



































Rocket Fair

Friday, April 7 4–6:30 p.m. Von Braun Center, East Hall

Launch Day

Saturday, April 8 8 a.m.–till Bragg Farms, Toney, AL

Rain Date

Sunday, April 9 8 a.m.–till Bragg Farms, Toney, AL

Sponsored by

NASA Orbital ATK



Rocket Fair Fair Day: Friday, April 7 | Von Braun Center, East Hall | 4 p.m.-6:30 p.m.

NASA Student Launch (SL)

Launch Day: Saturday, April 8 | Bragg Farms | Opening Ceremonies begin at 8 a.m.-till

Rain Date

Launch Day: Sunday, April 9 | Bragg Farms | Opening Ceremonies begin at 8 a.m.-till

Rocket fair and launch are free and open to the public.

What is NASA Student Launch?

The NASA Student Launch (SL) challenges middle school, high school, and college students in designing, building, and launching a reusable rocket to 1 mile above ground level (AGL) with scientific or engineering payloads. SL is an 8-month commitment requiring teams to submit a series of reports and reviews, develop a Web site, provide educational engagement in their local community and provide a timeline, a budget, and other requirements. The payload options are detailed below.

- 1. Student Launch Initiative (SLI): Middle and High School teams design a scientific or engineering payload of their choice.
- University Student Launch Initiative (USLI): University and college teams choose
 from three options amongst a predetermined list of payloads. Payloads include
 landing detection and controlled landing, roll induction and counter roll, and fragile
 material protection.
 - The landing detection and controlled landing payload required teams to design an
 onboard camera system capable of identifying and differentiating between three
 randomly placed targets. Data from the camera system is analyzed in real time by
 a custom designed, on-board software package that identifies and differentiates
 between the three targets.
 - The roll induction and counter roll payload required teams to design a system that
 is capable of controlling a launch vehicle's roll post motor burnout. After the system
 has induced two rotations, it induces a counter rolling moment to halt all rolling
 motion for the remainder of launch vehicle ascent.
 - The fragile material protection payload required teams to design a container capable of protecting an object of an unknown material and of unknown size, shape, and quantity. The object(s) must survive throughout the entirety of the flight.

Is this project a contest?

USLI: Yes. Each team is competing for various prizes including a grand prize of \$5,000 sponsored by Orbital ATK. Many of the university level awards will be announced at the Awards Banquet, but the Rookie Award and the Overall Winner will be announced after the final reports are scored.

SLI: No. Teams in this category must have competed and placed in the top 25 at the Team America Rocketry Challenge (TARC) to be eligible for NASA SL. However, peer-voted awards will be given at the Awards Banquet.

Information can be obtained from the following:

- SL: https://www.nasa.gov/education/slp
- Katie Wallace at katie.v.wallace@nasa.gov
- Ian Bryant at ian.l.bryant@nasa.gov
- Fred Kepner at fred.kepner@nasa.gov
- Zach Koch at zachary.a.koch@nasa.gov

Launch day information line: 256-426-8626

Directions to Bragg Farms

1180 Grimwood Road, Toney, Alabama 35773

From MSFC:

- 1. North on Research Park Blvd. (Hwy 255) to Pulaski Pike.
- 2. Turn North (left) onto Pulaski Pike.
- Go 3.6 miles until Pulaski Pike veers to the left.
 Instead of following Pulaski Pike, go straight onto Patterson Lane.
 There will immediately be a sharp right turn.
- 4. After 0.7 miles, turn left on Murphy Hill Road, which is the first road to the left.
- 5. Take Murphy Hill Road 1.8 miles to Grimwood Road.
- 6. Turn East (right) onto Grimwood.
- Take Grimwood 0.9 miles to Bragg Farms.
 The farm will be on the South side of Grimwood Road.

From Downtown Huntsville:

- Take Hwy 231/431 North to Grimwood Road. Grimwood road is 5 miles North of Bob Wallace Lane and 0.7 miles North of Meridianville Middle School.
- 2. Turn West (left) onto Grimwood Road.
- Go 2.5 miles to Bragg Farms.The farm will be on the South side of Grimwood Road.

What to bring:

- Chairs
- Small cooler for lunches and snacks
- A food vendor will be provided at the launch field and accepting cash only
- Sturdy shoes/boots. Depending on weather, the field can be hard and dry, or very muddy
- Insect repellent
- Appropriate weather related items: sunscreen, sunglasses, hat, jacket, raincoat, etc.
- Do NOT bring grills or generators. These will not be permitted on the launch field.

Safety Statement

Please be advised that hazards are inherent in launching and in viewing launches. By accepting the invitation to view the launch, you indicate your understanding of the potential risk.

Although NASA applies stringent range safety principles and techniques to protect the general public, workforce, and property during launch, in the event of an inadvertent circumstance, hazards including debris, blast, and toxins may occur.

It is imperative that you stay within controlled areas, stay with your group, and strictly follow all instructions provided by NASA.

NASA Student Launch is sponsored by **Orbital ATK** with the annual launch event hosted at **Bragg Farms** in Toney, Alabama. Launch services are provided by the **National Association of Rocketry**.







2016-2017 NASA Student Launch Teams (SLI)

- American Institute of Aeronautics and Astronautics Orange County Irvine, CA
- Cedar Park Home School Cedar Park, TX
- Deford Dazzlers 4-H Deford, MI
- Engineering and Technologies Academy at Roosevelt School San Antonio, TX
- Ingraham High School Seattle, WA
- Krueger Middle School San Antonio, TX
- Madison West High School Team Arabidopsis Madison, WI
- Madison West High School Team Smart Lander Madison, WI
- McKinney High School McKinney, TX
- Newport High School Bellevue, WA
- Northern Illinois Home School Association Montgomery, IL
- Northview Engineering-Sylvania Northview High School Sylvania, OH
- Plantation High School Team Telemetry Plantation, FL
- Plantation High School Team Termite Plantation, FL
- San Marcos High School San Marcos, CA
- Spring Grove Area High School Spring Grove, PA
- St. Vincent St. Mary High School Akron, OH
- Western High School Davie, FL

2016-2017 NASA Student Launch Teams (USLI)

- Alabama A&M University Normal, AL
- Auburn University Auburn, AL
- California Polytechnic University Pomona, CA
- California State University Long Beach, CA
- Citrus College Glendora, CA
- Cornell University Ithaca, NY
- Florida Institute of Technology Melbourne, FL
- Florida International University Miami, FL
- Georgia Institute of Technology Atlanta, GA
- Iowa State University Ames, IA
- Loyola Marymount University Los Angeles, CA
- North Carolina State University Raleigh, NC
- Northeastern University Boston, MA
- Northwestern University Evanston, IL
- Pennsylvania State University State College, PA
- Piedmont Virginia Community College Charlottesville, VA
- Purdue University West Lafayette, IN
- Rensselaer Polytechnic Institute Troy, NY
- San Jose State University San Jose, CA
- Tarleton State University Stephenville, TX
- University of Akron Akron, OH

- University of Alabama in Huntsville Huntsville, AL
- University of Arkansas Fayetteville, AR
- University of California, Berkeley Berkeley, CA
- University of Cincinnati Cincinnati, OH
- University of Evansville Evansville, IN
- University of Florida Gainesville, FL
- University of Illinois, Urbana Champaign Champaign, IL
- University of Louisville Louisville, KY
- University of Massachusetts Amherst, MA
- University of Mississippi University, MS
- University of North Carolina at Charlotte Charlotte, NC
- University of North Dakota Grand Forks, ND
- University of North Texas Denton, TX
- University of Notre Dame South Bend, IN
- University of South Alabama Mobile, AL
 University of South Florida Tampa, FL
- Onliversity of South Florida Tampa,
- University of Toledo Toledo, OH
- United States Naval Academy Annapolis, MD
- Vanderbilt University Nashville, TN

National Aeronautics and Space Administration George C. Marshall Space Flight Center Hunstville, AL 35812 www.nasa.gov/marshall Orbital ATK

NP-2017-02-13-MSFC G-160579