2021-2022 City Model Slideshow

School/Organization: **Fugett Middle School**

Educator Name: **Todd Saundurs**

Future City Team Name: **Phiniksa**

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.

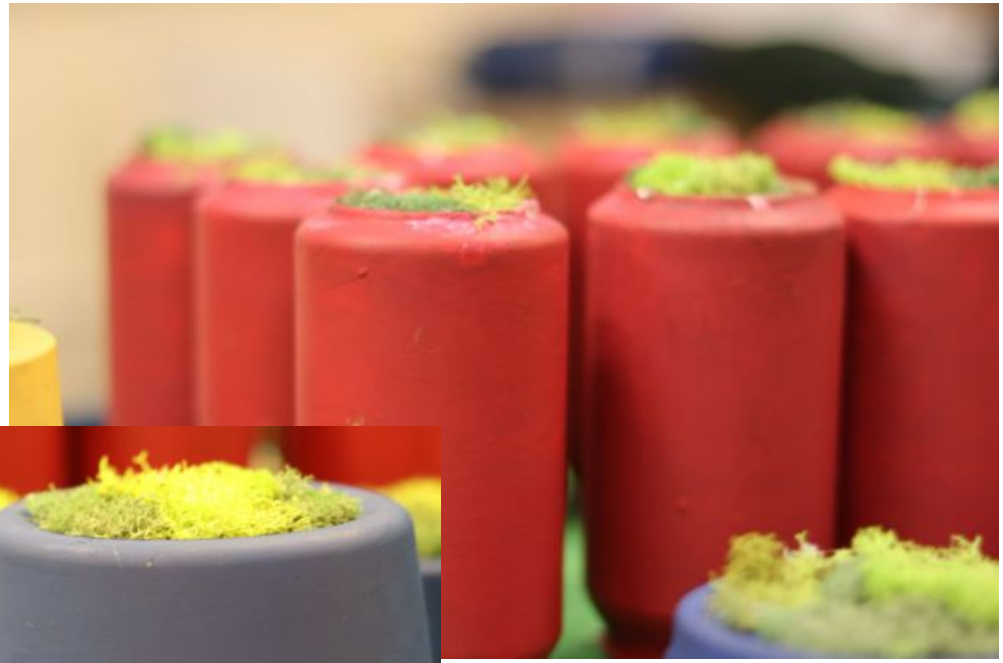
- When finished, save the slideshow as a PDF and upload to the Educator Dashboard at FutureCity.org.

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

Section I

CITY DESIGN

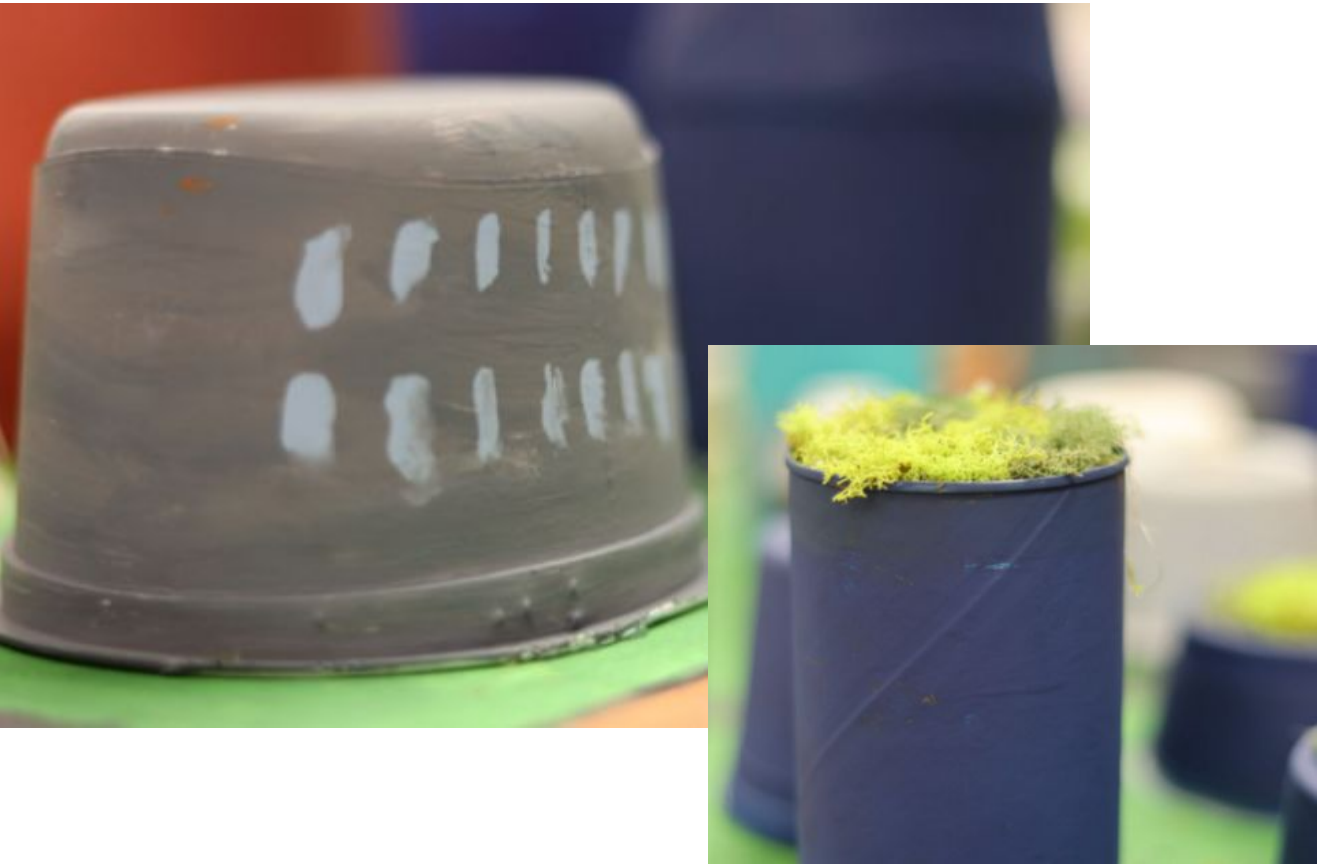
Residential Zone



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

Each red building in the majority of Phiniksa's residential zone is composed of mixed-use zoning on the first two floors, with local commercial shops and offices, and residential apartments on the other 18 floors.Each building can accommodate about 400 residents with seven spacious two bedroom apartments per floor and about 125 apartments total. Phiniksa also incorporates buildings that have accommodations for residents who would like a larger living space and have some extra money as the blue luxury buildings surrounding one of the towering shopping districts.

Commercial Zone



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

From the luxury blue shopping tower to the seaside mall and mixed-use commercial areas in every residential building, customers have many choices for local commercial stores and shops. Both residential areas have a commercial aspect in them, whether it is the mixed use buildings or the tower nextdoor. There is also a nearby mall. All of this means residents can easily access their favorite stores, from grocery vending machines to luxurious clothing brands.

Industrial Zone

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

The City of Phinkisa incorporates industrial zones, which supplies hundreds of jobs to workers and keeps the city's economy stable. Phiniksa has strict requirements intended to keep the city's air, water, and ground pollution to an absolute minimum. These requirements entail almost entirely eliminating greenhouse gases and other industrial waste. The city model features a multi-purpose factory named the Remanufacturing, Refurbishment, and Green Factory Complex (RRGFC) to produce commercial goods.

Infrastructure Example 1

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

Water

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

Phiniksa includes multiple water utilities to achieve its status as a waste free city. These utilities include a water purification system that filters and purifies wastewater before it is redistributed throughout the city. To account for water lost due to evapotranspiration or other uses, new water is desalinated from ocean water to create more pure water.

Infrastructure Example 2

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?:

To produce the required energy in an efficient manner, Phiniksa uses these solar panels to produce power. They are located on pools of water to properly harness the reflected light. Inside, this is converted directly into electricity. With the remaining space, we use water to create hydroelectric power.

City Services Example 1

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?:

We have three school buildings: a primary school building (Grades PreK-6), secondary school building (Grades 7-12), and a college. The Phiniksa Area School District (PASD) provides specialized textbooks to the school to teach students important key concepts. PASD also offers advanced classes and many extracurricular activities to enhance students' learning.

City Services Example 2

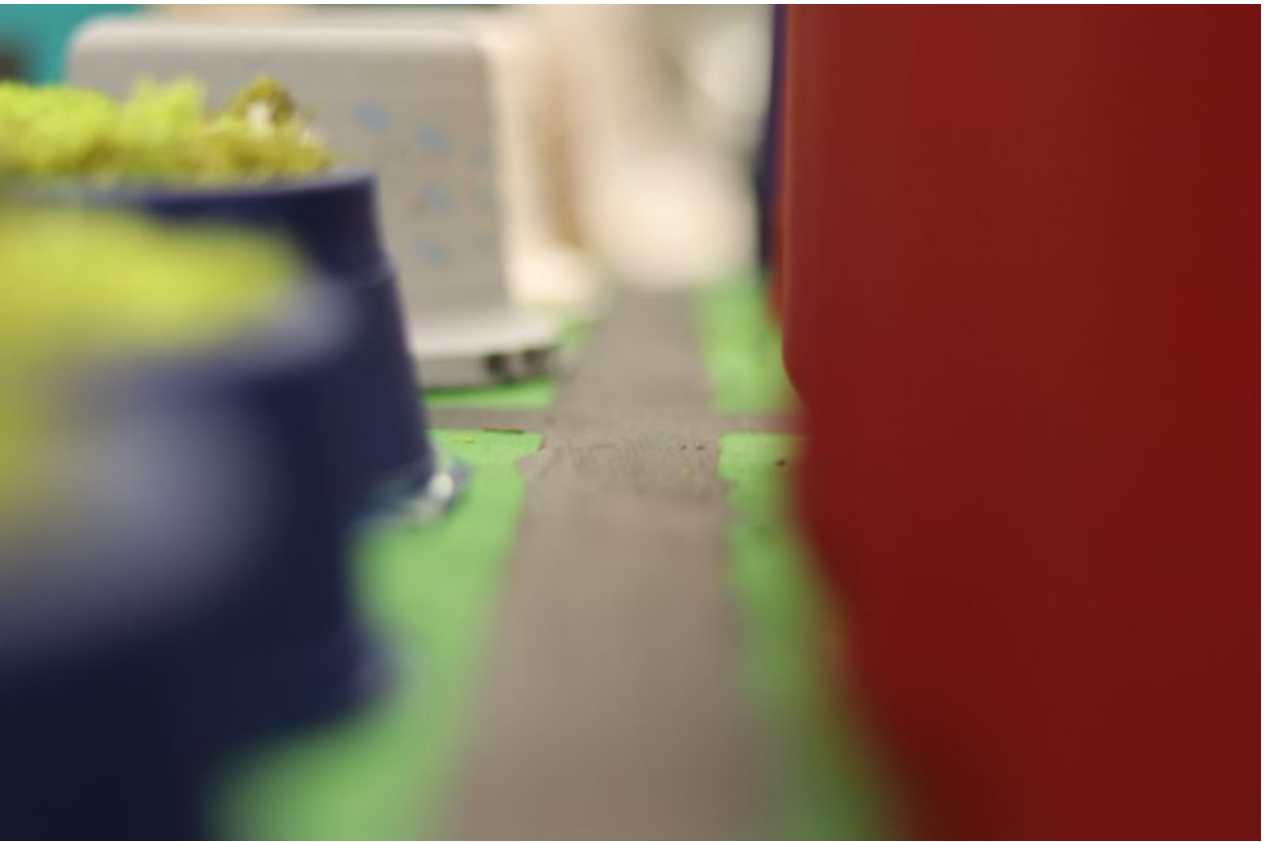
What type(s) of city services are shown here (health, education, etc.)?:

Fire and Police Departments

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

Phiniksha is a safe city, but someone has to keep it that way. There is a mixed usage police and fire station. In the one half, the local law enforcement detains any troublemakers, while on the other half, courageous firefighters put out fires that happen to pass through the city's excellent safety system and refine technology to prevent fires in the first place.

Transportation Example 1



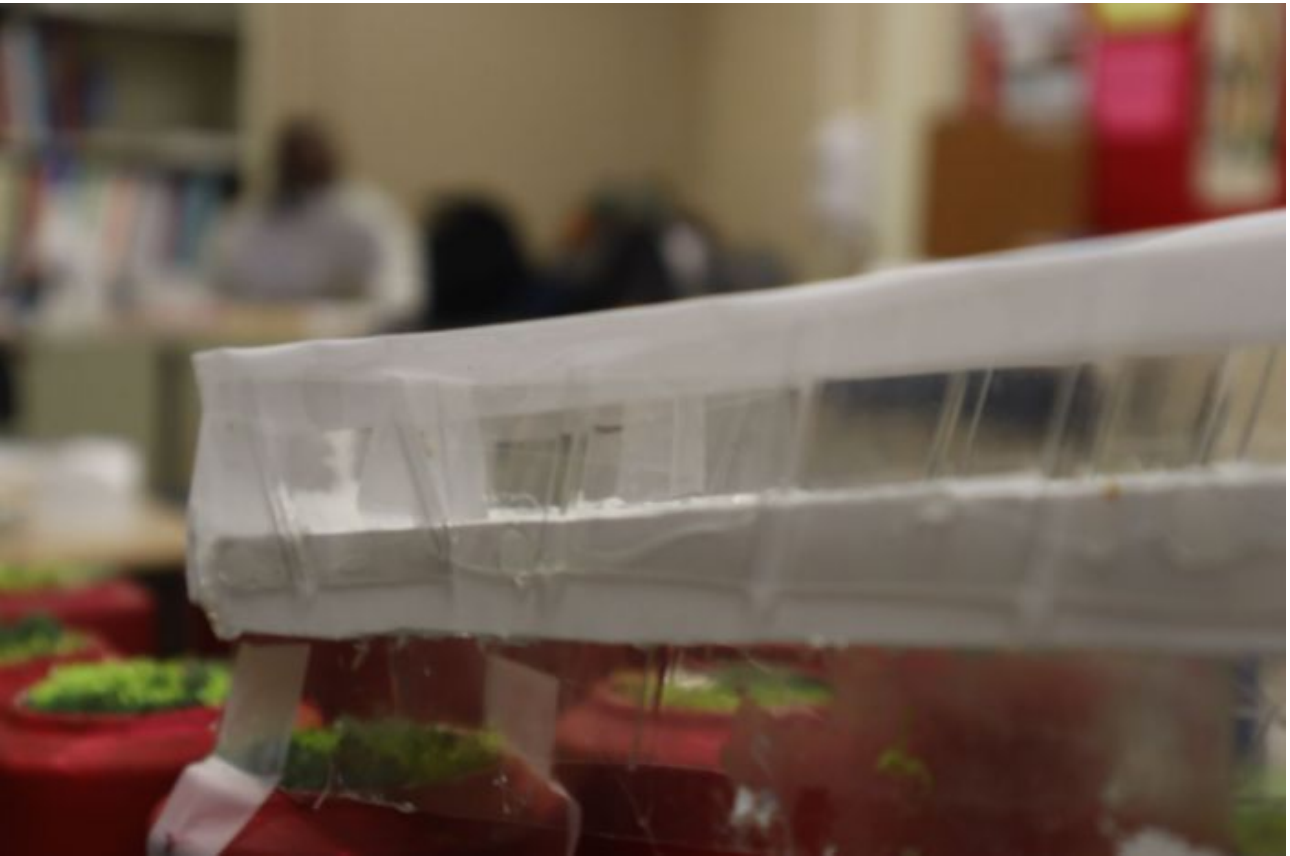
What type(s) of transportation systems are shown here?:

Road System

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

Our city has four lane main roads that divide the commercial residential and industrial zoning. All of the cars in the city are electric to create no waste, so there are easily accessible charging stations throughout the city.

Transportation Example 2



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

Maglev Train

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

The above ground maglevs are one of the major forms of public transportation in the city. They can transport citizens from any area in the city, so they reach speeds of 300 mph for long distances.

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?:

One way Phiniksa incorporates a circular economy is by growing fresh produce on the roofs of many buildings. This accounts for a major part of resident's diets, but their are also industrial greenhouses throughout the city to provide even more fresh fruits and vegetables.

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?:

To keep materials in use, our city uses recyclable everyday resources such as bamboo and sugarcane utensils or thrift stores that can recycle clothing and textiles. Those materials are then brought to one of our recycling plant, which is also known as a Remanufacturing, Refurbishment, and Green Factory Complex (RRGFC) that can make them into remanufactured and refurbished products.

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?:

To completely eliminate carbon emissions from electricity production, Phiniksa utilizes a combination of solar panels and hydroelectricity. Both of these forms of power generation have zero carbon footprint, so they are ideal for use in a circular economy.

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:

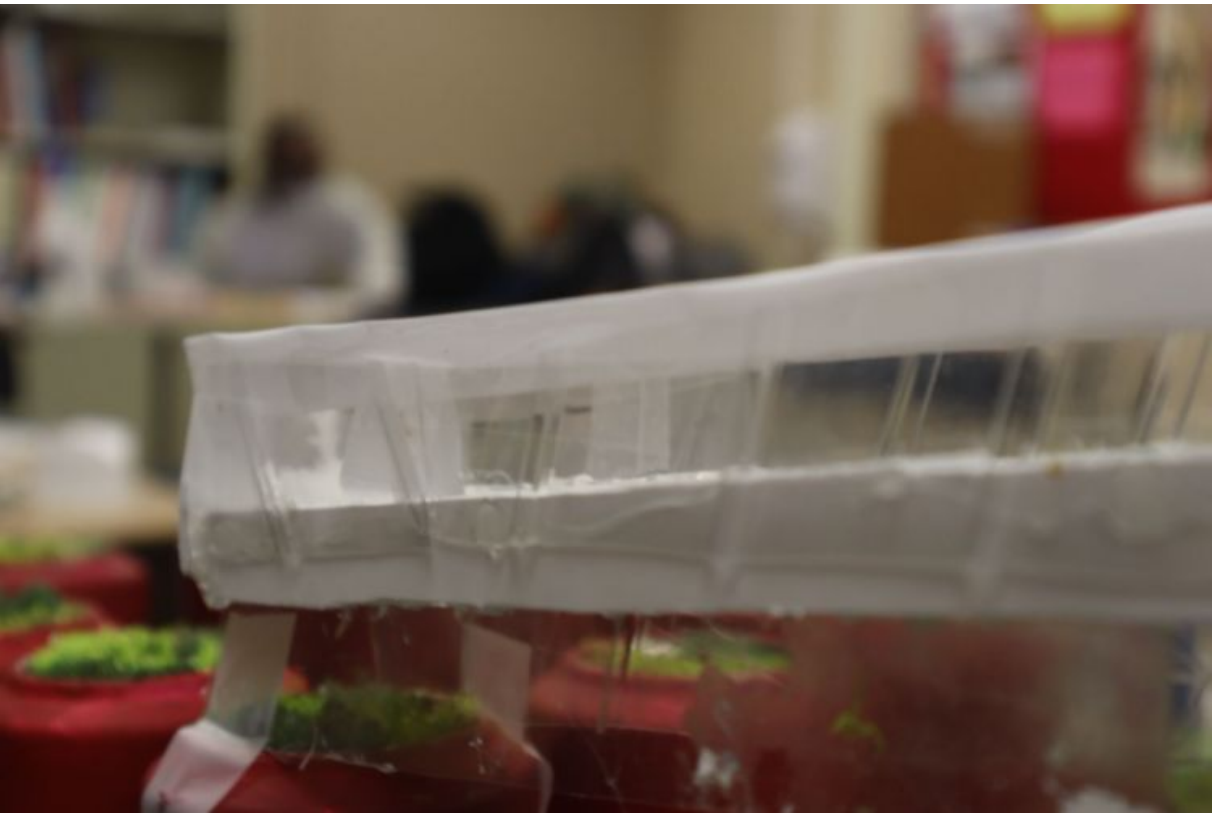
Our Multi-Source Power Generation Station(MSPGS) looks great, but it is actually made of egg cartons! We painted and glued the egg cartons to look like the MSPGS with pools of water for hydroelectricity storage and solar panels on top.

Innovative Material & Use Example 2

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

Despite factories being really difficult to make without spending money, we managed to do it by using pringles cups and small cardboard trays. Both of these components help form the RRGFC.

Innovative Material & Use Example 3



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

A third example of innovative material use in our model was using pieces of a clear plastic container to form guardrails for our maglev. These clear plastic strips also function as viewing windows to see the maglev in action.

Example of Scale

Scale used in model (e.g., 1”= 10’, or 1”=22’): 1”=40’

Structure 1

What type of structure is this?:
Residential Building
What size is the structure on the model?:
2.5 inches across
What size would this structure be in real life?:
100 feet across

Structure 2

What type of structure is this?:
Greenhouse
What size is the structure on the model?:
1 inch by 2 inches
What size would this structure be in real life?:
40 feet by 80 feet

Moving Part

- **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

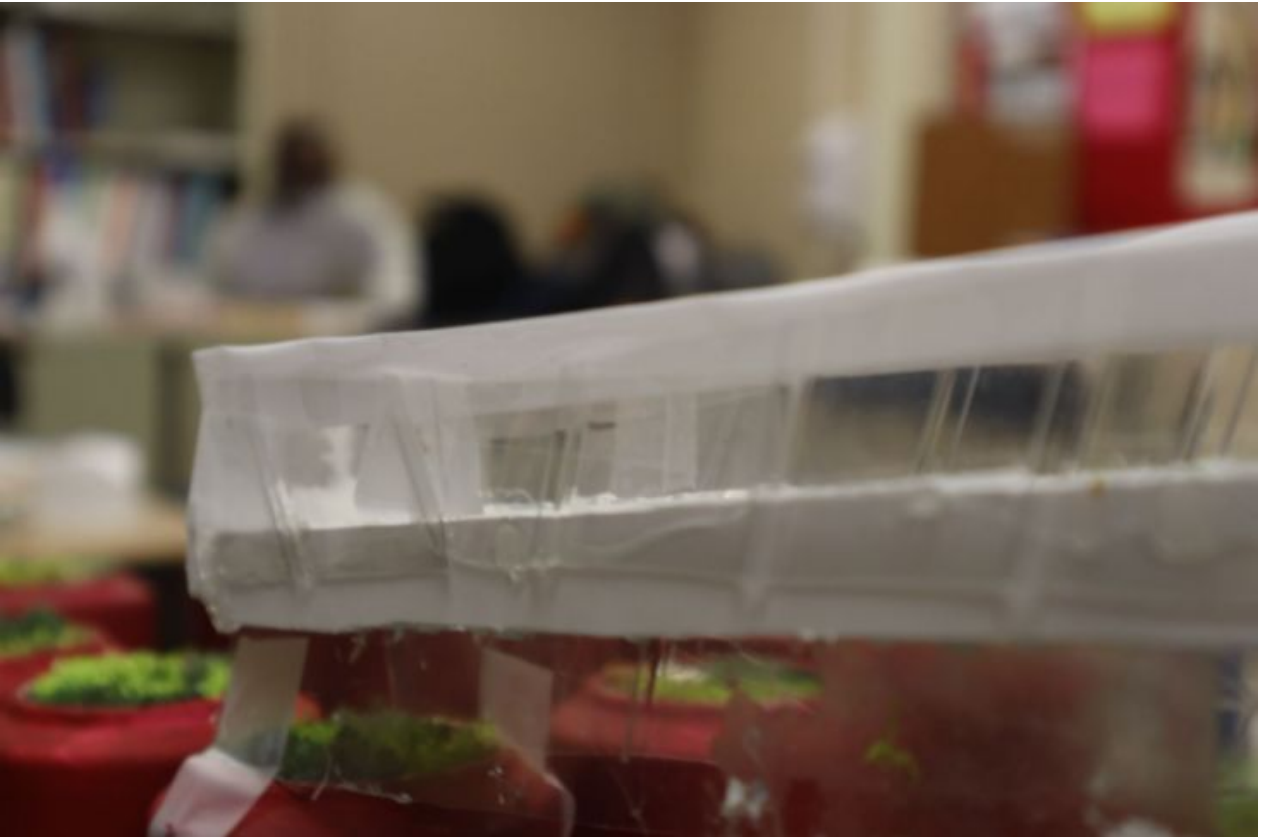
JUDGE ASSESSMENT OF MODEL

Futuristic Technology Example 1

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

These solar panels are futuristic, innovative, and unique because they are surrounded by water at their base. This allows the solar panels to maximize their energy efficiency by keeping them cool. These solar panels also have the ability to track the sun to maximize energy output.

Futuristic Technology Example 2



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

Phiniksa includes many futuristic elements, such as elevated maglev trains that travel through the residential and commercial areas. They run throughout the entire day as they are one of the most common modes of transportation, as well as the most used. They run smoother and faster than today's maglevs due to an improved design and a stronger magnetic force, making it more efficient.