# GET TO KNOW US

## MEET THE TEAM BEHIND THE MISSION

SOAR'S MISSION IS TO AID AND ENCOURAGE THE SAFE PURSUIT OF AEROSPACE AND ROCKETRY THROUGH HANDS-ON PROJECTS. SOAR PROVIDES A SPACE FOR STUDENTS TO APPLY CLASSROOM KNOWLEDGE TO REAL-WORLD PROJECTS, NAVIGATE ENGINEERING CHALLENGES, AND GAIN MEANINGFUL HANDS-ON EXPERIENCE. BY BRINGING TOGETHER TALENT FROM DIVERSE DISCIPLINES, WE CAN FOSTER A DYNAMIC, COLLABORATIVE ENVIRONMENT WHERE CREATIVITY, TEAMWORK, AND DETERMINATION PROPEL US FORWARD. AT SOAR, WE BELIEVE THE SKY IS NOT THE LIMIT... IT'S JUST THE BEGINNING.

USFSOAR@GMAIL.COM | USFSOAR.COM

# WE ARE USF SOAR

The Society of Aeronautics and Rocketry (SOAR) at the University of South Florida is a student-led, non-profit organization founded in 2013 by a group of driven undergraduate engineers. Since then, we've grown into one of USF's largest and most accomplished engineering teams.

**FOLLOWERS**
+ 2,300

**MEMBERS**
+ 1,000

**REGISTERED MEMBERS**
+750

## PROJECTS

- Internation Rocketry Engineering Competition
- Torito Liquid Propulsion
- Certifications

## AWARDS

**NORTHROPP GRUMAN AWARD**
2025

**MOST INNOVATIVE PROJECT**
2025

## MEMBER'S MAJOR BREAKDOWN

| | |
|---|---|
| MECHANICAL ENGINEERING | 49.9% |
| COMPUTER SCIENCE | 13.1% |
| AEROSPACE ENGINEERING | 10.52% |
| ELECTRICAL ENGINNERING | 6.29% |
| CHEMICAL ENGINEERING | 3.7% |
| INDUSTRIAL ENGINEERING | 5.2% |
| CIVIL ENGINEERING | 5.2% |
| CYBERSECURITY | 3.36% |
| BUSINESS | 2.36% |
| POLITICAL SCIENCE | 1% |

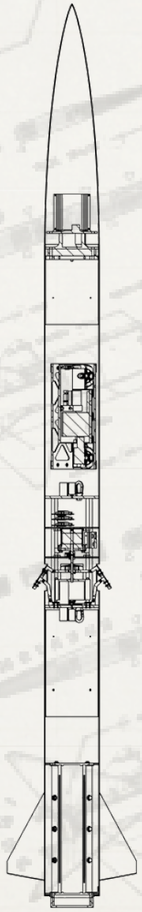
# INTERNATIONAL ROCKET ENGINEERING COMPETITION

The International Rocket Engineering Competition (IREC) is the world's largest collegiate rocketry competition, hosted annually by the Experimental Sounding Rocket Association (ESRA). Teams design, build, and launch high-powered rockets to target altitudes of 10,000 or 30,000 feet AGL. SOAR competes in the 10K COTS category, demonstrating end-to-end systems engineering from propulsion to recovery.




## 2026 IREC SCORES

| | |
|---|---|
| TECHNICAL REPORT | 178.33/200 |
| FLIGHT SCORE | 237.42/300 |
| OVERALL PLACEMENT | 39/144 |
| PAYLOAD SCORE | |
| ALTITUDE ACCURACY | 9035/10000 |



## 2027 CAMPAIGN GOALS

| | |
|---|---|
| TARGET PLACEMENT | TOP 10 |
| ALTITUDE TARGET | 10,000 FT +/- 2% |
| TECHNICAL REPORT | >90% |
| TEAM SIZE | 35 |
| PAYLOAD MISSION | LASER BEAM |

# TORITO RESEARCH TEAM

LIQUID PROPULSION DIVISION | USF SOAR

Torito is USF SOAR's dedicated liquid propulsion research team, focused on the design, development, and testing of bipropellant rocket engines. Our interdisciplinary team brings together mechanical, aerospace, chemical, and electrical engineering students to push the boundaries of collegiate rocketry through rigorous research, iterative prototyping, and data-driven design.



## RESEARCH FOCUS AREAS

- Bipropellant Engine Design & Testing
- Injector Optimization & CFD Analysis
- Propellant Feed System Architecture
- Static Fire Test Stand Development
- Data Acquisition & Instrumentation

## 2027 RESEARCH GOALS

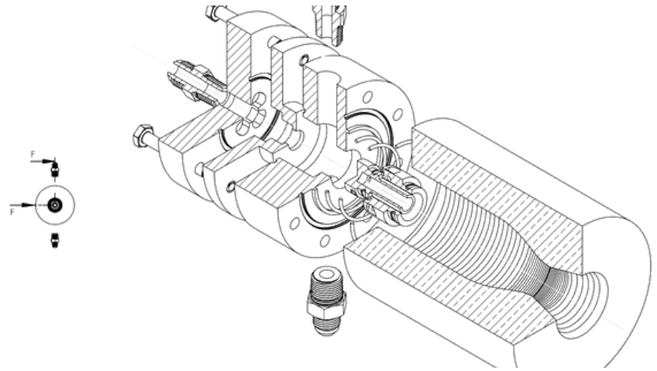
Launch vehicle
30,000 ft Apogee
Succesful recovery

## EPIMETHIUS

FLAGSHIP ENGINE PROGRAM

Epimethius is Torito's flagship bipropellant liquid rocket engine, designed for a target thrust class suitable for collegiate rocket applications. Named after the Titan of afterthought, Epimethius represents our iterative, learn-by-doing philosophy – each design revision informed by extensive test data and failure analysis.

| PROPELLANTS | TARGET THRUST | CHAMBER PRESSURE | COOLING |
|---|---|---|---|
| NOS/ Ethanol | 500 lbf | 300 psi | Heat Sink |



| 8 | 6 | 10 |
|---|---|---|
| WATERFLOW TESTS | COLD FLOW TESTS | ACTIVE MEMBERS |

# TRIPOLI CERTIFICATIONS

**Tripoli Rocketry Association provides a rigorous certification program that validates rocketry knowledge, construction quality, and safety practices, for members ascending the levels—building skills, earning retis, and preparing for more advanced and powerful flights.**

## OUR CERTIFICATION PROGRESS

### L1 LEVEL 1

**BASIC CERTIFICATION**

Foundational knowledge of rocketry and safety.

CERTIFIED MEMBERS

**20**

### L2 LEVEL 2

**ADVANCED CERTIFICATION**

Demonstrates advanced building and safety practices.

CERTIFIED MEMBERS

**4**

### L3 LEVEL 3

**SENIOR CERTIFICATION**

Expert-level rocketry and leadership capabilities.

CERTIFIED MEMBERS

**2**



## MEMBER HIGHLIGHT: DREW

**DREW IS PASSIONATE ABOUT AEROSPACE AND HAS EARNED HIS TRIPOLI LEVEL 2 CERTIFICATION THROUGH SOAR'S MENTORSHIP PROGRAM. HE IS CURRENTLY WORKING TOWARD HIS L3, WHICH REQUIRES DESIGNING AND FLYING ON AN M-CLASS OR HIGHER MOTOR WITH DUAL-DEPLOY RECOVERY**

# MEMBERSHIP PIPELINE

## FROM DAY ONE TO LIFTOFF

**SOAR is more than a student organization. We guide members from their first day through real-world experience, leadership opportunities, and career-defining internships.**



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# YOUR JOURNEY WITH SOAR

**We provide the platform so our students can build their future.**

### 1 JOIN SOAR

Become a member and connect with a driven community passionate about aerospace.

### 2 BUILD SKILLS

Gain hands-on experience through trainings, workshops, and technical projects.

### 3 GET MENTORED

Learn from upperclassmen and alumni who provide guidance, feedback, and industry insight.

### 4 LEAD PROJECTS

Take ownership, lead teams, and drive impact through real engineering challenges.

### 5 LAND INTERNSHIPS

Leveraging your experience and network to secure competitive internships and launch your career.

# MEMBER SPOTLIGHTS: INTERNSHIP SUCCESS

### ETHAN ZYLMAN



**ELECTRICAL ENGINEERING**

**NASA**

Ethan has been a member of SOAR since August 2024, during which he has held the positions of Payload EECS junior engineer for the NASA Student Launch Competition, Ground Station Control Lead for Torito Liquid Propulsion, and Chief Engineering of our solid propulsion competition team for the International Rocket Engineering Competition.

While serving in these positions, he played a key role in developing the team's deployable rover, E.V.E and assisted the team throughout various competitions.

### KYLE SHUM



**MECHANICAL ENGINEERING**

**LOCKHEED MARTIN**

Kyle has been involved with SOAR since September 2023 and began his first role in SOAR as a junior engineer within the payload mechanical and aerostructures teams for the NASA Student Launch Competition. The following year, he served as the Vehicle Mechanical Lead for the same competition in which he worked on integration of the team's mechanical subsystems within the competition rocket "Prometheus". Lastly, he served as President in the 25-26 academic year, leading the club to its first entry in the highly competitive, International Rocket Engineering Competition, and a club-wide refocus on our Liquid propulsion team, Torito to push towards the goal of a student developed engine being static fired.

### MATTHEW WEST



**COMPUTER SCIENCE & MATH**

**RAYTHEON**

Matthew has been a member of SOAR since August 2025, during which he has held the positions of Payload EECS Junior Engineer, Torito Ground Station Control EECS Junior Engineer, and most recently, Guidance, Navigation, and Controls EECS Lead.

While serving in these positions, he played a key role in developing the team's deployable rover, E.V.E., assisted the team at IREC, and contributed to the electronics and testing of the Epimethius liquid rocket engine.

### JESSIE NWOKOYE



**MECHANICAL ENGINEERING**

**JABIL**

Jessie has been a member of SOAR since August 2025, serving as a Payload Mechanical Junior Engineer (JE). During her time with the organization, she has contributed to several aerospace projects, including the Payload Mechanical team, E.V.E. deployable rover, and CubeSat. Through these projects, she has gained hands-on experience in engineering design, development, testing, and team collaboration while contributing to SOAR's preparation for various competitions.

# DEVELOPMENT AND ENGAGEMENT

BUILDING CONNECTIONS, GROWING TOGETHER.

**SOAR is built on collaboration, curiosity, and community. Through outreach, mentorship, and hands-on learning, we inspire the next generation, engage our members, and strengthen our network across campus and beyond.**

- Technical Workshops
- Professional/Company Events
- Social Gatherings
- STEM K-12 Outreach
- Tripoli Certifications

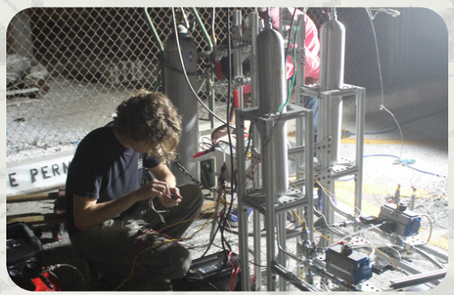















# SPONSORSHIP TIERS

## 26-27 SEASON PARTNERSHIP OPPORTUNITIES

### PLATINUM TIER

**$10K +**

**Benefits**

- Digital Thank-you Letter from Eboard
- Invitation to rocket launches and testing
- **LARGE** Logo featured on SOAR website and club shirt
- Invitation to all IREC and Torito Design Reviews (once per semester)
- Framed Team Photography
- Resume book
- Career fair spot (no cost)
- End of year thank you gift
- SOAR Merchandise
- Shoutouts throughout the year
- Solo company spotlight

### GOLD TIER

**$5K**

**Benefits**

- Digital Thank-you Letter from Eboard
- Invitation to rocket launches and testing
- **MEDIUM** Logo featured on SOAR website and club shirt
- Invitation to all IREC and Torito Design Reviews (once per semester)
- Framed Team Photography
- Resume book
- Career fair spot (no cost)
- End of year thank you gift
- SOAR Merchandise
- Mid-year shout out

### SILVER TIER

**$2K**

**Benefits**

- Digital Thank-you Letter from Eboard
- Invitation to rocket launches and testing
- **SMALL** Logo featured on SOAR website and club shirt
- Invitation to all IREC and Torito Design Reviews (once per semester)
- Framed Team Photography
- End-of-year shout-out
- End-of-year thank you letter

### BRONZE TIER

**$1K**

**Benefits**

- Digital Thank-you Letter from Eboard
- Invitation to rocket launches and testing
- **SMALL** Logo featured on SOAR website and club shirt
- Framed Team Photography
- End-of-year shout-out
- End-of-year thank you letter

## A LA CARTE

Individual add-on opportunities

| | | |
|---|---|---|
| Item | Naming the rocket | **$3000** |
| Item | Sponsor an Event | **$500** |
| Item | Career fair table | **$300** |
| Item | Name on the rocket | **$100** |

# THANK YOU FOR CONSIDERING SOAR.

# THE SKY IS NOT THE LIMIT.

# THANK YOU

## FOR CONSIDERING A PARTNERSHIP WITH SOAR.

**TOGETHER, WE CAN INSPIRE INNOVATION,
EMPOWER FUTURES, AND REACH NEW HEIGHTS.**

## CONTACT US


**VALERIA MELENDEZ**
**CHIEF OF OPERATIONS**

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USFSOAR@GMAIL.COM

USFSOAR.COM

USFSOAR

**COOPER KENNEY**
**PRESIDENT**

cooperkenney@usf.edu

## HOW TO SPONSOR US!

SOAR is a Registered Student Organization under USF Policy 6.017. With this, on account with the USF Foundation, the primary method of contributing money to specific causes ot USF, has been set up as a form of payment for USF SOAR sponsorship. Sponsorship payments to the chapter are **tax exempt** through the USF Foundation, due to the USF Foundation being a **501(c)(3) non-profit.**

**STEP ONE**
When you are set on becoming a sponsor, please fill out the **SPONSORSHIP FORM** on the next page (page 9) and email it directly to **usfsoor@gmail.com.** During the completion of the form, you will be asked for a method of payment. Please reference the information below to select a method of payment that your company is most comfortable with.

**STEP TWO**
**Payment Method A (through USF Foundations):** This form of payment is through the USF Foundation website, and is tax exempt under the USF Foundation, a 501(c)(3) non-profit.

1. When you are set on becoming a sponsor, please fill out the SPONSORSHIP FORM on the next page (page 9) and email it directly to usfsoar@gmail.com. During the completion of the form, you will be asked for a method of payment. Please reference the information below to select a method of payment that your company is most comfortable with.
2. Go to the USF Foundations Website
3. Make sure **"USF Society of Aeronautics and Rocketry(SOAR)" Fund #220111** is selected
4. On the left side, please enter a gift amount that matches the sponsorship tier that the company is interested in.
5. Click the bright green **"Add this gift."** button.
6. Scroll down and fill out the Credit Card Billing Information section. Please select the **"This is a Corporate Gift"** and **"This is a Business Address"**.
7. In the Other Information section, please note that it is a sponsorship the company is providing, and include the level of sponsorship. Then click **"Give Now"**!

**Payment Method B (Physical Check):** This is tax evempt through the USF Foundation, a 501(c)(3) nonprofit. Please make checks payable to "USF Foundation" and mail to the following address.

**USF Foundation**
**4202 E. Fowler Avenue, ALC100**
**Tampa, FL 33620, USA**
**In the Memo field of the check please write "Fund # 220111".**

**STEP THREE**
We will send a receipt and a sponsorship benefits packet that details how to maximize the benefits of sponsorship, along with subscribing the contacts provided to our monthly sponsor update newsletter. We may also contact the provided contacts regarding artwork and information for us to carry out promotions and marketing.

# SOAR SPONSORSHIP 2026-2027

| COMPANY INFORMATION | |
|---|---|
| Company Name | |
| Company Address | |
| City | |
| State | |
| Zip Code | |

| PRIMARY CONTACT | |
|---|---|
| Name | |
| Phone | |
| Email | |

| SECONDARY CONTACT | |
|---|---|
| Name | |
| Phone | |
| Email | |

| SPONSORSHIP INFORMATION | | |
|---|---|---|
| | PLATINUM | $10000 |
| | GOLD | $5000 |
| | SILVER | $2000 |
| | BRONZE | $1000 |

| METHOD OF PAYMENT | |
|---|---|
| USF FOUNDATIONS | |
| PHYSICAL CHECK | |

| A LA CARTE OPTIONS | | |
|---|---|---|
| | NAMING THE ROCKET | $3000 |
| | SPONSOR AN EVENT | $350 |
| | CAREER FAIR SPOT | $300 |
| | NAME ON THE ROCKET | $100 |

| TOTAL | |
|---|---|