

## **NTX Future City Junior, 2021**

### **PART 3 TEAM MODEL PRESENTATION VIDEO**

Students record an up-to-7-minute video presentation that explains their model, their future city and their solutions to the Living on the Moon challenge.

#### **Suggestions and Resources for Completing the Presentation Video Assignment**

Engineers communicate with a variety of professionals every day. Being able to talk about their ideas clearly and succinctly is an important skill that engineers and technical professionals use throughout their careers. For this deliverable, students develop these communication skills by creating and delivering a recorded video presentation that explains their model, highlights their futuristic ideas and showcases their innovative solutions to this year's Living on the Moon challenge.

Presentation Resources: Begin by reviewing the Presentation Requirements, below. In addition, these resources can help students create their video presentations and practice them.

- How to Make a City Presentation Video student handout: (attached). The ideas in this resource can serve as a starting point for your team to discuss how to format and film the presentation video.
- Past Presentations: Since this is the first year for the Junior presentation requirement, we don't have examples of past presentations. You can review past presentations from the middle-school competition, however, we are not asking for that style of formal presentation from the Junior group.
- City Presentation Tips student handout: (attached).

#### **City and Model Presentation Video Assignment**

The team will record an up-to-7-minute video presentation by the three student team members that explains Time allowed:

- The video recording can be no more than 7 minutes.
- Presenters: Three students will represent the team in the video presentation (teams can be fewer than three students, but cannot be more than three). Adult team members (educators and/or mentors) may help with the filming, but the students will do all of the presenting.
- Presenting the model: The model or model segments will be the focus of the video presentation. However, other visual aids may be used to help explain some ideas or concepts. These might include posters, graphics, or photographs. No copyrighted materials (such as music, photos, and videos) may be used. Be sure your chosen visual aids – and the model in particular – are clear and legible for the online audience.
- Teamwork: The three presenters should share equal time during the video and demonstrate similar levels of knowledge of their future city.
- Budget: If materials other than the model are used during the presentation (such as posters, or other visual aids), their cost must be included in the total budget (with the model expenses) and may not exceed \$50. All expenses must be reported on the Competition Expense Form.
- Uploading your Video: Once your video is complete, post it on a publicly available platform that the judges will be able to access (such as YouTube). Upload the video URL to the Junior Team Center.
- Scoring: Scores are based on the quality of presentation content rather than elaborate video production.
- Review the rubric for guidance.

Consult the Model Rubric for details on what the judges' will be looking for in the models. Your presentation should:

- Touch on basic city zones and attractions
- Highlight infrastructure and technology used to protect the city from Moon hazards
- Emphasize futuristic technologies, innovations and city features
- Thoroughly discuss the essay solution of using a Moon resource for the benefit of the city, including the technology and engineering involved
- Demonstrate the moving part (or parts) and describe its function in the city
- Discuss the scale used in building the model and show examples

### **Competition Scoring**

Teams can earn up to 75 points for their Model. Make sure students have thoroughly covered these categories in the rubric to maximize points:

- City Design 15 points
- Model: Quality & Scale 15 points
- Model: Materials & Moving Part(s) 10 points
- Presentation Content & Delivery 20 points
- Judge Assessment of Design 15 points

Total 75 points

### **Scoring Deductions**

5 points – Late submissions are accepted with a small point deduction (see online schedule)

5 points – Not including your receipts with your Competition Expense Form will result in losing points.

15 points – A missing, incomplete, or inaccurate Competition Expense Form will lose points.

15 points – There is a budget of only \$50 for the model

15 point – Presentation video exceeding 7 minutes

## HOW TO MAKE A MODEL PRESENTATION VIDEO

Teams will record an (up to) 7-minute video that presents their future city model and solutions to the Living on the Moon challenge.

### KEEP IN MIND:

- Scores are based on content rather than production. A more expensive or professionally produced video won't earn points based solely on production!
- Review the deliverable requirements and rubric with your team to ensure you meet the content expectations.
- Visual aids such as greenscreens, background images, or slideshow images can be used (but not required), however the focus of the presentation should be the physical model.
- Only three student presenters can appear in the video.
  - Adults may assist in running the camera, but they should have no input into the presentation content or delivery (i.e., adults are not directors, writers, producers or in any other way creative contributors).
- Make sure the audio for each presenter is clear and audible.

### Example Formats:

This list is not exhaustive. Other formats are allowed as long as they follow all rules and requirements. If you have questions, please check the rules or contact the Regional Coordinator.

1. **ZOOM, GOOGLE, OR SIMILAR VIDEO CHAT PLATFORM:** If your team is socially distancing, you might choose to record your three presenters during a video chat. Model segments or other visual aids can be held up to the camera by the presenters. Don't forget that many platforms have mobile apps. If a presenter doesn't have access to a computer with a webcam, they may be able to record on a cell phone.
2. **PRESENTERS TOGETHER/ONE CAMERA:** If your three presenters are physically together, you may choose to record them all at once. This can be done with any available tools (cellphone camera, computer webcam, etc.).
3. **RECORD SEPARATELY:** You may choose to have each presenter film themselves separately, then have a team member edit the segments into one video. Remember that this editing needs to be done by a student member of the team (not an adult).

## **MODEL PRESENTATION TIPS**

### **Prepare the Presentation:**

- Review the How to Make a City Presentation Video student handout (above).
- Create an outline of the main points your team wants to make. Your City Essay outline is a good starting point. Remember to review the rubric as you design your video presentation.
- Write a script based on your outline. The script is what each member of the team will say during the presentation. It needs to sound natural and not as if you're reading your essay out loud.
- Decide which team presenter will say which part of the script. Write each person's lines on note cards and practice, practice, practice! Get really comfortable with your part so that you don't spend the whole presentation staring at your note cards! They're just there if you forget something.
- Take advantage of moments to be especially creative. In the beginning, you want to grab the attention of your audience. Then enthusiastically share details about your future city and its innovative and futuristic features. At the end, you want to make the audience members wish they could live in your city!
- Use your City Model segments. Point out innovative features and interesting landmarks in your city. You can also use other visual aids during your presentation, such as posters, slides, and props.

### **Practice the Presentation:**

- Rehearse the presentation until the three presenters feel confident.
- You might want to define cues among team members to ensure a smooth transition, particularly in a virtual environment.
- Have friends or family members record your practice and then review it with your team and make adjustments as needed. Reviewers can use the rubric to help give good feedback.
- Take turns being coach and presenter. After each practice presentation, have peer coaches discuss the following:
  - What parts of the presentation were clear and informative?
  - Were there any points they didn't understand? What did they like best about the presentation?
  - How did the presenters use the model? Was it clearly visible? Did they use any other visual aids and were they effective and informative?
  - Did the presenters look into the camera? How were their gestures, tone of voice, and pace of the delivery?

### **Record the Presentation:**

- Speak clearly and audibly.
- Look into the camera and be confident.
- Share your enthusiasm about your future city and solutions to the Living on the Moon challenge.
- Remember to have fun!

## Scale Model Presentation Rubric (FC Jr.)

	<b>0 No Points</b> Requirements missing	<b>1 POOR</b> Poor-Fair quality. Fulfills at least 20% of requirements.	<b>2 FAIR</b> Fair-Average quality. Fulfills at least 50% of requirements	<b>3 GOOD</b> Average quality. Fulfills at least 90% of requirements.	<b>4 VERY GOOD</b> Above average quality. Fulfills 100% of requirements.	<b>5 EXCELLENT</b> Excellent quality. Fulfills 100% of requirements. Additional distinctive features.
<b>I. CITY DESIGN (15 POINTS)</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>1. Model demonstrates theme: Living on the Moon</b> <ul style="list-style-type: none"> <li>Incorporating essay topic/theme into model</li> <li>Accounting for Moon environment</li> <li>Using Moon resources</li> </ul>	No illustration of theme.	Little illustration of problem or solution.	Some illustration of problem and attempt at solution.	Fairly good illustration of solutions to living on Moon.	Good overall illustration of solutions to living on the Moon. Could be more comprehensive.	Excellent illustration and overall solutions to the challenge of living on the Moon.
<b>2. City Representation</b> <ul style="list-style-type: none"> <li>Includes clearly recognizable city elements and identifiable structures</li> </ul>	No recognizable structures.	Elements and structures unclear. Little variety.	Elements and structures somewhat clear. Little variety.	Elements and structures clear. Some variety.	Elements and structures clear and some variety. But, could be more comprehensive.	Elements and structures form clear representation of city. Very good variety.
<b>3. City Infrastructure and Services</b> <ul style="list-style-type: none"> <li>Includes infrastructure and services essential to support the theme (Living on the Moon)</li> </ul>	No infrastructure or services.	Shows very little infrastructure and services.	Few infrastructure or service components.	Some infrastructure and services. Few essential to theme.	Includes infrastructure and services essential to the theme. Some additional infrastructure and services.	Thoroughly represents infrastructure and services essential to theme, as well as some additional city infrastructure.
<b>II. MODEL: QUALITY AND SCALE (15 points)</b>						
<b>4. Quality Workmanship and Age Appropriateness</b> <ul style="list-style-type: none"> <li>Age appropriate for 4-5<sup>th</sup> grade</li> <li>Quality construction</li> </ul>	Poor quality. Not age appropriate.	Mediocre quality.	Fair to good quality.	Good quality. Age appropriate.	Very good quality. Age appropriate.	Excellent quality. Age appropriate.
<b>5. Appearance</b> <ul style="list-style-type: none"> <li>Use of color, graphics, shapes, etc.</li> <li>Realistic elements (flora, fauna, landscapes)</li> </ul>	No aesthetics.	Poor aesthetics.	Fair aesthetics.	Good aesthetics enhance the model.	Very good aesthetics enhance the model.	Excellent aesthetics enhance the model.
<b>6. Model Scale</b> <ul style="list-style-type: none"> <li>Appropriate scale chosen to show structure and detail</li> <li>Consistent scale throughout model or model segment</li> <li>Applied horizontally and vertically</li> </ul>	Scale not used or demonstrated.	Inconsistent scale for majority of model or model segment.	Fair scale choice. Some scale inconsistencies within model or model segments.	Good scale choice, city elements easy to identify. Scale consistently applied over majority of model or model segment.	Very good scale choice; city elements easy to identify. Consistent application across model or all model segments.	Exceptional scale choice, city elements very easy to identify. Consistent application of chosen scale across entire model and model segments.
<b>III. MODEL: MATERIALS AND MOVING PARTS (10 points)</b>						
<b>7. Innovative Construction Materials, Techniques</b> <ul style="list-style-type: none"> <li>Variety of materials, imaginative or unusual materials</li> <li>Creative modification and application of recycled materials</li> <li>Building materials primarily recyclables to comply with \$50 budget.</li> </ul>	No creativity or innovation.	Few recycled materials. Not within budget. Very few creative materials or modifications.	Recycled materials. Little creativity, variety. Little attempt to modify.	Recycled materials. Some variety of innovative materials. Some creatively modified.	Recycled materials. Good variety of innovative materials. Many creative modifications and applications.	Recycled materials. Exceptionally varied and innovative materials. Most creatively modified and applied.

## Scale Model Rubric (FC Jr.) – cont'd

	<b>0 No Points</b> Requirements missing	<b>1 POOR</b> Poor-Fair quality. Fulfills at least 20% of requirements.	<b>2 FAIR</b> Fair-Average quality. Fulfills at least 50% of requirements	<b>3 GOOD</b> Average quality. Fulfills at least 90% of requirements.	<b>4 VERY GOOD</b> Above average quality. Fulfills 100% of requirements.	<b>5 EXCELLENT</b> Excellent quality. Fulfills 100% of requirements. Additional distinctive features.
<b>8. Moving Part Innovation and Quality</b> <ul style="list-style-type: none"> <li>• At least one moving part</li> <li>• Quality workmanship</li> <li>• Innovative design and execution</li> <li>• Closely related to function of city</li> </ul>	No moving part.	One moving part. Fair quality. But cosmetic: not relevant to city function.	One moving part. Good quality. Little innovation. Not relevant to city function.	At least one moving part. Good quality. Somewhat innovative and related to city function.	At least one moving part. Very good quality. Innovative and related to city function	More than one moving part. Excellent quality. Repeatable movement. Highly innovative and essential to city function.
<b>IV. PRESENTATION: CONTENT AND DELIVERY (20 POINTS)</b>						
<b>9. Presentation content and delivery</b>	Disorganized and unclear.	Poorly organized. Needs more practice	Fair organization. Covers major elements. Lacks detail. Presenters lack confidence.	Covers all major elements. Details could be clearer. Presenters good, but could be better prepared.	Well organized and detailed. Team delivery confident and prepared.	Extremely well organized with excellent details. Confident delivery by entire team.
<b>10. Use of demonstration aids</b> <ul style="list-style-type: none"> <li>• Model as principal demonstration aid</li> <li>• Other demonstration aids, if any, enhance presentation</li> </ul>	Model not demonstrated.	Model not effectively demonstrated.	Model demonstration good, but missed important elements.	Model demonstration good. Covered most of important elements, but lacking in detail.	Very good and detailed demonstration of model. Additional demonstration aids, if any, enhanced presentation.	Extremely good demonstration and explanation of model. Detailed and thorough. Additional demonstration aids enhanced presentation.
<b>11. Engineering and roles</b>	No discussion	Mentions engineering, but little discussion of roles.	Demonstrates limited knowledge of engineering and roles.	Demonstrates good knowledge and understanding of engineering and roles.	Demonstrates very good knowledge and understanding of engineering and roles.	Demonstrates excellent and thorough knowledge and understanding of engineering and roles.
<b>12. Engineering design process related to theme challenge. Tradeoffs and compromises</b>	No discussion.	Little mention of design process, tradeoffs or compromises	Some discussion of design process, tradeoffs or compromises	Good analysis of tradeoffs and compromises. Discusses design process.	Very good analysis and discussion of design process, tradeoffs and compromises.	Excellent and thorough discussion of design process, tradeoffs and compromises.
<b>V. JUDGE ASSESSMENT OF DESIGN (15 POINTS)</b>						
<b>13. Innovative, Futuristic Solution</b> <ul style="list-style-type: none"> <li>• Innovative solutions to challenges of living on the Moon.</li> <li>• Innovative solutions for the use of Moon resources</li> </ul>	No solutions	Poor solution, not innovative or futuristic.	Fair solution. Somewhat innovative and futuristic.	Good solution. Somewhat innovative, futuristic.	Very good solution that is innovative and futuristic.	Excellent, innovative and futuristic solution.

## Scale Model Rubric (FC Jr.) – cont'd

	<b>0 No Points</b> Requirements missing	<b>1 POOR</b> Poor-Fair quality. Fulfills at least 20% of requirements.	<b>2 FAIR</b> Fair-Average quality. Fulfills at least 50% of requirements	<b>3 GOOD</b> Average quality. Fulfills at least 90% of requirements.	<b>4 VERY GOOD</b> Above average quality. Fulfills 100% of requirements.	<b>5 EXCELLENT</b> Excellent quality. Fulfills 100% of requirements. Additional distinctive features.
<b>14. Engineering and Technology</b> <ul style="list-style-type: none"> <li>• Demonstrates understanding of engineering and technology</li> <li>• Innovative and plausible extrapolation of current technologies</li> </ul>	Little or no detail. No understanding.	Limited details. Understanding of concepts seems to be lacking.	Adequate details, but could be better. Decent understanding of concepts. Not particularly innovative or plausible.	Sufficient details and good understanding of concepts. Somewhat innovative and plausible.	Very good level of detail and understanding of concepts. Innovative and plausible.	Thorough, detailed and complete understanding of concepts. Extremely innovative and plausible.
<b>15. Teamwork</b> <ul style="list-style-type: none"> <li>• Team members supported each other</li> <li>• Team members shared time equally</li> <li>• Team members displayed an equal amount of knowledge</li> <li>• Full complement of team members (three students)</li> </ul>	No teamwork, or more than three students.	A small amount of collaboration among team members but more support of one another is needed; one or two tend to dominate.	Some collaboration, some support and sharing among some team members. Amount of knowledge appears unequal. One or two tend to dominate.	Good collaboration; support and sharing among most members. Full complement of three team members. Some team members have more knowledge and dominate	Very good collaboration, support and sharing among the team. Equivalent knowledge level for most of team. Full complement of three team members.	Excellent collaboration, support and sharing among all team members. Equivalent knowledge level for all. Full complement of three team members. No one dominates.