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Operation:  
Make it

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Difficulty level:



# MAKE IT SERIES

# LUNAR HABITAT

# MISSION PLAN

Agent: \_\_\_\_\_





The Big  
Question:

How would  
astronauts live on  
the moon?

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Mission:  
Objective

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Build the technology we  
need in space!

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Mission:  
Resources

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Pg.1-4: Make it: Lunar  
Habitat  
Pg.5: Agency Logo Cutout

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Images

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**Above:** Base on Mars, Martian colony in desert landscape, on the red planet, 3d illustration.  
**Below:** Trailblazer logo. Artist impression of Australia's vision for space exploration

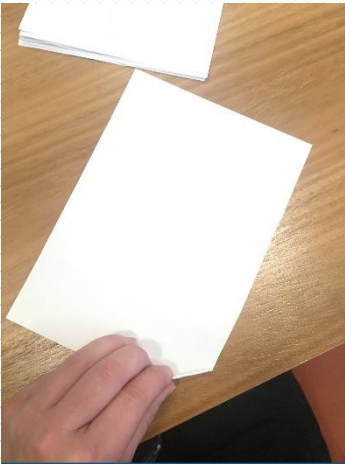


## Materials

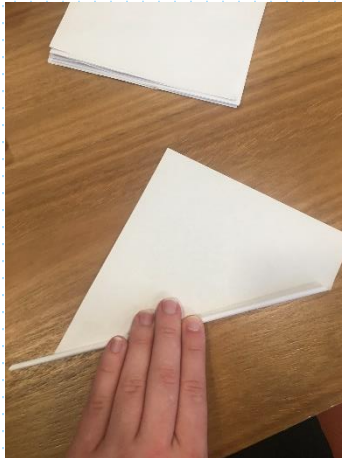
- 35 Paper tubes (alternatives can also be used such as: straws, popsicle sticks, skewers etc...)
- Newspaper or tissue paper
- Staples/Tape/Blu-tack/Hot glue (some form of adhesive)
- Scissors
- Wood glue or glue stick
- Paintbrush for Wood Glue

## Construction

1. Either collect or create construction beams by rolling paper into thin tubes.



Get a piece of paper.



Roll up the paper.



Make a tube/straw.



Repeat 34 times.

## Make It: Lunar Habitat

### Activity:

Congratulations! You have been selected to build the prototype moon habitat for the Artemis program.

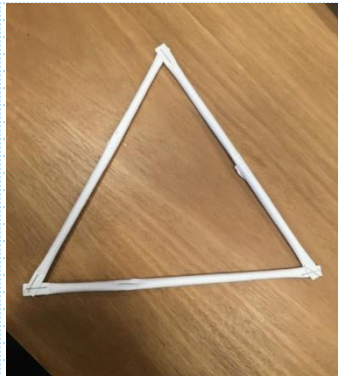
This is where our astronauts will live as they conduct important research on our moon.

Here are your mission instructions to help you complete the project.

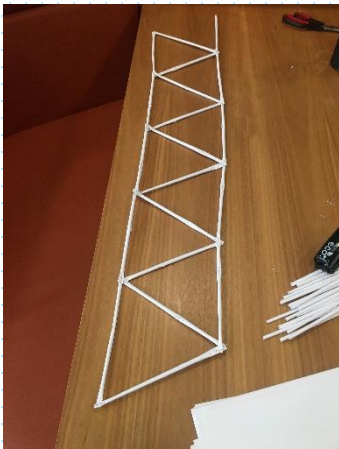


## Construction

1. Collect up your construction beams (paper tubes) and form into triangles. Use adhesive at the corners to create a triangle shape out of three of your beams. Repeat until there are five triangles.



Tape three straws to make a triangle.



Join five triangles together in a row.

2. Lay the five triangles flat so they all point in the same direction. Stick the five triangles together at their bottom corners and add beams to connect at the top. This will leave you with a row of triangles connected at the top and bottom with the top beam sticking out.

3. Tape five beams together in a star shape by joining the ends together at the centre point of the star.

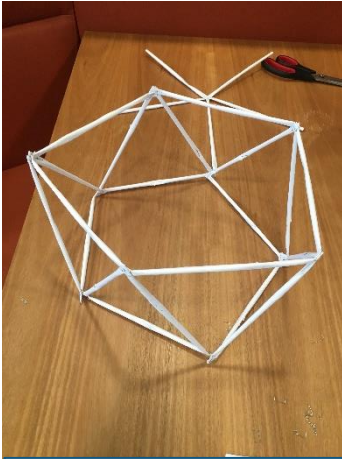


Tape five beams to create a star.

Make It:  
Lunar Habitat

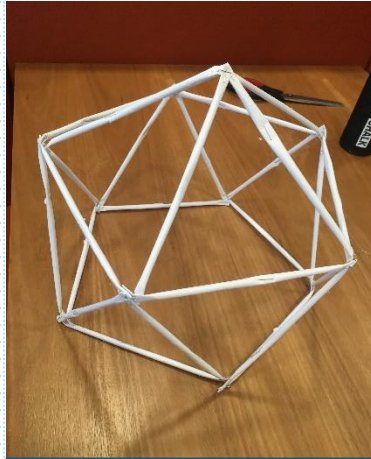
## Construction

4. Bend around the row of triangles and tape together so that you get a five-sided (pentagonal) structure.



Bend the row of triangles and join.

5. Tape the free ends of the star to the corner points of the pentagon. The structure should now stand by itself.

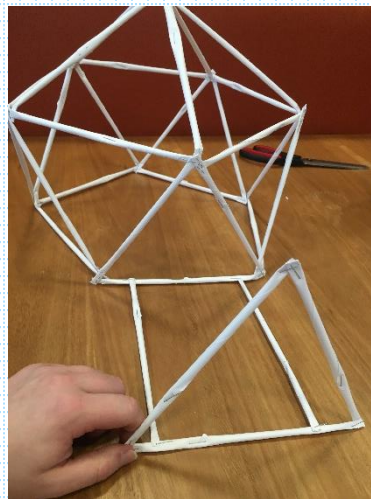


Attach the star to the pentagon base.

6. Take your 12 remaining paper tubes to construct the airlock. Create one more triangle using tape and three of the beams.

7. Use two beams to attach the base of this triangle to the base of the habitat.

8. Use three beams to make a square around the triangle.



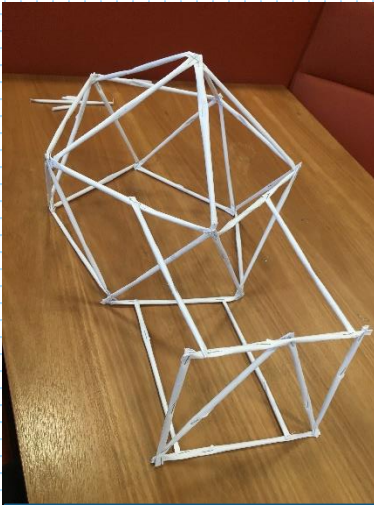
Create and attach the entrance way.

## Make It: Lunar Habitat

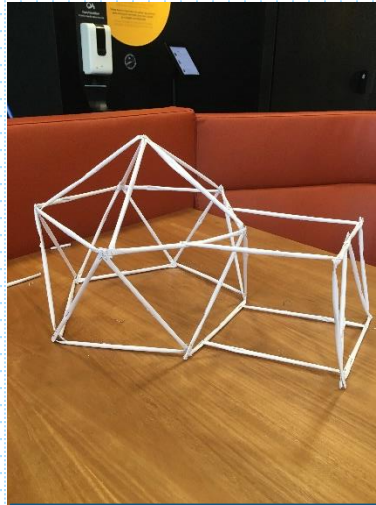
## Construction

## Make It: Lunar Habitat

- Use two more beams to join the airlock to the main base. You can do this by attaching each beam to the corner of the square and then to the edge of the main base.



Attach the top supporting beams



Enjoy!

- Paint glue over the beams of you structure and then gently press sheets of tissue paper or newspaper onto the outside.
- Print out the Australian Space Agency Logo and stick it on the side!



- Print the cut-out below and then follow the Lunar Habitat instructions on page 4.