

Final Design Showcase Suggestions for 2026

Congratulations for being invited to the Final Design Showcase. By being a finalist, you are a winner. This means that we are providing you with a stage to show your idea to real NASA engineers and astronauts. It does not mean that your project will fly to space but it is being viewed by people who may like your ideas and may contact you for more of your ideas and participation. Part of what HUNCH is highlighting with your projects is the diversity of ideas and methods of attacking the problems. This also gives you a reference on your resume for a national competition. Your status will remain on the HUNCH design and prototype page for as long as the website exists—my thought is forever.

Please make updates to your prototype to reflect comments and your team's expanded knowledge from the CDR and plan on showing your best ideas. This may include:

- Cleaning up wiring—not a jumble
- Removing bread boards for simpler wiring
- Round sharp edges
- Improved 3D prints
- Paint some areas for better looks
- Make it look good.
- Use a sewing machine where possible instead of hand stitching
- Choose the colors or cloth that make the most sense
- Be ready to talk about testing
- Think of the details that will make your project stand out
- Update your presentation board and brochure with the latest photos and information
- **Go over the requirements list on the last page of the project presentation**

I do not expect you to use flight materials (too expensive) but you should expect that engineers and astronauts will ask you about the materials you would like use on the flight article and your thoughts on any changes that would be required before flight.

The Final Design Showcase is on Tuesday April 28th, 2026 at Johnson Space Center in Houston Texas from 8:30am to about 2:00pm. You will be entering through Space Center Houston—the adjoining museum to JSC. There will be more information coming soon. Choose comfortable clothes. Plan to dress business casual—collared shirt, nice pants or skirt, comfortable shoes—don't plan on sitting much. You don't have to dress like a team but it makes it easy to see who is together. April in Houston can be 85F and raining—hot and sweaty. The building will be air conditioned but there will be a lot of people--warm. Bring snacks to eat outside (the Smithsonian doesn't like food around its rocket) and plan on a late lunch.

I'm looking forward to seeing all of you and your projects!!

Lunar Jumping Robot

Make a video of your robot jumping twice and taking pictures. Show this at your table. I would rather not have robots jumping several times and breaking in front of lots of people. I will set up a location outside of the building so everyone can demonstrate their robot at a specific time—depending on the weather. Clean up your design and lighten the weight where possible without losing strength. Tighten up your wiring both for looks and also for preventing snags.

Mars Trash Ejector

The most important part about a Trash Ejector is not losing all the air and killing everyone on the space craft. Be ready to talk about how you would seal the two hatches and the safety of not having both open at the same time. Be ready to launch your soup can several times for demonstrations. Make sure the process for the launch is simple and looks safe to anyone do. What if there is a jam or something was put in by accident (wedding ring, family photo,...) can the process be stopped and fix the problem or retrieve the item?

VR Simulated Gravity

Fill out the inside of your rotating module with equipment as best as you can—work tables, beds, bathroom, work out equipment, laptops, food prep area. Demonstrate what happens with a ball placed on a flat table. Show how the Coriolis affects a thrown ball depending on the direction of travel. Be ready to talk about how you were able to make the gravity be radial for the vehicle instead of just down. Be ready to talk about how this rotating space craft with speed up or slow down with shifting of mass (supplies, water, people). There will be power close to your table and outlet boxes. I will place you on the shadier side of the building so you won't have glare on your screens. Its ok if you don't have head sets.

NanoLab

Show the materials you want to test in the drop tower. Show your NanoLab as close to ready to be placed in the drop tower as possible but still able to see inside. Having extra examples of the hardware on the table helps people see what you are pointing at inside your NanoLab. Be prepared to talk about any testing you have done. Dropping 32 feet into a bean bag will give you 1 second of zero-g—not a bad start.

NASA's Nancy Hall from Glenn Research Center will be looking for the best NanoLab for the potential of dropping it at their facility during the summer.

Supply Pod Airlock

Be ready to show how your scaled Supply Pod Airlock will be assembled on the moon. How it attaches to the 'porch' and how a Supply Pod (baseball) will be brought into the Airlock (garage). Talk about your hatch and how you will be preventing dust from getting onto the seal. Having a rover that brings the Supply Pod to the Airlock for a more complete visual

representation is helpful but not required. Be ready to talk about the layering of the materials you would like to use. Show any samples of the cloth or other materials that you can find.

Collapsible Hygiene Stall

It is helpful to have a portion of the scaled and curved volume of the module to show how your Collapsible Hygiene Stall will fit into the available space. Be ready to demonstrate how your hygiene stall will be installed into the rack area and how long it takes to do so. Bring your scaled astronaut (Barbie, Ken, Spiderman,...) and display the amount of space the person would have inside. It would be helpful if you can have samples of the materials you would like to use. Show or talk about the colors of the stall and how it will effect the lighting inside the stall and the shadowing outside.

Lunar Sample Box

Bring big gloves and rocks (not baseballs) to demonstrate the use and process of your Lunar Sample Box. Have a video of your box being tested in the water—don't bring a tank of water. Be ready to talk about what materials you plan to use if building the box that would go to the moon. Be ready to explain how your prototype was built? How will the flight box be built? How do you suggest your box will be stored and/or stacked in the vehicle leaving the moon?

Chess from Trash

Have more people play on your chess board and get feedback about how people like it. Is there a good storage system so pieces are not lost? Each team has made a creative Chess board however, the most important part about this project is the recycling of trash. Do you have other ideas of products that could be made out of recycled materials that could be helpful for the crews that are on the moon? Not everything has to be 3D printed.