Virtual CNSEF 2021

Project Material Guidelines

MODIFIED from the Regeneron ISEF 2021 Virtual Competition

The Central Nebraska Science and Engineering Fair (CNSEF) is using this modified guide put out by the Science for Society and the public for conducting the ISEF 2021 virtual fair. These guidelines have been established to address a judging process that will occur remotely and through a digital medium. The International Rules & Guidelines remain as the guide of what is eligible and allowable. The goal of our modifications to closely follow the requirements of the ISEF competition to provide easy side-by-side comparisons for judging while still allowing students to showcase all they have done as part of their research project. Please contact the fair director at cnsef.unk@gmail.com for specific questions not addressed in these guidelines.

REQUIRED ITEMS

I. Regeneron ISEF Paperwork submitted on CNSEF Student Entry Google Form

a. This process remains the same as prior years and forms will be reviewed to confirm eligibility for competition.
b. These items must be submitted for your project to be eligible for judging:
    i. Abstract (250 words). This will be copy and pasted into the entry form. The official abstract form is NOT required for our fair.
    ii. Forms 1, 1A, Project Plan Summary, and form 1B.
    iii. Other forms as required. See Project Wizard for required forms.

II. Project Presentation

a. The project presentation replaces the project poster used during in-person fairs. Appendix II provides complete instructions of the format requirements and recommendations.
b. There are two suggested templates based on project type:
    i. Science Projects
    ii. Engineering / Computer Science/ Mathematics Projects.
c. Project presentations will be required to be submitted by a set deadline and cannot be edited once submitted.

III. Project Video (10-minute maximum)

a. Use this link to record or upload your video: https://flipgrid.com/34873f7b
b. This video should follow the Project Presentation Template found in Appendix II, excluding the references.
c. It is recommended that you use a Google Slideshow or PowerPoint Presentation in your video.
d. The student(s) must appear in the video.
e. See Appendix III for full instructions.

Additional OPTIONAL materials:

All judges will have access to these optional materials, just as they would at a students' booth, but it is advised that key information be provided in the required materials as outlined above and that these materials be considered supplemental. **Judges are not required to view any of these materials.**

1. ### Research Paper
   CNSEF does not require any project to include a research paper. However, many students have completed such a paper through the research process and would include it at their booth during an in-person fair. If you have prepared such a paper, you may upload it to share with judges, though judges are not required to review it.

2. ### Lab Notebook Image/Excerpt
   CNSEF does not require any project to submit a laboratory notebook. However, many finalists have this record of their research timeline and process and typically have it available at their booth. A student may upload a single PDF of up to 4 pages of a lab notebook to provide evidence of its use, but it is strongly advised NOT to share the notebook in totality to protect your intellectual property. Judges will have access to this file, but they are not required to view it.

3. ### Virtual Poster
   NJAS fairs in our region may be using virtual poster boards as part of their judging process and students will have the opportunity to submit their poster to our fair. The poster must be saved as a single PDF file. No multiple pictures are allowed. It is recommended that you build your poster in Google Slides or PowerPoint and export the one slide as a .pdf file. If you create a trifold poster board, you may take a picture of it but it must be a single photo and saved as a .pdf. Keep in mind that your poster cannot have your name, school name, or logos. Any pictures must have citations. If you took the picture yourself, the caption should read "Photo by the researcher". Judges will have access to this file, but they are not required to view it.

Appendix I. Submission and Review Process

Regeneron ISEF Paperwork

All students must submit the STUDENT CNSEF Fair Registration Google Form found on our website prior to February 17, 2021, at 11:59 PM CST. Paperwork includes all of the ISEF paperwork required for their project. Minimally, all projects must have Checklist Forms 1, Student Checklist Form 1A, Project Plan/Summary and Approval Form 1B. The forms will be made available for the judges to review upon request. Missing or incorrectly filled out forms may disqualify your project from the judging process.

Display & Safety

Display & Safety inspections will include a review of all submitted materials and enforcement of the display guidelines as published in the International Rules and Guidelines. This includes meeting all of the format and size requirements, providing appropriate credits for photographs, graphs and other visuals and in having any permissions of individuals depicted in any project materials (on the board, slides or in the video) available.

Appendix II. Project Presentation Instructions

You may prepare your Project Presentation for Virtual ISEF 2021 using any software tools that you desire, but the final document submitted for display to the judges and the public must satisfy the following requirements.

Format Requirements

1. The Project Presentation must be a single PDF document limited to **no more than 14 pages**.
2. You must use a page size no larger than either American standard 8½"X11" or European standard A4.
3. The PDF document must open with default magnification "Fit Page" so that **the entire page is visible at the same time**. The pages should be created in Landscape mode.
4. Your PDF document must be without animation or active hyperlinks. The document must not have instructions to open in "full screen mode." Eliminating this mode automatically precludes page transitions and embedded videos or animations, so do not attempt to include these in your Presentation. (There is provision elsewhere in your submission for the video if you need something to move in order to illustrate your project.)
5. The page background color must be a light color, not affect readability and comply with all Display & Safety rules.
6. Text color must be predominantly dark to support readability.
7. All text should be readable easily when viewing the entire page at once. The smallest allowable font size of body text is 14 pt. and an 18 pt. font is recommended. *Exception:* You may use a smaller font size, down to 10 pt., for figure captions or photo credits.
8. All Project Presentation elements must conform to Display & Safety rules as if placed on a physical poster for display to judges and the public. Passing a Display & Safety inspection will be required to compete.

Format Recommendations:

1. Do not use non-standard fonts or colors to "stand out from the crowd" or to be entertaining. It is recommended that you use a font such as Arial, Calibri, Helvetica or Century Gothic.
2. Page titles should all be the same size. That size should be larger than headings within each page. In turn, headings should be larger than body text.
3. Avoid long expository paragraphs. State your points succinctly.
4. Use bullets to set out individual points of interest. Use numbered lists when the ordering of points of interest is important (*e.g.*, instructions to be followed in order, or items needing a reference anchor for citation elsewhere in your Presentation).
5. All body text should adopt a common font style and size. Similarly, all heading text should adopt a common font style and size. There is no recommendation for the style and size relation between body and heading text.

Project Presentation Templates

Choose one of the following templates to create your presentation. Do not include information not specified in this template. If you are submitting a continuation project, include only information related to this year's research unless otherwise directed in the instructions below. You may include graphical elements as they would explain or illustrate your work and can be contained within the overall page limits.

Each of the seven (7) required sections in each template must start on its own page and be in the order provided. Titles per section are provided as recommended titles, but alternate titles may be used. Each section may extend beyond one page as long as the total does not exceed 12 maximum pages.

TEMPLATE I: Science Projects
TEMPLATE II: Engineering/Computer Science/Mathematics Projects

Project Presentation Template: **Science Project**

1. **Project ID and Title**
   - The following should be included:
     - Project ID. This ID will be provided by the CNSEF upon submission of ISEF paperwork.
     - Project Title
     - NO NAMES OR SCHOOLS SHOULD BE LISTED.
2. **INTRODUCTION - What is your research question?**
   - Explain what is known or has already been done in your research area. Include a brief review of relevant literature. If this is a continuation project, a brief summary of your prior research is appropriate here. Be sure to distinguish your previous work from this year's project.
   - What were you trying to find out? Include a description of your purpose, your research question, and/or your hypothesis.

3. **METHODS - Explain your methodology and procedures for carrying out your project in detail.**
   - What did you do? What data did you collect and how did you collect that data? Discuss your control group and the variables you tested.
   - DO NOT include a list of materials.

4. **RESULTS - What were the result(s) of your project?**
   - Include tables and figures which illustrate your data.
   - Include relevant statistical analysis of the data.

5. **DISCUSSION - What is your interpretation of these results?**
   - What do these results mean? Compare your results with theories, published data, commonly held beliefs, and expected results.
   - Discuss possible errors. Did any questions or problems arise that you were not expecting? How did the data vary between repeated observations of similar events? How were results affected by uncontrolled events?

6. **CONCLUSIONS - What conclusions did you reach?**
   - What do these results mean in the context of the literature review and other work being done in your research area? How do the results address your research question? Do your results support your hypothesis?
   - What application(s) do you see for your work?

7. **REFERENCES**
   - This section should not exceed one page. Limit your list to the most important references.
   - List the references/documentation used which were not of your own creation (i.e., books, journal articles).

Project Presentation Template: **Engineering/Computer Science Project**

1. **Project ID and Title**
   - The following should be included:
     - Project ID. This ID will be provided by the CNSEF upon submission of ISEF paperwork.
     - Project Title

2. **INTRODUCTION - What is your engineering problem and goal?**
   - What problem were you trying to solve? Include a description of your engineering goal.
   - Explain what is known or has already been done to solve this problem, including work on which you may build. You may include a brief review of relevant literature.
   - If this is a continuation project, a brief summary of your prior work is appropriate here. Be sure to distinguish your previous work from this year's project.

3. **METHODS - Explain your methods and procedures for building your design.**
   - What did you do? How did you design and produce your prototype? If there is a physical prototype, you may want to include pictures or designs of the prototype.
   - If you tested the prototype, what were your testing procedures? What data did you collect and how did you collect that data?
   - DO NOT include a separate list of materials.

4. **RESULTS - What were the result(s) of your project?**
   - How did your prototype meet your engineering goal?
   - If you tested the prototype, provide a summary of testing data tables and figures that illustrate your results.
   - Include relevant statistical analysis of the data.

5. **DISCUSSION - What is your interpretation of these results?**
   - What do these results mean? You may compare your results with theories, published data, commonly held beliefs, and/or expected results.
   - Did any questions or problems arise that you were not expecting? Were these problems caused by uncontrolled events? How did you address these?
   - How is your prototype an improvement or advancement over what is currently available?

6. **CONCLUSIONS - What conclusions did you reach?**
   - Did your project turn out as you expected?
   - What application(s) do you see for your work?

7. **REFERENCES**
   - This section should not exceed one page. Limit your list to the most important references.
   - List the references/documentation used which were not of your own creation (i.e., books, journal articles).

Appendix III. Project Video Instructions

Record a video (maximum duration 10 minutes) explaining your project to the judges. All videos will be collected using this FlipGrid link. You may either record your presentation in FlipGrid OR upload your own video to FlipGrid. Videos will then be sent by a private link for judges to view.

What to include in your video:

1. Introduce Yourself: State your project number and your first name and the first name of your partner, if you have one.

2. Narrate your presentation. It is recommended that you use Google Slides or PowerPoint. FlipGrid will allow you to pause and change what is shown on the screen. Feel free to use the features that are available to best communicate your project to judges. Please do not use emoji's and stickers in the video. Your task is to effectively communicate what you accomplished with minimal distractions.

3. Additional considerations.

a. You may stand in front of a physical poster, like you would have done at an in-person event. Keep in mind that it may be difficult to make out small details on your poster.
b. You must be visible in the video as well as your partner, if you have one.
c. You do not need to list your references (bibliography) in your presentation.

To note:

- You can use any props or visuals you may have that are within the Display & Safety guidelines.
- Do not include anyone in your video other than the student researchers of the project.
- Do not add any advanced video editing features such as transitions or picture-in-picture effects that are available in video editing software.

Best Practices for Filming:

These videos will not be edited and will be sent to judges as they have been submitted.

- Please speak in English or provide English sub-titles.
- Film yourself in a well-lit and non-distracting environment so the viewer's focus stays on you and your work.
- For best results, film your video horizontally (landscape) and on a computer with a web camera.
- Keep the camera still and in place during filming.
- Speak clearly and loudly enough that the recording is able to pick up every word you say.
- Avoid long pauses.
- Listen to your video after recording to ensure your voice is clear and audible, and that the video has not picked up too much background noise.

Sharing Your Video:

- These videos will be stored and shared using FlipGrid. Use this link: https://flipgrid.com/34873f7b
- Videos not following the guidelines above may be disqualified from the judging process.
- Do not wait to upload your video at the last minute. Problems can and do occur. It is recommended that you submit your video to FlipGrid no later than Tuesday, February 23.
- Only ONE submitted video is allowed. If multiple videos are submitted by the same student, those videos will be disregarded and deleted.