2026 STUDENT ROCKET LAUNCH PROGRAM

Request for Payload Proposals

ULA

BAE SYSTEMS

Calling K-12 Rocket Scientists!

The Student Rocket Launch is an annual event presented by United Launch Alliance (ULA) and BAE Systems. It provides a unique educational opportunity to students from kindergarten through graduate school. The event offers participants hands-on experience designing and building their own payloads (devices, objects, experiments, instruments, etc.) to fly on three high-power sport rockets, which are built by ULA interns. The 2026 launch is planned for July in Alamosa, Colorado.

Program Objectives

- Provide students hands-on design, analysis, build, test and engineering experience
- Allows students and interns to be involved in launching rockets
- Create a fun and enriching experience that inspires students to pursue careers in science, technology, engineering, art and math (STEAM)

We encourage all participants to attend the launch. Check out a video of a recent launch.

Plans for 2026 Launch

Sport Rockets Launch with Payloads

- ULA interns will build high-power sport rockets that will fly approximately 6,000–10,000 feet above ground level.
- K-12 student teams based in the United States have an opportunity to design and build payloads to launch on the sport rockets.

Payload Design Process

- K-12 student teams will provide payload design proposals for possible launch on a rocket. These payloads may serve any purpose within the guidelines included with this request for proposals (RFP).
- ULA will select payloads to be integrated and flown on a high-power sport rocket.
- All payload teams will participate in a series of design reviews and will be scored on a rubric provided to the teams in advance. The three highest scoring teams will earn donations for their school or other associated nonprofit.

Wanted

- Elementary, middle and high school student teams interested in designing and building a payload.
- Teams should be led by a teacher or mentor associated with the school or organization.
- ULA or BAE Systems employees will mentor teams as needed.

Important Dates

- Jan. 30, 2026: Teams should notify studentrocketlaunch@ulalaunch.com of their intent to participate
- March 6, 2026*: Team leaders submit a simple payload proposal to ULA
- March 13, 2026: ULA notifies teams of their status
- Mid May 2026: Critical design review with ULA executives and program team
- Mid June 2026: ULA check-in to review payload production process, and ensure design is suitable for integration with launch vehicle
- July 13, 2026** (subject to change): Fit check and open house at ULA warehouse in Centennial, Colorado (outside of Denver)
- July 18, 2026**(subject to change): Planned launch

See the proposal form for detailed instructions about how to participate.

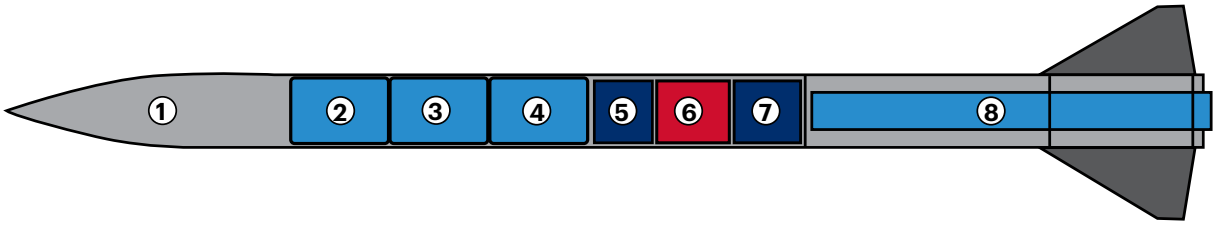
* Please notify ULA if your team is unable to provide a proposal on this date, and we will try to accommodate.
** Dates are tentative, ULA will notify teams when dates are finalized

Design Overview

No. of Payloads: 3–4 per rocket
No. of Rockets: 3–5
Height: 10–12 ft

Expected Flight Time: 160s
Expected Altitude: 6,000–10,000 ft above ground level

Time to Apogee: ~20–30s
Static Margin: ~2



1 Nosecone
2 Payload 1
3 Payload 2
4 Payload 3
5 Piston
6 Airframe Parachute Module
7 Booster Parachute Module
8 Rocket Motor

Figure 1

2026 K-12 Payload Accommodation Plan

The 2026 intern-built rockets will carry payloads inside the three nose cones and rocket bodies. Teams submitting for this RFP will have their payloads integrated into the rocket bodies, noted as payloads 1-5 in Figure 1.

Payload Tube Specifications

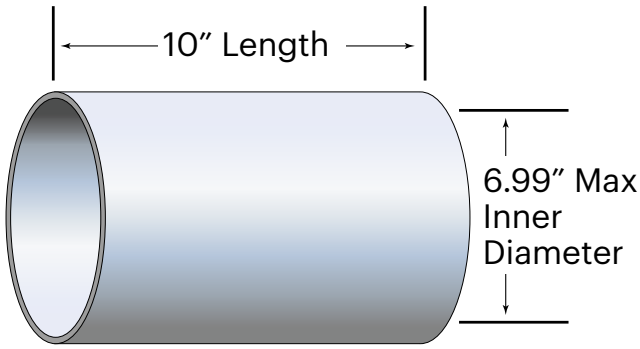


Figure 2

Payload Accomodation

Payloads must fit inside a tube that is 6.99 inches in diameter by 10 inches long. (Figure 2). ULA will provide phenolic-reinforced cardboard tubes; they are open-ended cylinders. All payloads will be ejected out of the rocket. ULA will provide the tubes in spring 2026. Payloads must provide their own parachutes, which must fit inside the payload tube with the payload (see supplement for useful details relating to parachutes).

Teams must include estimated dimensions (length, width and height) for their payload in inches.

Teams can use the payload tube in several ways. For instance:

- The tube can be used as the outer structure of the payload, i.e., items can be attached to the inside of payload tube.
- The tube can be split into two 180-degree half shells that surround and protect the payload during jettison and then fall away after payload deployment.
- ULA will provide trackers that payload teams must integrate into their system.

Rocket Technical Specs

Height: 10–12 ft (3–3.65 m)
Diameter: 7.5 in (19 cm) diameter
Dry Mass: 65 lbs (29.5 kg)
Propulsion: Aerotech M2500
Initial Thrust: 579.3 lbf (2,577 N)
Average Thrust: 562 lbf (2,500 N)
Total Impulse: 9,671 N-s
Altitude Target: 6,000 – 10,000 ft (1,828.8 – 3,048 m)
Liftoff Forward Axial Accel.: 7 Gs

Payload Requirements

To be filled out by team leader, not required for submitting your application.

Requirements	Compliance
Payloads shall not utilize any active aerial control systems. If payloads utilize passive control systems, they shall descend in a predictable flight path	☐
Payloads shall not include live animals, explosives, flammable liquids, biohazards or radioactive materials	☐
Payloads shall be able to deploy from rockets	☐
Payloads shall be sturdy enough to withstand 10Gs. Suggested test: drop your payload from a height of 10 inches onto a 0.5 inch thick carpeted floor in several positions	☐
Payload shall fit in appropriate tube	☐
Payload shall be able to be in the rocket for 120-180 minutes before launch without access. Suggested test: test battery life, power life, and temperature up to 130 degrees	☐
If payload plans to transmit RF, transmissions shall be coordinated with ULA	☐
Payload shall include a descent mechanism to descend faster than 10 miles per hour and slower than 20 miles per hour	☐
Any liquid payloads must be pre-coordinated with ULA. If payload includes liquid, the payload cavity shall remain liquid proof, and liquids must remain in the payload cavity	☐
The mass of the payload must be below 6 lbs. Payloads up to 10lbs may be considered on request	☐
Teams shall complete a critical design review with ULA prior to the launch, currently planned for July 2026. Students shall present at the design review and provide a self-assessment	☐
Payloads shall be able to be in any position within the airframe, as they are randomly assigned	☐
Payloads shall not include sharp edges	☐
Teams shall be made up of K-12 students	☐

Additional Considerations

- Collaborative team projects are prioritized over individuals.
- Mentorship is encouraged; however, the majority of the design and construction of the payload must be conducted by students.
- ULA reserves the right to alter the criteria or disqualify any team at any time for not meeting these requirements or failing to meet the educational spirit of this competition.

Program Objective and Payload Competition

The goal of the Student Launch Program is to encourage students to design, build and operate a payload that is deployed from one of the intern-built rockets.

Judging will be based on a rubric that considers the design phase, testing phase and the payload performance. Winners will be selected based on a weighted total score with detailed factors and weighting to be announced. The rubric will be provided to all teams so everyone will understand the grading scheme. The top three scoring teams will earn a cash donation for their school or other associated nonprofit.

Prizes

Students groups must provide proof of nonprofit status to receive donations. Groups who are unable to provide non-profit status will win a ULA-branded prize pack.

Questions

We are here to help and encourage questions! Send them to StudentRocketLaunch@ulalaunch.com. We will do our best to communicate with all teams the responses to any questions or concerns associated with the launch or competition that are relevant to all.

2026 Payload Proposal Form

To build a payload and participate in the 2026 Student Rocket Launch, please complete the form below.

Instructions:

1. Notify ULA (contact info below) of your intent to participate as soon as possible, so that we can gauge interest in the program.
2. Submit this proposal form to StudentRocketLaunch@ulalaunch.com by March 6, 2026.
3. Proposal team leaders will be notified by March 13, 2026, if ULA has selected their payloads.
4. Chances of being awarded a payload spot on the rocket depend on the number of proposals submitted. Payload slots will be awarded based on creativity and on a first-come, first-served basis.
5. There is no cost to the school to fly on the rocket, but teams are responsible for payload and travel costs.
6. Teams may submit more than one proposal; however, no team will be awarded more than one payload spot on the rocket unless there are more spots available than proposals received.
7. This form may be expanded to multiple pages, multiple pages with illustrations, if desired.
8. ULA and BAE Systems engineers can be available to consult with payload teams during the development of the payloads.
9. ULA will be contacting teams during the summer, please provide contact information for your team lead that will be available in the summer.
10. Submit questions, notification of intent to participate and proposals to StudentRocketLaunch@ulalaunch.com

Payload Proposal Form

Payload or Payload Team Name:

Team Leader Name:

Team Leader Phone Number:

Team Leader Contact Address:

Summer Contact Phone:

Summer Contact Email:

Payload Concept Description:

Team Description:

Are any members of your team planning to attend the launch in person?

◯ Yes ◯ No How many people plan to attend?

Test Program:

Requests (optional):

Describe Your Project/Team Here:

Do you plan for your payload to include liquid??

◯ Yes ◯ No

Do you plan to include RF signals?

◯ Yes ◯ No

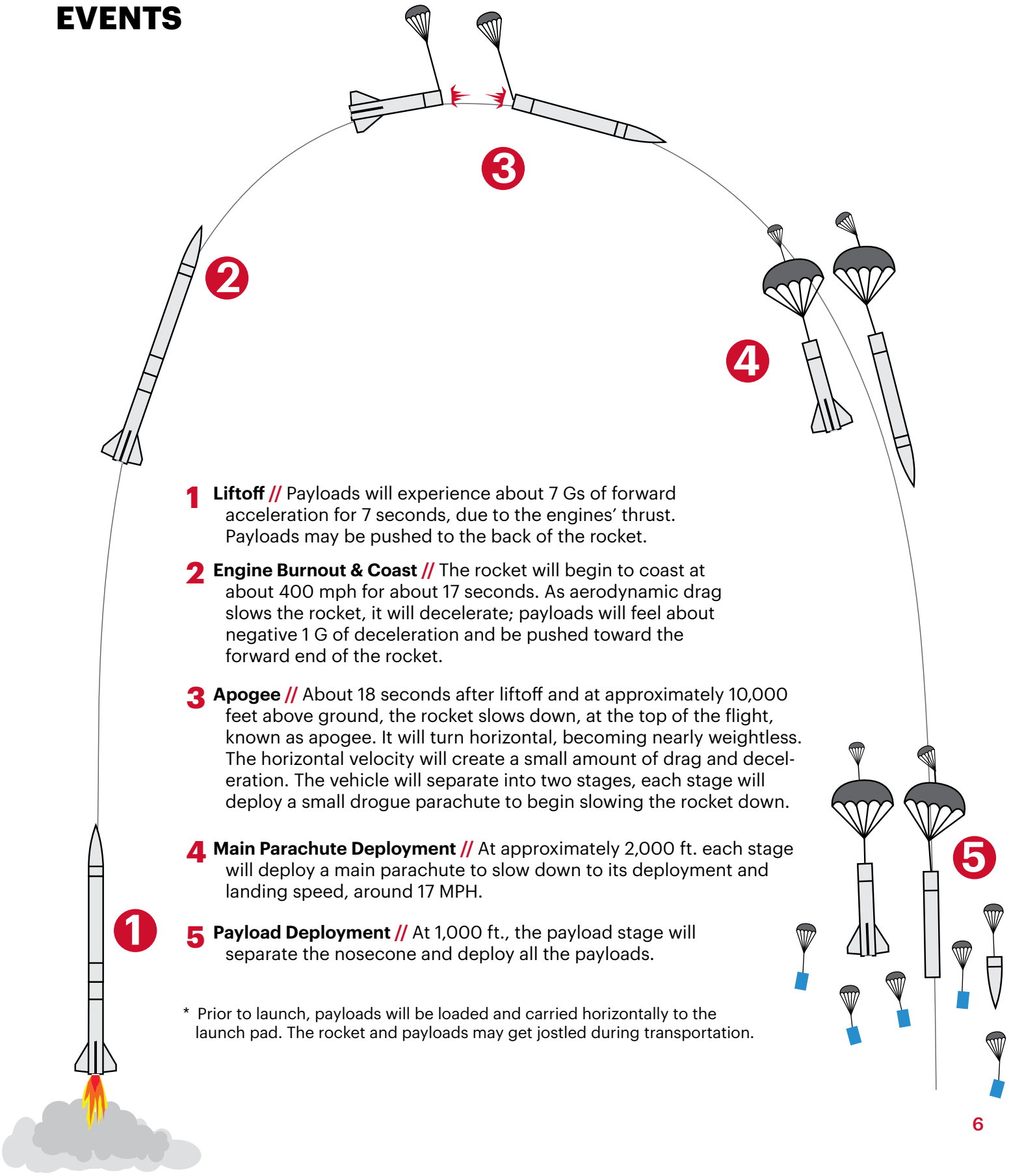
Do you plan to test your payload for battery life, power, temperature, and acceleration as applicable?

◯ Yes ◯ No

Additional Information
ULA Intern Rocket Home Page: https://www.ulalaunch.com/explore/intern-rockets

Questions, Comments and Proposal Form Submission
United Launch Alliance: StudentRocketLaunch@ulalaunch.com

LAUNCH EVENTS



1 **Liftoff //** Payloads will experience about 7 Gs of forward acceleration for 7 seconds, due to the engines' thrust. Payloads may be pushed to the back of the rocket.

2 **Engine Burnout & Coast //** The rocket will begin to coast at about 400 mph for about 17 seconds. As aerodynamic drag slows the rocket, it will decelerate; payloads will feel about negative 1 G of deceleration and be pushed toward the forward end of the rocket.

3 **Apogee //** About 18 seconds after liftoff and at approximately 10,000 feet above ground, the rocket slows down, at the top of the flight, known as apogee. It will turn horizontal, becoming nearly weightless. The horizontal velocity will create a small amount of drag and deceleration. The vehicle will separate into two stages, each stage will deploy a small drogue parachute to begin slowing the rocket down.

4 **Main Parachute Deployment //** At approximately 2,000 ft. each stage will deploy a main parachute to slow down to its deployment and landing speed, around 17 MPH.

5 **Payload Deployment //** At 1,000 ft., the payload stage will separate the nosecone and deploy all the payloads.

* Prior to launch, payloads will be loaded and carried horizontally to the launch pad. The rocket and payloads may get jostled during transportation.