners
- Next Attempt Today!



Introduction

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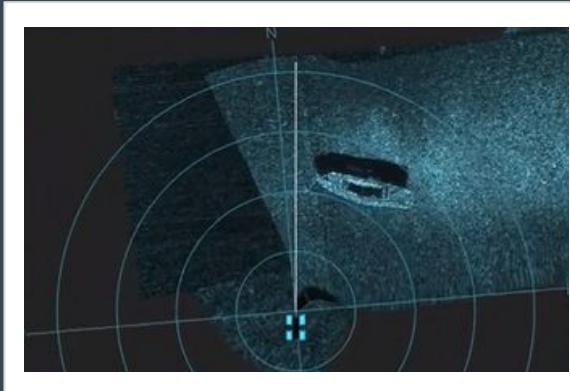
The background of the slide features a photograph of a rugged, rocky landscape under a clear blue sky. The terrain is uneven and covered in various shades of brown and tan, with some green vegetation visible in the shadows. The lighting suggests a bright day with long shadows.

Next Steps



Vehicle Optimization

- System Check and Software Updates
- Pool Testing
- Buoyancy, Trim
- Test Sonar



ceruleansonar.com

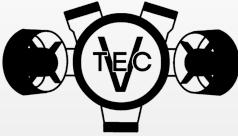


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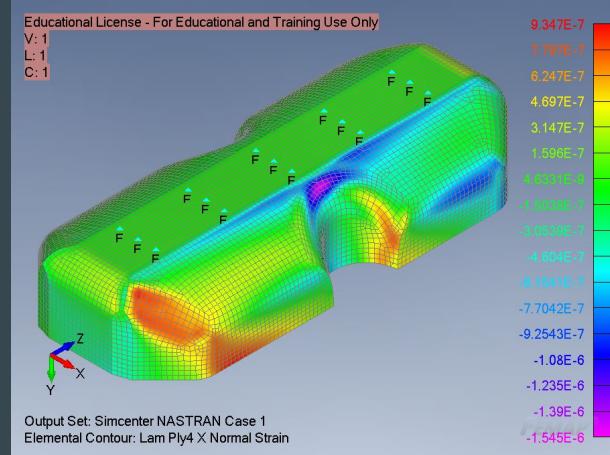
Timeline



Fairing

- Fairing Post Processing
- Manufacture Second Half
- Shock Load Testing
 - FEA and Experimental

$$F_{avg} = \frac{mgh}{\Delta}$$



Introduction

Progress

Next Steps

Timeline



Timeline



| WBS NUMBER | TASK TITLE | TASK OWNER | PCT OF TASK COMPLETE | PHASE ONE | | | | | | | | | | | | | |
|------------|---------------------------------------|---------------|----------------------|-----------|---|---|---|--------|---|---|---|--------|---|---|---|---|---|
| | | | | WEEK 1 | | | | WEEK 2 | | | | WEEK 3 | | | | | |
| | | | | M | T | W | R | F | M | T | W | R | F | M | T | W | R |
| 1 | Sonar Integration | | | | | | | | | | | | | | | | |
| 1.1 | Final Sonar Bracket | Gabor | 0% | | | | | | | | | | | | | | |
| 1.2 | Front Facing Bracket | Gabor | 100% | | | | | | | | | | | | | | |
| 1.3 | Install Sonar on Fairing | All | 0% | | | | | | | | | | | | | | |
| 1.4 | Testing | All | 20% | | | | | | | | | | | | | | |
| 1.5 | Mapping Code | Mike | 20% | | | | | | | | | | | | | | |
| 2 | Fairing Design and Manufacture | | | | | | | | | | | | | | | | |
| 2.1 | Fabricate | All | 30% | | | | | | | | | | | | | | |
| 2.2 | Post Processing | All | 5% | | | | | | | | | | | | | | |
| 2.3 | Fairing Brackets | Gabor | 0% | | | | | | | | | | | | | | |
| 2.4 | Install Fairing | All | 0% | | | | | | | | | | | | | | |
| 2.5 | Buoyancy/ Pool Test | All | 0% | | | | | | | | | | | | | | |
| 2.6 | CFD | Stephen/Henry | 0% | | | | | | | | | | | | | | |
| 2.7 | Laminate Strength Calculations | Stephen | 75% | | | | | | | | | | | | | | |
| 3 | Buoyancy | | | | | | | | | | | | | | | | |
| 3.1 | Finish Code | Henry | 75% | | | | | | | | | | | | | | |
| 3.2 | Finish Modification | All | 70% | | | | | | | | | | | | | | |
| 3.3 | Pool Test | All | 0% | | | | | | | | | | | | | | |
| 3.4 | Trim Weight Sled | Gabor | 0% | | | | | | | | | | | | | | |
| 4 | Deployments | | | | | | | | | | | | | | | | |
| 4.1 | Deploy at pool | All | 0% | | | | | | | | | | | | | | |
| 4.2 | Deploy in cave | All | 0% | | | | | | | | | | | | | | |
| 4.3 | Deploy MFP | All | 0% | | | | | | | | | | | | | | |

MFP

Introduction

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Timeline

Questions?





Appendix

Progress

- Updated: Logo, SDS, Part Drawings
- MFP Sonar Mount
- Hydrodynamic Sonar Position
- Fairing Paint Schemes
- Lamination at S.C.

Next Steps

- System Check
- Pool Testing, Buoyancy, Trim
- Test Sonar
- Fairing Manufacture
- Shock Load Testing

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Next Steps

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