Note to Semi-Finalists

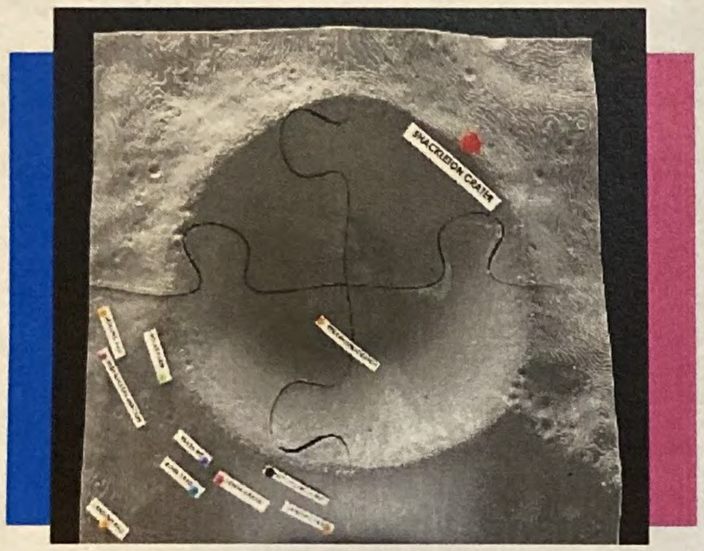
Thank you very much for participating in the HUNCH Design and Prototyping. This was by far the most difficult year for deciding finalists. Part of the difficulty was the number of teams participating but the most important part was the number of high quality of prototypes for each of the 10 projects.

Each Mentor helped choose potential finalists for their area and were then compared with the same type of projects across the country. Teams that were selected to be finalists had very tough competition and it was very difficult to down select. Although everyone wants to be a finalist it isn't possible and decisions have to be made. Some of the decisions include the requirements but also trying to show diversity of how the problem could be solved. There was no shortage of good and diverse ideas.

Being a Semi-Finalist is a great honor because each of you put together a project and data that made the teams think, learn and be excited about space. Your great ideas and hard work is what makes NASA HUNCH a challenge and a great experience for engineering. We hope you enjoyed the projects as much as we all enjoyed seeing your prototypes.

If you are a senior and moving on to college, industry, or trade schools, make sure you include your project with NASA HUNCH on your resume. You will find that your interview will center on "what did you do for NASA?" The more you tell them, the more they will want to hear. You will be receiving a letter of recommendation from NASA HUNCH describing Design and Prototype and the project you worked on. We hope that your work will translate to opening doors for your future. Thank you for being in the NASA HUNCH Design and Prototype Program.

VR LUNAR CITY



Cypress Springs HighSchool

Teacher - Steven marcus

mentor - Glenn Johnson

Ashley Reinkoester, Gissel Martinez, and Ella Jones

WHAT IS OUR PROJECT?

Our project is called the NASA lunar city planning. The VR lunar city is a project to design the layout of a city on the moon for ice excavation while having functional infrastructures and resources to combat low gravity.

NASA HUNCH

OUR TEAM

We are putting our minds together to design what a functional city on the moon would look like. Each one of us holds individual skill sets to make our ideas come to life.

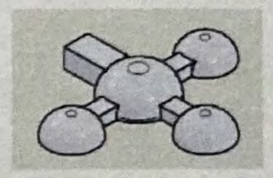
IMPORTANT FEATURES OF OUR CITY

Some of the most important features of our city are the landing pads, solar farm, nuclear reactor, excavation location, habitat, bone yards and trash pit. They were placed considering distance, proximity between each other, radiation, dust and debris.

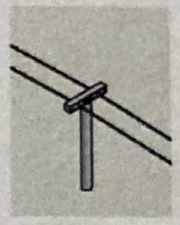
CAD FINALE DESIGNS

Trash Pit

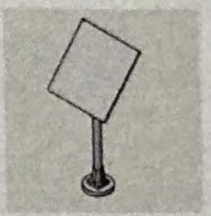
Bone Yard



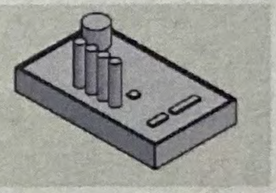
Habbitat



Ski Lift



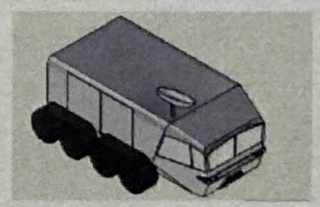
Solar Pannel



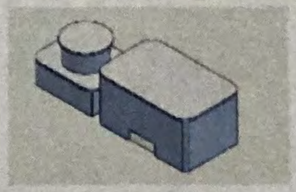
Ice and Dirt Processing Plant

Electric Scooter

Landing Pad



Rover



Mini Nuclear Reactor

QR CODES

Presentation -

VR walkthrough -

Video presentation -

VR Lunar City

Ethan Leuteneker~Max McCurdy~Malakai Harris-Carter

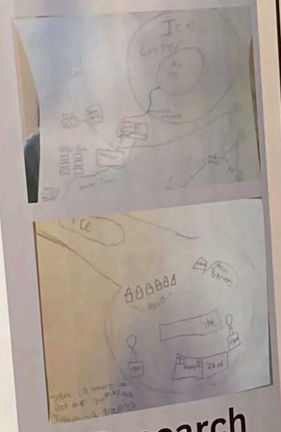
Luner City Onshape Model

Website

Our Problem

The problem we are experiencing is what a lunar city should look like and we are building this in VR. Malakai, Max, and I are working to design this throughout the year. we are going to work to build a realistic design that could work in a Lunar environment.

Initial Designs



Research

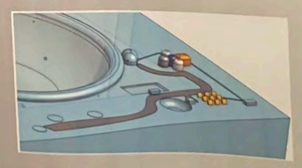
What We Added

- more solar panels were necessary
- added markers to make sure astronauts and rovers stay in lunar city

What We Changed

- took out the nuclear power plant
- took out road as rovers can get over any small rocks or bumps
- moved our power lines to the groud and protected from getting run over

Prototype 1



Design Visuals