2021-2022 City Model Slideshow

School/Organization: **Queen of Angels Regional Catholic School**

Educator Name: **Julie Gennaro**

Future City Team Name: **Thanh-Pho-Hy-Vong**

Delete all PURPLE text before submitting the slideshow for judging. Keep text that is black.

Deliverable Details/Requirements

- This slideshow is your chance to present your model. Whether your team created a single model or multiple segments, here is where you show off the future city you designed to the judges.

- Choose photos of the various segment(s) that best show the requested content. Where noted, you can put one (1) or two (2) photographs of your team's work. The photos can take up as much space on the slide as you like, as long as they do not cover the slide title (upper left) or the text block descriptions on the right of the slide. More than two photographs are not permitted per slide. Collage images with more than two photos are not permitted.

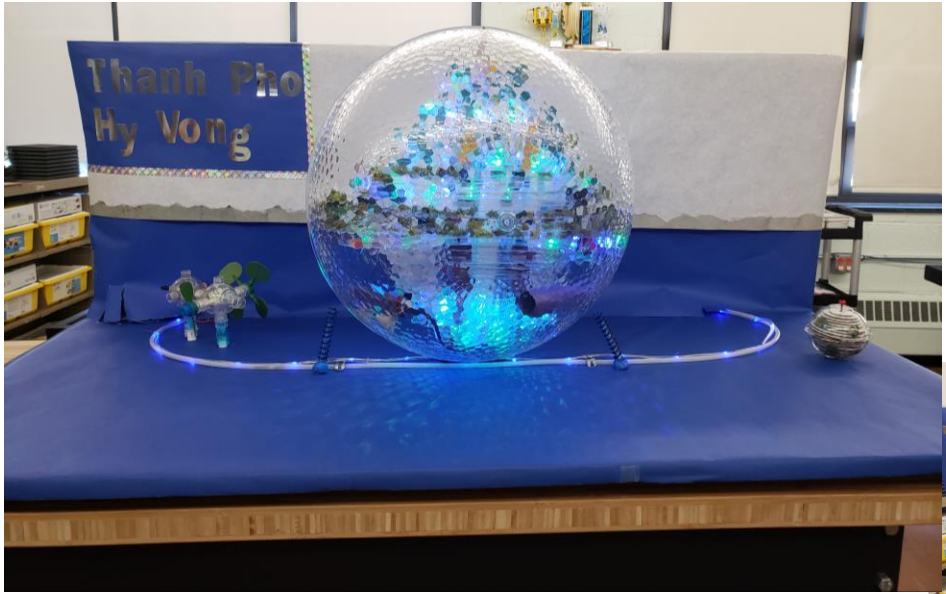
- Do not change the size of text boxes in this template. All written text must fit within the boxes and *cannot* be smaller than size 14 in Calibri (or equivalent) font.

- When finished, save the slideshow as a PDF and upload to the Educator Dashboard at FutureCity.org.

- Review the 2021-2022 Program Handbook for a full list of rules and requirements.

Section I

CITY DESIGN


Thanh Pho
Hy Vong

Thanh Pho
Hy Vong

Residential Zone

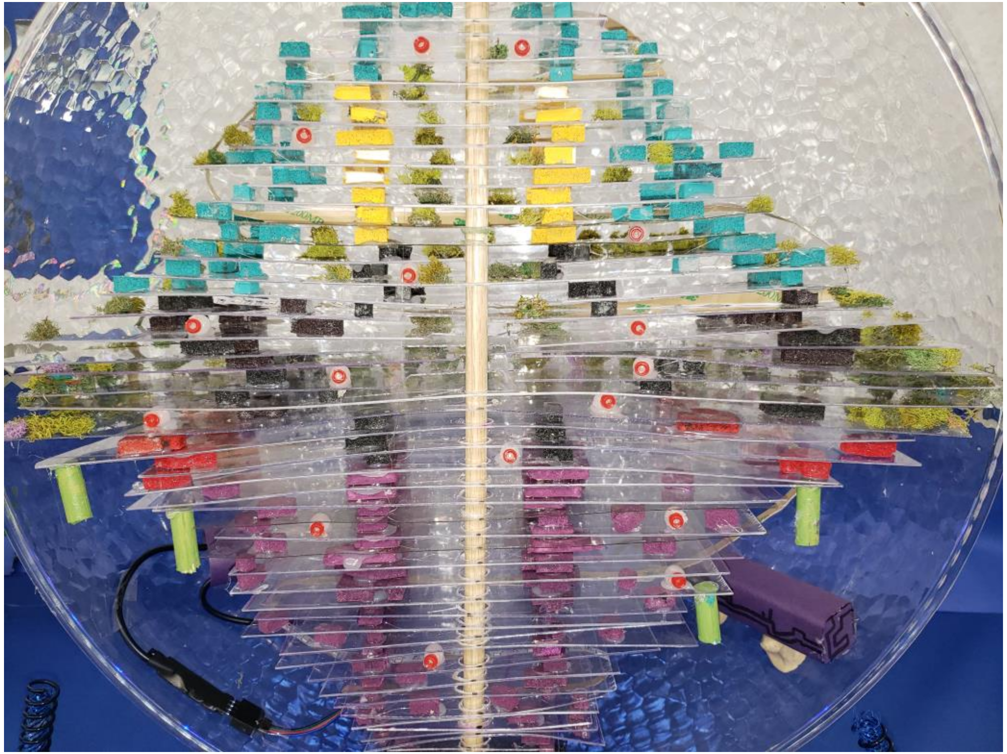
What is important for the judges to know about your residential zone?

City zones are color coded, making it easy to navigate our city. The residential zone is teal. The residential zone is located on the upper levels of the biosphere, maximizing natural light.

50,000 residents can live in both single homes and apartments, with courtyards and green spaces. All of our biosphere structures connect to the Modular Building Grid (MBG), providing connections to utilities.

MBG Model Scale: 1 in. = 2 ft. (0.61 meters)

Commercial Zone



What is important for the judges to know about your commercial zone?:

The Commercial Zone is colored black and is located in the middle layers of our biosphere, conveniently located to the residential zone.

Residents travel to the commercial zone via the spiral walkways and roadways or take their hyperloop pod.

Our commercial zone has all of the up-to-date store chains, such as Aqua-Bikes, Pega Shoes, Aquapostale and Bubble Barns.

Industrial Zone

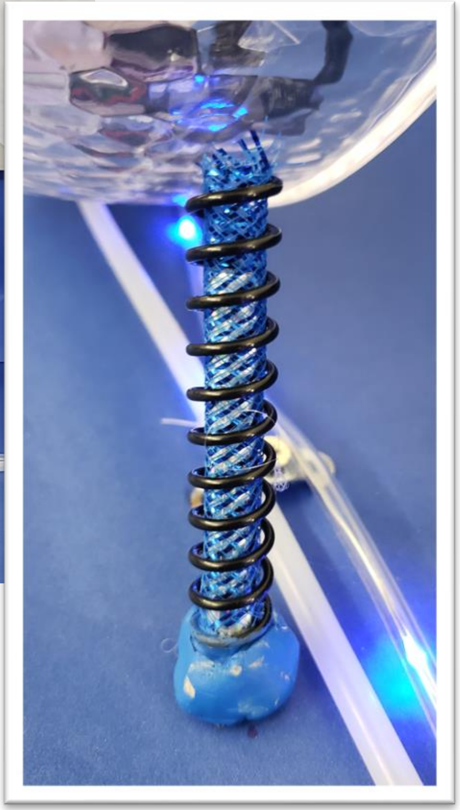
What is important for the judges to know about your industrial zone?:

Our industrial zone is purple and located in the lower layers of our biosphere.

Our major industry is the mining of trace minerals in the ocean water. Hyrdo-mineral extractors remove tin, copper, nickel, and other minerals from the ocean water.

We also manufacture building materials made from recycled plastic.

Infrastructure Example 1



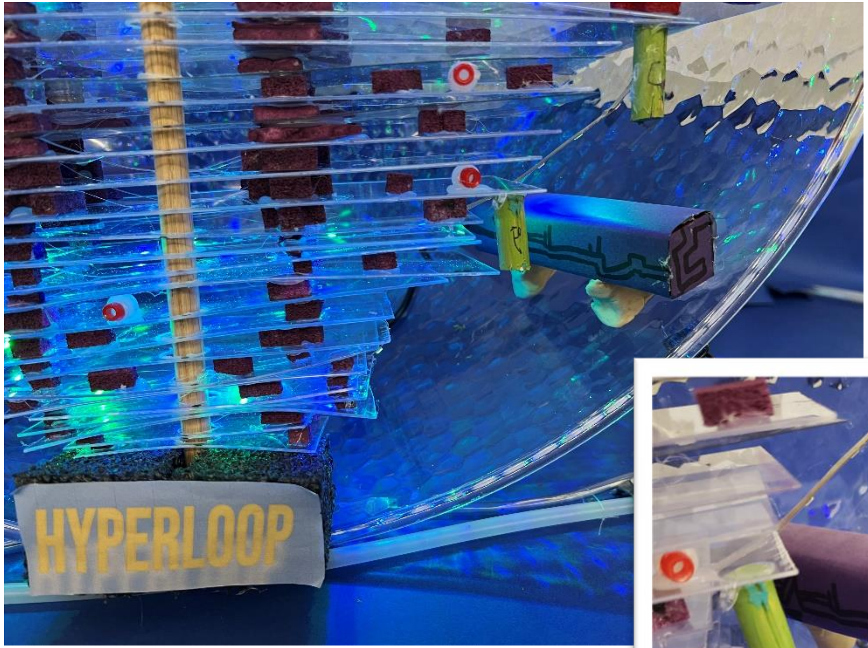
What type(s) of infrastructure are shown here (water, power, utilities, etc.)?:

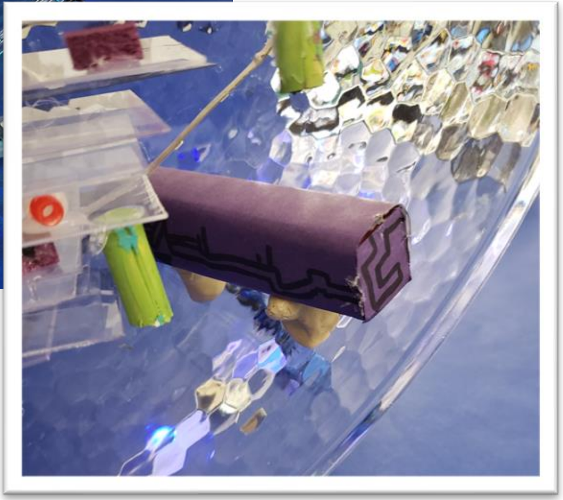
Power

How are these related to the realities/challenges of a Waste-Free City?:

The South China Sea provides natural forms of renewable energy. Mechanical Converters, integrated into our biosphere tethers, generate power using the stress generated from the ocean currents.

Infrastructure Example 2





What type(s) of infrastructure are shown here (water, power, utilities, etc.)?:

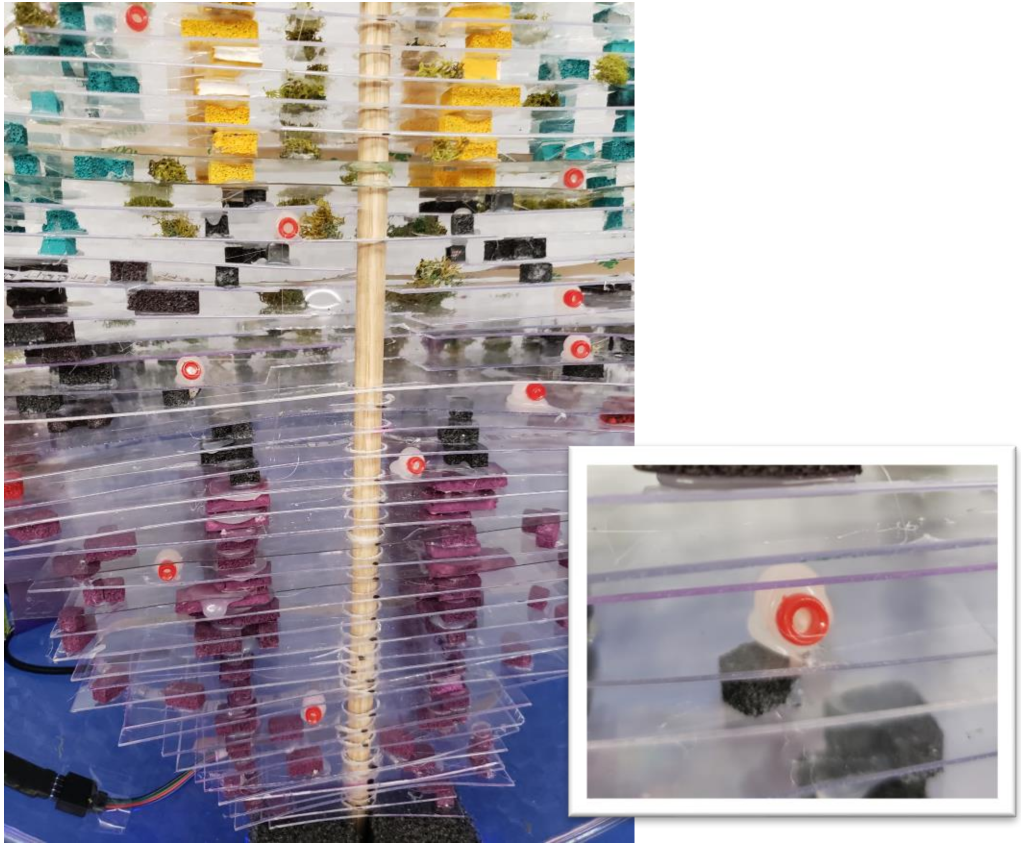
Waste Collection/Recycling

How are these related to the realities/challenges of a Waste-Free City?:

Our city has developed advanced recycling methods to remove impurities, allowing us to recycle 100% of our waste.

Human waste is composted with genetically enhanced microbes to accelerate the decomposing process. The resulting fertilizer is distributed to plants in our agricultural center.

City Services Example 1



What type(s) of city services are shown here (health, education, etc.)?:

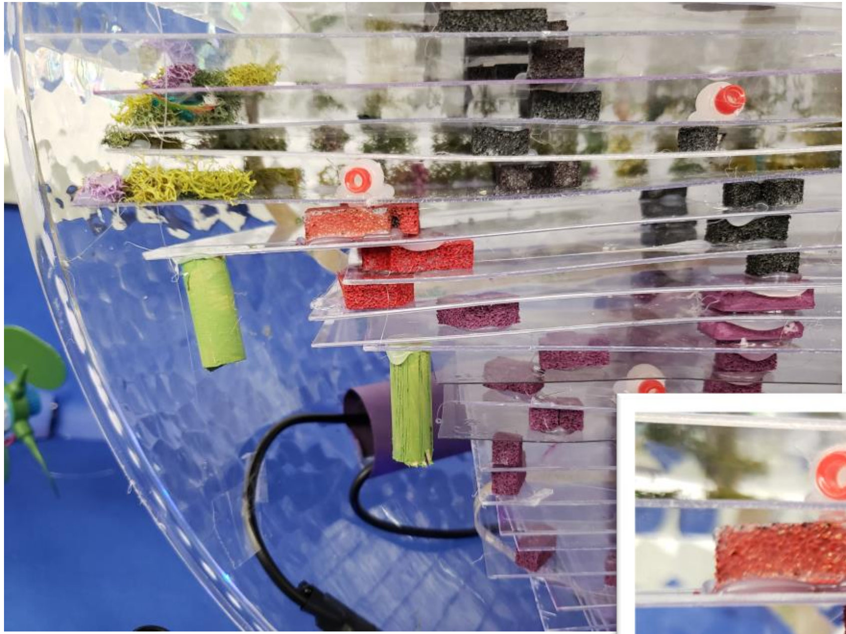
Healthcare Centers

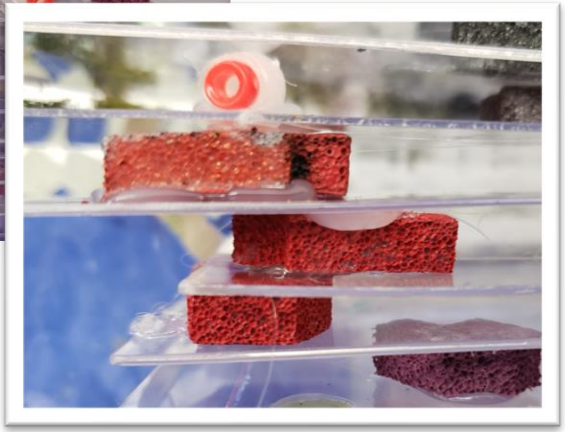
What do you want the judges to know about your city's operations?:

Healthcare Centers are easily identified by their white color and red 'circle of life' antennas.

With a city-wide network of healthcare centers, residents can easily take advantage of special water therapies and advanced regenerative tissue treatments to maintain a healthy and active lifestyle.

City Services Example 2





What type(s) of city services are shown here (health, education, etc.)?:

Education

What do you want the judges to know about your city's operations?:

Education facilities are red in our city.

Students attending the University of Candidus enjoy an ocean view from every window, while receiving a world class education in marine biology, hydrodynamics or bio-crypto technology.

Transportation Example 1

What type(s) of transportation systems are shown here?:

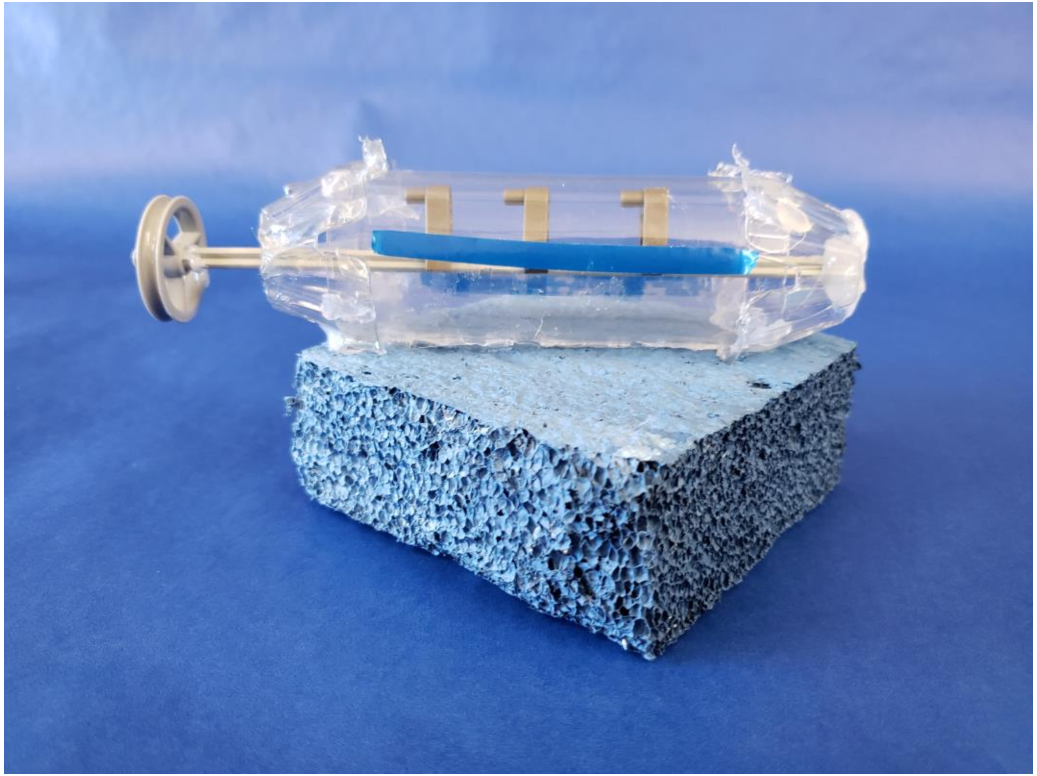
Public Transportation - Train

What do you want the judges to know about your transportation system(s)?:

Hyperloop pods interact with our hyperloop bullet train to transfer people directly from their home to distant destinations.

The hyperloop system makes every level of our biosphere easily accessible.

Transportation Example 2



What type(s) of transportation systems are shown here?:

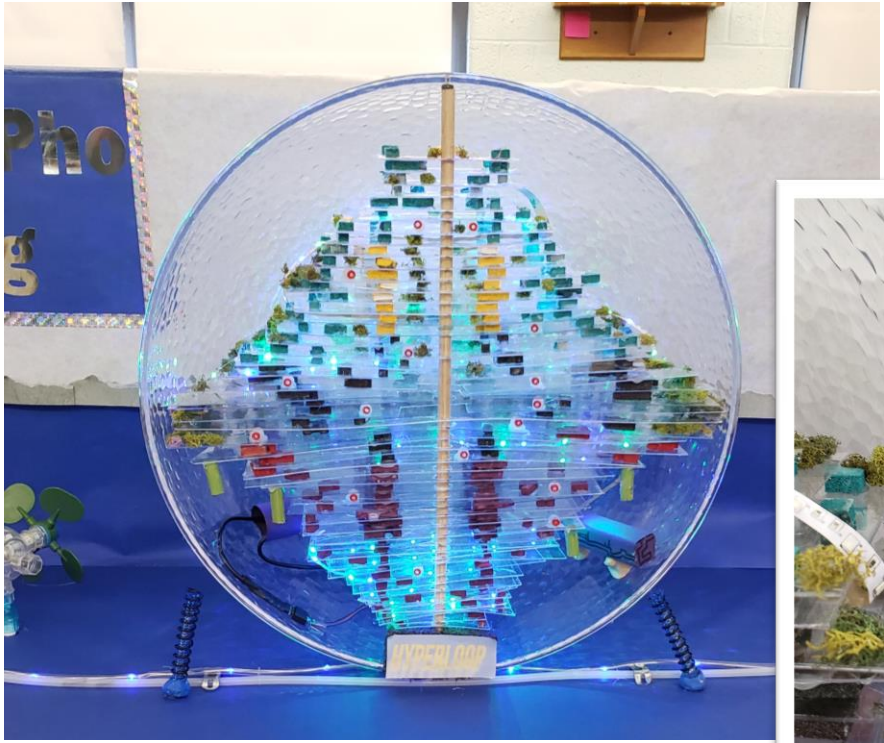
Personal Transportation

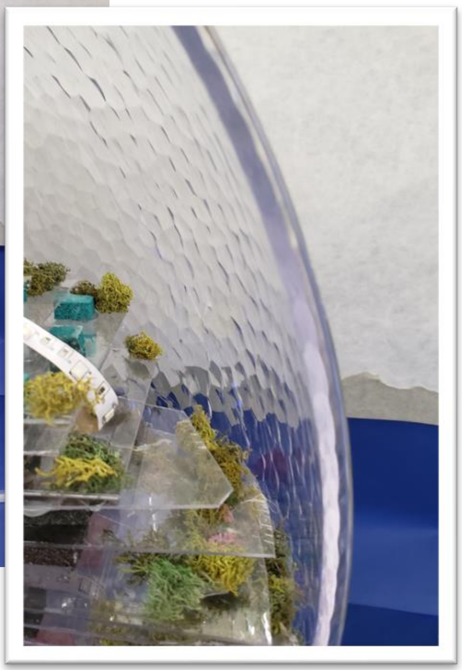
What do you want the judges to know about your transportation system(s)?:

Residents can travel outside the biosphere in our specially designed underwater bikes to visit the Aquatic Habitat and other destinations.

Underwater Bicycle Scale:
1 in. = 3 ft. (0.91 meters)

Principles of a Circular Economy in Action - Example 1



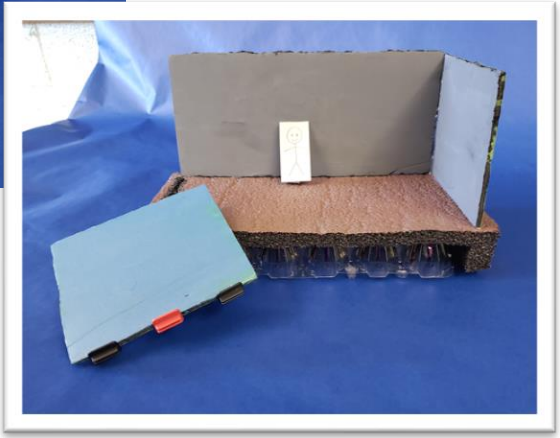


What is important for the judges to know about this element of your circular economy solution?:

Mechanical and electrical engineers designed plastic collection drones to remove the plastic from the Delta and carry it to our advanced recycling center, which removes impurities in the plastic ultimately used in the manufacturing of building materials used to construct our city’s biosphere dome.

Advancements in the recycling process has allowed us to recycle 100% of the plastic waste collected.

Principles of a Circular Economy in Action - Example 2



What is important for the judges to know about this element of your circular economy solution?:

Our Modular Building Grid (MBG) has allowed homes and businesses to be designed to be refurbished, re-used and kept in use indefinitely.

All structures are connected to the MBG providing structural and utility connections. This connection allows every home and office to be embedded with safety sensors, as well as the city-wide WIFI and recycling collection systems.

MBG Model Scale: 1 in. = 2 ft. (0.61 meters)

Principles of a Circular Economy in Action - Example 3

What is important for the judges to know about this element of your circular economy solution?:

Advanced human waste recycling and air-protein generation allow our city to produce all its own food by regenerating natural systems.

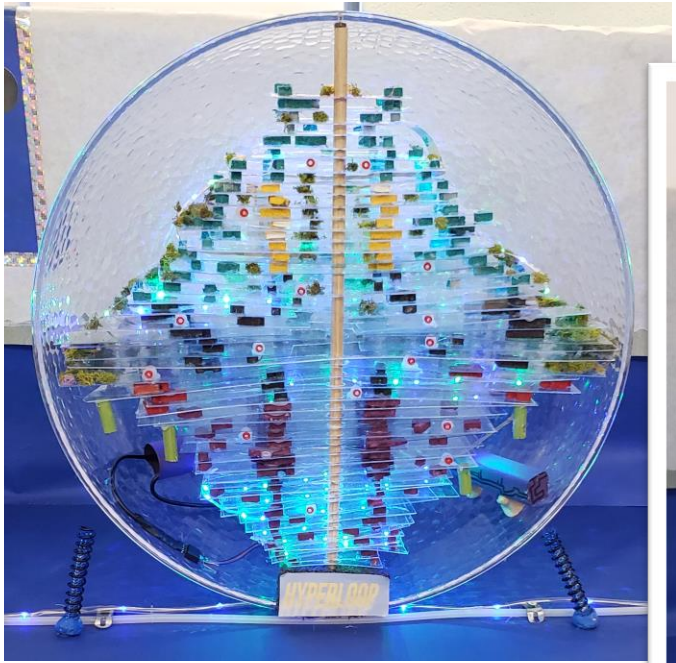
Human waste is collected and delivered to a composter where genetically enhanced microbes are introduced to accelerate the decomposing process, resulting in fertilizer, distributed to plants in our agricultural center.

Mekong Meat is an air protein created by microbes taking in carbon dioxide and producing an edible protein while giving off clean oxygen.

Section II

BUILD IT: QUALITY, SCALE, AND MATERIALS

Innovative Material & Use Example 1



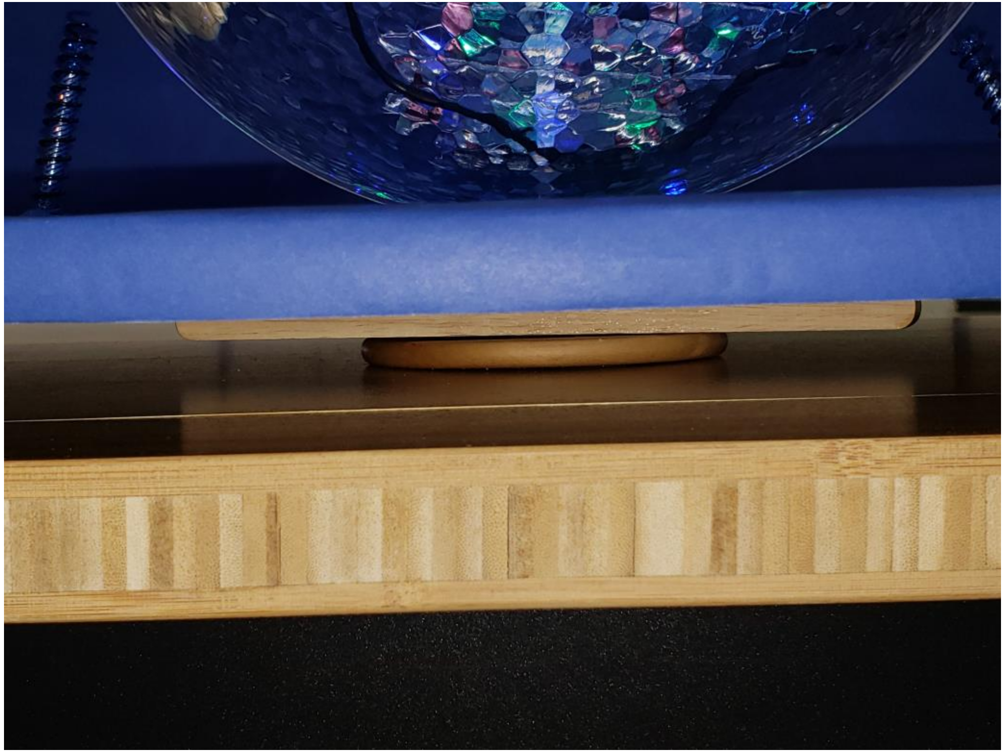
Choose a recycled or reused item and describe how you used it creatively in your model:

We used a large salad bowl in our model to construct our biosphere and to convey the geodesic surface.

The size of the bowl dictated the scale of our overall model (Model Scale: 1 in. = 30 meters).

We used one salad bowl to be half of the biosphere so we could show the inside of the city.

Innovative Material & Use Example 2



Choose another recycled or reused item and describe how you used it creatively in your model:

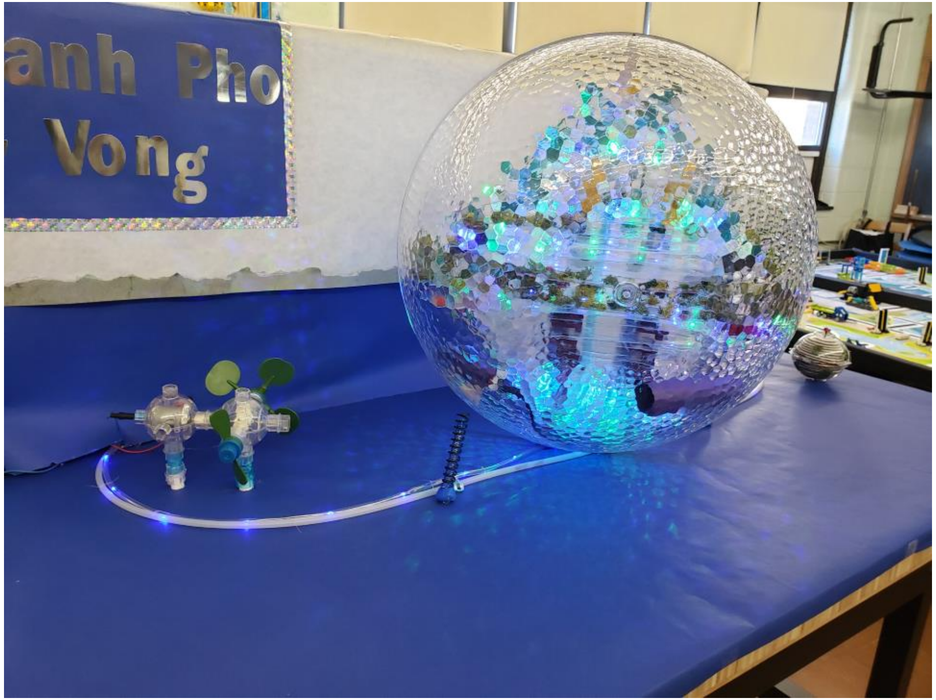
We used pieces of a former lazy susan to be able to turn our model to show the front and back of the biosphere, as well as the front and back of the whole model.

Innovative Material & Use Example 3

Choose another recycled or reused item and describe how you used it creatively in your model:

We used two half-sections of a large, plastic tomato container to construct our Aquatic Habitat. We wanted to represent a similar but smaller version of our biosphere.

Example of Scale



Scale used in model (e.g., 1”= 10’, or 1”=22’): 1 inch = 30 meters

Structure 1

What type of structure is this?:
On the right – The Biosphere

What size is the structure on the model?: 17 inches in diameter

What size would this structure be in real life?: 510 meters in diameter

Structure 2

What type of structure is this?:
On the left – Hydro-Mineral Extractor

What size is the structure on the model?: 5” in length

What size would this structure be in real life?: 150 meters in length

Moving Part

- **Team Educators**: Don’t forget to include the link to your team’s moving part video in your Educator Dashboard submission section. https://youtu.be/0tqbjNgkWQk

- **Judges**: Watch and review the moving part video from this team in your Judge Dashboard.

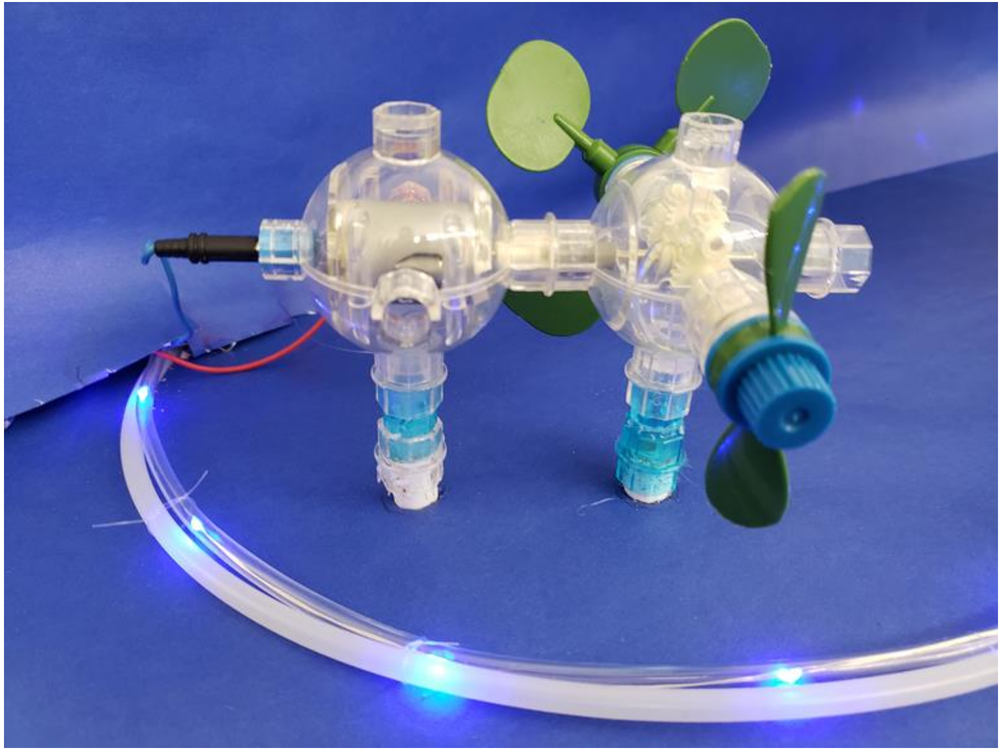
Video Details:

- The video must be posted as to be publicly available for judges to access on either YouTube or Vimeo.
- Video cannot exceed 1 minute.
- Teams need to mention their city/team name in the video.
- Teams must show the moving part in action.
- In the video, share what role the part plays within the city and how your team built it.

Section III

JUDGE ASSESSMENT OF MODEL

Futuristic Technology Example 1

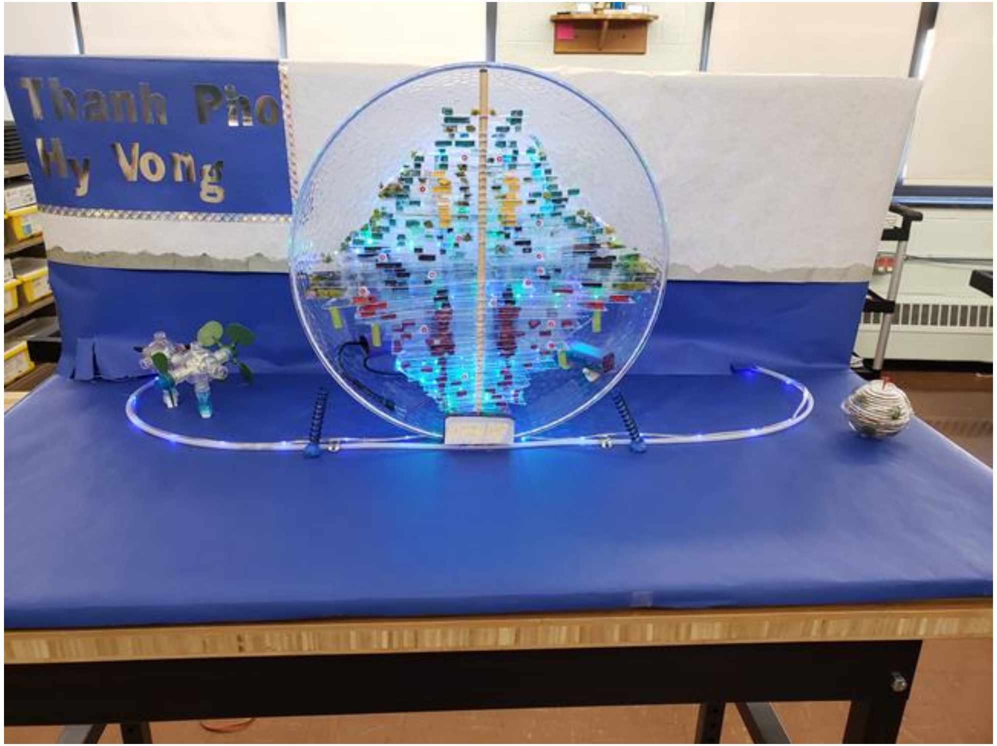


What is important for the judges to know about this example of technology?:

Hydro-Mineral Extractors remove tin, cooper, nickel, and other minerals from the ocean water.

Propellors direct the water. Pre-filters remove fish and trash, while a centrifuge separates out the minerals. Electrolysis collects trace metals.

Futuristic Technology Example 2



What is important for the judges to know about this example of technology?:

Our Hyperloop System is a network of propulsion tubes that transport Pods to and from different levels of our biosphere. Cube shaped, the personal vehicle pods are integrated as a room in our Hyperloop homes. Hyperloop Stations are located on every level.

The Hyperloop System connects to bullet trains that provide inter-sphere transportation.