AZSEF
ARIZONA SCIENCE & ENGINEERING FAIR

SENIOR DIVISION

PROJECT REQUIREMENTS

UPDATED OCTOBER 2026

REQUIRED ITEMS

I. AzSEF/REGENERON ISEF PAPERWORK

a. This process remains the same as prior years and will be reviewed by the Scientific Review Committee (SRC) to confirm eligibility for competition.

b. Submit with your project presentation for review by the judges:
   i. Official Abstract (250 words)
   ii. Regulated Research Institutional Setting Form 2C (if applicable)
   iii. Continuation Form 7 (if applicable)

II. VIRTUAL PROJECT PRESENTATION

a. The virtual project presentation will be used in conjunction with the physical project poster used during the in-person fair. Appendix II provides complete instructions of the format requirements and recommendations.

b. There are three suggested templates based on project type:
   i. Science Projects
   ii. Engineering Projects
   iii. Mathematics/Computer Science Projects

c. Virtual project presentations MUST be submitted by March 10, 2027 and will then be locked for Display & Safety inspection prior to competition.

d. Projects should NOT include student name, school, or previous Fair ID number.

e. Projects must contain the AzSEF project ID on the title slide.

III. QUAD CHART

a. The quad chart summarizes the project in a single page for a quick overview by the judges.

b. Appendix III provides complete instructions with format requirements and recommendations as well as sample templates.

c. Quad charts must be submitted by March 10, 2027 and will then be locked for Display & Safety Inspection prior to competition.

d. Quad charts should NOT include student name, school, or previous Fair ID number. Projects must contain the AzSEF project ID at the top.

IV. PHYSICAL PROJECT POSTER (BOARD)

All participants are required to present their project using a physical project poster (board), not to exceed the maximim size limit of 30 inches (depth) by 48 inches (width) by 94 inches (height; floor to top of project). Project Posters (boards) must meet all requirements per the Display & Safety Guidelines.

ADDITIONAL OPTIONAL MATERIALS

Judges will have access to these materials for review prior to judging, but there is no guarantee that they will review them.

I. PROJECT VIDEO 2 MINUTE MAXIMUM

Requirement for ISEF/Optional for AzSEF. This video should summarize your project.

II. VIDEO DEMONSTRATION/SIMULATION/ANIMATION 1 MINUTE MAXIMUM

If a project is best explained by showing a demonstration, simulation or animation, you may include a short video.

III. RESEARCH PAPER

Regeneron ISEF does not require any project to include a research paper. However, many finalists 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.

APPENDIX I. SUBMISSION AND REVIEW PROCESS

I. PAPERWORK REQUIREMENTS

Using the ISEF Forms Wizard, students should ensure all appropriate forms are completed and submitted by 11:59 PM on March 10, 2027. Minimally, all projects must have **Checklist Forms 1**, **Student Checklist Form 1A**, Project Plan/ Summary, **Approval Form 1B**, **Student Support Disclosure Form** and the **Official Abstract**.

Additionally, the **Regulated Research Setting Form 2C** and/or the **Continuation Form 7** should be submitted if appropriate.

II. DIGITAL PAPERWORK AND SIGNATURES

Digital signatures are permissible but must have a verification system via login and have a time and date stamp to indicate this authentication. Paperwork submitted to AzSEF must be scanned and submitted via zFairs online portal.

a. **Official Abstract approved by SRC** (250-word format)
The abstract summarizes the information contained in the rest of this document. An abstract includes: (a) the research question or engineering problem, (b) procedures used, (c) data, (d) interpretation and (d) conclusions. It also may include any possible research applications. It should be limited to these essential elements.

b. **Regulated Research Institutional Setting Form 2C** (if applicable)
If the Regulated Research Institution laboratories and facilities are closed to student researchers, the ISEF SRC has suggested that a Form 2C be used when support from mentors and those in a laboratory setting has been provided, even when the student received this support remotely. This can also include situations in which a high school teacher is supporting laboratory activities on behalf of a remote student to help clarify the student's involvement in each step of the project.

c. **Continuation Form 7** (if applicable)
Any project that is a continuation of a previous year's work must document that additional research is new and different on Continuation Form 7.

III. 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 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.

Vitual project presentations must pass a display and safety check prior to being eligible for judge review. Additionally, physical project boards must pass the display & safety check prior to being judged during the in-person day of AzSEF judging.

APPENDIX II. PROJECT PRESENTATION INSTRUCTION

You may prepare your Project Presentation for AzSEF using Google Slides, Microsoft PowerPoint, or Keynote. Regeneron ISEF 2027 will be in person, and will require participants to have both a virtual presentation and a physical project poster (board). Both Fairs require that the final project must satisfy the following requirements.

I. VIRTUAL PROJECT FORMAT REQUIREMENTS

a. The Project Presentation must be a single PDF document limited to no more than 12 slides/pages.

b. You must use a page size no larger than either American standard 8½"x11" or European standard A4.

c. The PDF document must open with default magnification "Fit Page" so that the entire page is visible at the same time. Recognizing that almost all judges will view your Project Presentation on screens that are wider than they are tall, you should create all pages in Landscape mode.

d. Your PDF 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 an optional video if you need something to move in order to illustrate your project.).

e. The page background color must be a light color and should not affect the readability.

f. Text color must be predominantly dark to support readability.

g. All text should be readable easily when viewing the entire page at once. The smallest allowable font size of body text is 14 pt. ***Exception:*** You may use a smaller font size, down to 10 pt., for figure captions or photo credits.

h. All Project Presentation elements must conform to D&S 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.

i. Virtual project presentations should NOT have your name or school listed anywhere in the presentation. The virtual projects are identified by the Fair ID assigned once you have registered in zFairs.

II. PHYSICAL PROJECT BOARD REQUIREMENTS

a. All participants are required to present their project using a physical project poster (board), not to exceed the maximim size limit of 30 inches (depth) by 48 inches (width) by 94 inches (height, floor to top of project).

b. Project materials must be able to stand alone- nothing can be attached to the table or wall.

c. Forms, as identified in the Required Forms section of the Display & Safety Guidelines, must be located at the project booth.

d. All project materials must adhere to Photograph and Image Display requirements as listed in the Display & Safety Guidelines.

e. Items/Materials listed under the "Not Allowable of Display or Project Booth" section of the Display & Safety Guidelines may NOT be at the project booth.

f. Projects will **NOT** have access to an electrical outlet during AzSEF.

III. FORMAT RECOMMENDATIONS

a. 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.

b. 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.

c. Avoid long expository paragraphs. State your points succinctly.

d. 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).

e. 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. Each section may use as many pages as you want, as long as all formatting instructions above (such as page count) are satisfied.

- **TEMPLATE I:** Science Projects
- **TEMPLATE II:** Engineering Projects
- **TEMPLATE III:** Mathematics/Computer Science Projects

PROJECT PRESENTATION TEMPLATE:

SCIENCE PROJECT

I. PROJECT ID AND TITLE

a. The following should be included:
   i. Project ID *This ID will be assigned by zFairs*
   ii. Project Title

b. **Do NOT include** your name or school.

II. INTRODUCTION WHAT IS YOUR RESEARCH QUESTION?

a. 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.

b. What were you trying to find out? Include a description of your purpose, your research question, and/or your hypothesis.

III. METHODS EXPLAIN YOUR METHODOLOGY AND PROCEDURES FOR CARRYING OUT YOUR PROJECT IN DETAIL.

a. 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.

b. **DO NOT include** a separate list of materials.

IV. RESULTS WHAT WERE THE RESULT(S) OF YOUR PROJECT?

a. Include tables and figures which illustrate your data.

b. Include relevant statistical analysis of the data.

V. DISCUSSION WHAT IS YOUR INTERPRETATION OF THESE RESULTS?

a. What do these results mean? Compare your results with theories, published data, commonly held beliefs, and expected results.

b. 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?

VI. CONCLUSIONS WHAT CONCLUSIONS DID YOU REACH?

a. 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?

b. What application(s) do you see for your work?

VII. REFERENCES

a. This section should not exceed one page. Limit your list to the most important references.

b. List the references/documentation used which were not of your own creation (i.e., books, journal articles).

PROJECT PRESENTATION TEMPLATE:

ENGINEERING PROJECT

I. PROJECT ID AND TITLE

a. The following should be included:
   i. Project ID *This ID will be assigned by zFairs*
   ii. Project Title

b. **Do NOT include** your name or school.

II. INTRODUCTION WHAT IS YOUR ENGINEERING PROBLEM AND GOAL?

a. What problem were you trying to solve? Include a description of your engineering goal.

b. 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.

c. 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.

III. METHODS EXPLAIN YOUR METHODS AND PROCEDURES FOR BUILDING YOUR DESIGN.

a. 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.

b. If you tested the prototype, what were your testing procedures? What data did you collect and how did you collect that data?

c. **DO NOT include** a separate list of materials.

IV. RESULTS WHAT WERE THE RESULT(S) OF YOUR PROJECT?

a. How did your prototype meet your engineering goal?

b. If you tested the prototype, provide a summary of testing data tables and figures that illustrate your results.

c. Include relevant statistical analysis of the data.

V. DISCUSSION WHAT IS YOUR INTERPRETATION OF THESE RESULTS?

a. What do these results mean? You may compare your results with theories, published data, commonly held beliefs, and/or expected results.

b. Did any questions or problems arise that you were not expecting? Were these problems caused by uncontrolled events? How did you address these?

c. How is your prototype an improvement or advancement over what is currently available?

VI. CONCLUSIONS WHAT CONCLUSIONS DID YOU REACH?

a. Did your project turn out as you expected?

b. What application(s) do you see for your work?

VII. REFERENCES

a. This section should not exceed one page. Limit your list to the most important references.

b. List the references/documentation used which were not of your own creation (i.e., books, journal articles).

PROJECT PRESENTATION TEMPLATE:

MATH & COMPUTER SCIENCE

I. PROJECT ID AND TITLE

a. The following should be included:
   i. Project ID *This ID will be assigned by zFairs*
   ii. Project Title

b. **Do NOT include** your name or school.

II. INTRODUCTION WHAT IS YOUR RESEARCH QUESTION?

a. Explain what is known or has already been done in your research area. Include a brief review of relevant literature.

c. 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.

III. FRAMEWORK NOTATION AND FRAMEWORK.

a. Introduce the concepts and notation needed to specify your research question, methods, and results precisely.

b. Define relevant terms, and explain prior/background results. (Novel concepts developed as part of your project can be presented here or in Section 4, as appropriate.)

IV. FINDINGS PRESENT YOUR FINDINGS AND SUPPORTING ARGUMENTS.

a. What did you discover and/or prove? Describe your result(s) in detail. If possible, provide both formal and intuitive/verbal explanations of each major finding.

b. Describe your methods in general terms. Then:
   i. Present rigorous proofs of the theory results – or, if the arguments are long, give sketches of the proofs that explain the main ideas.
   ii. For numerical/statistical results, include tables and figures that illustrate your data. Include relevant statistical analysis. Were any of your results statistically significant? How do you know this?

V. CONCLUSIONS WHAT IS YOUR ASSESSMENT OF YOUR FINDINGS?

a. How do the results address your research question? And how have you advanced our understanding relative to what was already known?

b. Discuss possible limitations. Did any questions or problems arise that you were not expecting? What challenges do you foresee in extending your results further?

c. What application(s), if any, do you see for your work?

VII. REFERENCES

a. This section should not exceed one page. Limit your list to the most important references.

b. List the references/documentation used which were not of your own creation (i.e., books, journal articles).

QUAD CHART INSTRUCTIONS

A "quad chart" is a single page divided into four quadrants providing a high level summary of the project. It is intended to be more visual than detailed in order to quickly introduce your judges to what is important about your project. Follow the model below that corresponds to the Project Presentation template you selected.

a. The Quad Chart should be created so that the entire page is visible at the same time. The page should be created in landscape mode and saved as a pdf.

b. The page background color should be a light color and the text should predominantly be a dark color to support readability.

c. The minimum allowable font size is 14 pt. ***Exception:*** You may use a smaller font size, down to 10 pt., for figure captions or photo credits.

d. All four quadrants of your Quad Chart should each be the same size with a single border line delimiting each, as in the examples below. The Title section should be only as tall as necessary to include your project title and other identifying information (see section on Quad Chart Title).

e. The Quad Chart should include all appropriate photo/chart/graph credits, should NOT include a bibliography, references, or acknowledgements, and must adhere to all Display & Safety rules.

SCIENCE PROJECT QUAD CHART

SCIENCE PROJECT QUAD CHART TITLE	PROJECT ID #
Q1: SCIENTIFIC QUESTIONS • • • • IMAGE CREDIT	**Q3: DATA ANALYSIS & RESULTS** • • • • DATA CHART CREDIT
Q2: METHODOLOGY IMAGE CREDIT • • • • • •	**Q4: INTERPRETATION & CONCLUSIONS** • • • •

Additions noted in the Science Quad Chart also apply to the Engineering and Math & Computer Science Quad Charts.

ENGINEERING PROJECT QUAD CHART

PROJECT QUAD CHART TITLE	PROJECT ID #
Q1: ENGINEERING PROBLEM & PROJECT OBJECTIVES	Q3: DATA ANALYSIS & RESULTS
Q2: PROJECT DESIGN	Q4: INTERPRETATION & CONCLUSIONS

MATH & COMPUTER SCIENCE PROJECT QUAD CHART

PROJECT QUAD CHART TITLE	PROJECT ID #
Q1: ENGINEERING PROBLEM & PROJECT OBJECTIVES	Q3: DATA ANALYSIS & RESULTS
Q2: PROJECT DESIGN	Q4: INTERPRETATION & CONCLUSIONS

QUAD CHART TITLE

a. In the upper right-hand corner, list the Project ID (**Do NOT include your name or school**).

b. Line one is the title of your project.

QUADRANT 1 RESEARCH QUESTION/ENGINEERING GOAL

a. This should reflect material in #2 of the Project Presentation Template.

b. Please state the research question or engineering problem being addressed.

c. A leading core graphic or visual is encouraged, but not required.

QUADRANT 2 METHODOLOGY/PROJECT DESIGN

a. This should reflect material in #3 of the Project Presentation Template.

b. Please provide a succinct, bulleted summary of the methodology/project design.

QUADRANT 3 DATA ANALYSIS & RESULTS

a. This should reflect material in #4 and 5 of the Project Presentation Template.

b. It is advised that this quadrant should primarily be a graphic representation of relevant data and results.

c. Text should be kept to a minimum.

QUADRANT 4 INTERPRETATION & CONCLUSIONS

a. This should reflect material in #5 and # 6 of the Project Presentation Template.

APPENDIX IV. PROJECT VIDEO INSTRUCTIONS

THE VIDEO IS NOT A REQUIREMENT FOR AzSEF, BUT IS FOR REGENERON ISEF

It is highly recommended that senior division students/teams submit this, but it will not be used in the judging of projects. It will, however, be made available for public viewing once judging is complete.

Record a video (maximum duration 2 minutes) explaining your project. The target audience for this video is members of the general public who will visit the fair on Public Day. While judges will have access to this video, it will not be the focus of their project review.

I. WHAT TO INCLUDE IN YOUR VIDEO

a. Introduce Yourself: State your full name and your city/state/country. Rather than reciting your project title, consider explaining your project in a single sentence.

b. Explain Your Project: Summarize your research into main points:

i. What did you do?

ii. What did you find?

iii. What conclusions did you draw?

c. To note:

i. We recommend that you are prominently displayed in the video (as opposed to your video being predominantly your slides).

ii. You can use any props or visuals you may have that are within the Display & Safety guidelines. Tip: This video is a summary statement about your project and the scientific or engineering design process you followed. It is not intended as an advertisement or sales pitch.

iii. Do not include anyone in your video other than the student researchers of the project.

II. BEST PRACTICES FOR FILMING

These videos will not be edited. To ensure your video is the best representation of your work, please keep these best practices in mind while filming:

a. Please speak in English.

b. Film yourself in a well-lit and non-distracting environment so the viewer's focus stays on you and your work.

c. For best results, film your video horizontally (landscape).

d. Keep the camera still and in place during filming.

e. Speak clearly and loudly enough that the recording is able to pick up every word you say.

f. Avoid long pauses.

g. 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.