

THE NICKLESS FAMILY CHARITABLE FOUNDATION

A.H. Nickless INNOVATION AWARD

2023-2024

COMPETITION

**OFFICIAL RULES AND
REGULATIONS OF THE AWARD**



TABLE OF CONTENTS

About the Award	3
Key Dates and Times.....	3
Award Sponsor and Administrator	4
Prize Awards From the Sponsor	4
Eligibility	4-5
How to Enter the Award Competition.....	5-6
Award Categories.....	6
Award Rules.....	7
Phase One Submission Requirements.....	8
Phase One Judging Criteria	8-9
Phase Two Submission Requirements.....	9-10
Phase Two Judging Criteria	10-11
What Does It Take to Win?	12

ABOUT THE AWARD

The A.H. Nickless Innovation Award is an annual award for high school student teams competing to present innovative projects, products, ideas, problems or opportunities (collectively called project(s) in these rules and regulations).

The purpose of the Award is to:

- Increase the attention that high school students give to Science, Technology, Engineering and Math (STEM) skills by creating an award to showcase their talents in these fields.
- Encourage high school students to think innovatively to build a solution for challenges in our world today and into the future.
- Stimulate high school students to think logically and creatively about marketing and financial elements as they seek to build innovative solutions for the challenges they are addressing.
- Provide financial awards to assist students with future college costs and provide schools with grants to improve equipment, programs and resources for students and teachers.
- Connect business mentors in the Great Lakes Bay Region with high school students participating in the Award competition to allow networking, engagement and real-world experience to influence the thinking of both parties.

KEY DATES AND TIMES

The A.H. Nickless Innovation Award is an annual competition conducted during the school year. The following represents the annual schedule for the Award; all dates and times are subject to change at the discretion of the Nickless Family Charitable Foundation.

AWARD ACTION/DEADLINE	BEGINS	ENDS
Phase One open enrollment period: Teams register for the competition and submit their project abstract	Friday, September 1, 2023	4 p.m. EDT Friday, October 27, 2023
Up to 20 teams chosen to advance to Phase Two of the competition	Late November 2023	
Phase Two \$1,000 participation grants distributed	Late November 2023	
Phase Two project report submission period	Friday, March 22, 2024 (approx.)	4 p.m. EDT Friday, March 29, 2024
Phase Two event: Team presentations, final judging, announcement of winners	8 a.m. to 4 p.m. EDT Saturday, April 20, 2024 Saginaw Valley State University	

AWARD SPONSOR AND ADMINISTRATOR

The Nickless Family Charitable Foundation is the Sponsor of the A.H. Nickless Innovation Award. STEM@SVSU (the STEM Center at Saginaw Valley State University) – 7400 Bay Road, Office GN 138, University Center, MI 48710 – is the Award Administrator. The Sponsor and the Award Administrator shall hereby be collectively referred to as the Award Entities.

The official website for the Award is ahninnovationaward.com.

PRIZE AWARDS FROM THE SPONSOR

CATEGORY	PRIZE AMOUNT FOR STUDENTS	PRIZE AMOUNT FOR THE SCHOOL	TOTAL AWARD
1st Place	\$5,000 per student / \$25,000 team max.	\$20,000	Up to \$45,000
2nd Place	\$2,500 per student / \$12,500 team max.	\$10,000	Up to \$22,500
3rd Place	\$1,000 per student / \$5,000 team max.	\$5,000	Up to \$10,000
Totals	Up to \$42,500	\$35,000	Up to \$77,500

Prize awards for **students** will be in the form of scholarship grants made payable to the student and the educational institution s/he chooses to attend after graduating from high school. These grants will be issued upon the student's graduation from high school and enrollment at a college, university, or trade or vocational school. To receive the scholarship grant funds, the student shall notify the Award Entities of the institution s/he has enrolled to attend. A student may contact the Award Entities if special arrangements are needed for the disbursement of the funds.

Prize awards for **schools** will be granted one week following the conclusion of the Award. Prior to the start of the next Award competition period, the schools will complete a report to the Award Entities regarding how they have used or intend to use the prize grant. A school's failure to submit this report will disqualify any future teams from that school from entering the competition until the report is provided. The report form is available on the Award website (ahninnovationaward.com).

ELIGIBILITY

- The team must consist of two to five student members for the full duration of the competition term. A student member may only be on one team for the Award each year.
- The team must have one team coach (teacher, parent or other adult) who is 19 years of age or older. There is no limit on the number of teams a coach may lead.
- While not required, teams also may have one or more adult mentors to advise them.

- All student members, coaches and mentors must register online each year to be a part of each annual Award competition.
- The coach or members of the team may not be changed without written permission from the Award Entities.
- Student members must be at least 13 years of age and not older than 18 years of age at the start of the registration period. Each student member must have a parent's or legal guardian's permission to register for the Award competition.
- The student members must be enrolled at and attending a public or private/parochial high school in Bay, Midland, Saginaw or Tuscola counties in Michigan. This includes those students who are in high school and are taking college classes through an Early College Program. Students on a team must all attend the same school. While homeschooled students may not form teams of their own, these students are welcome to join a team sponsored by a school. If a homeschooled student is a part of a winning team, the school award will be made to the high school sponsoring the team.
- Schools can have multiple teams enter the competition.
- The student members are encouraged to compete in multiple years as long as they meet the above criteria. If they compete in multiple years with a similar project, there must be significant advancements or changes to the project for it to be accepted.
- The Award Entities reserve the right to verify any eligibility requirements.
- The Award Entities reserve the right to disqualify a team or any member of a team if the team, coach or mentor violates one or more of the rules as determined at the sole discretion of the Award Entities.

HOW TO ENTER THE AWARD COMPETITION

- Sign up to participate at the website (ahninnovationaward.com) and create an individual profile for each member of the team, including the students, coach and mentor(s). Students must request and obtain parental consent before being considered eligible to make any submissions for judging.
- Parental consent will be obtained through an email address for the parent or guardian submitted by the student in his/her registration. The parent or guardian will receive an email with instructions for providing his/her consent.
- Create a team by including the names of the team members from their individual profiles and completing the team registration for the Award. The team registration allows you to submit your project abstract for the Award. You may edit this at any time prior to the submission deadline.
- You must click the box on the team registration stating that you have read – and accept and agree to follow – these Official Rules and Regulations of the Award. The project must follow the legal, technical and creative elements as set forth in these Official Rules and Regulations.
- Your team registration will allow the Award Administrator to provide your team with the full details, official timelines and updates after your registration.

- Each team will submit a two-page description (abstract) of its project idea by the Phase One submission deadline (listed on page 3 of this document). Criteria for the abstract are defined in these Official Rules and Regulations. The teams submitting the top project abstracts (up to 20 teams) as chosen by regional experts will continue in the Award competition and will each be granted \$1,000 to work on their respective projects.
- If a team that has been awarded the \$1,000 participation grant does not complete the Award project, the team must contact the Award Entities to account for the funds disbursed and return any unused funds.
- The Phase Two criteria are defined in these Official Rules and Regulations.
- The teams will submit their completed Phase Two projects via the website by the Phase Two project report submission deadline (listed on page 3 of this document).
- In April of each year, the judges will determine the winners.

AWARD CATEGORIES

The A.H. Nickless Innovation Award allows students to develop their products, ideas and inventions around the following categories. These categories are intentionally broad to allow student teams the freedom to be innovative with their different ideas. These descriptions are for illustrative purposes and are not to be considered as comprehensive.

Categories are:

Energy and the Environment – alternative energy (solar, wind, battery), renewable energy, energy storage, energy efficiency, environmental management, environmental sciences, environmental health, recycling strategies, waste management solutions, water resources and conservation, climate change, etc.

Medicine and Health Services – animal science, plant science, microbiology, cellular and molecular biology, chemistry, food product development, nutrition science, behavioral innovations, exercise equipment, etc.

Engineering – mechanical, electrical, materials, bioengineering, aeronautical, chemical, sound, automotive (including smart cars) and environmental engineering, etc.

Science and Technology – computer science, Earth and planetary science, bioinformatics and genomics, biochemistry, etc.

The Phase Two and winning teams in the competition are selected without regard to the categories, so each category will not necessarily be represented in the various phases, and some may be represented more than once. Teams are encouraged to develop innovative projects and submit them in any one of the aforementioned categories.

AWARD RULES

- All project submissions must be the work of student team members. The coach and mentor(s) may guide the students and answer inquiries, but all writing and work must be done by the students.
- All projects must comply with standards to not copy, plagiarize or use other materials without properly citing the sources utilized.
- All teams are responsible for submitting information prior to the deadlines. **There will be no exceptions for submissions after the deadlines.**
- The Award Entities reserve the right to update the rules at any time and for any reason. The teams registered for the competition will receive notice of any changes.
- The Award Entities reserve the right to publicly use certain team information (the team name; a brief description of the project; the school/town; and the names of the team's coach, mentor[s] and student members) to publicize the Award, and selected submitted information on team members, coaches and mentors may be posted to the website or otherwise used in promotional materials. The Award Entities will not disclose the team's project data or full submission details to the public or to other teams.
- The Award Entities will maintain the data gathered on each student, and this information will not be distributed to any educational or business partner or any other entity seeking information on the Award participants.
- The student team that creates the submission to the competition owns the work on the project for the Award. It is the student team's responsibility to protect its project as well as be responsible for the success or failure of the project should any commercial or business opportunities arise from the work.
- Individuals may not serve as judges for the competition if they have relatives participating in the competition or if they are in any way affiliated with a high school represented in the competition.
- The \$1,000 participation grant should be spent in a manner that supports completion of the project – supplies, equipment, travel for research, etc. Purchase of a team “uniform,” such as lab coats, also is an acceptable use of the funds.
- Each team must document how the \$1,000 participation grant was spent, including any leftover money. Remaining funds do not have to be returned, unless the team withdraws. For teams that complete the competition and have excess funds, this money can be donated to STEM-related projects within the school.

PHASE ONE SUBMISSION REQUIREMENTS

Each team must go online to submit a project abstract via the Award website (ahninnovationaward.com). The two-page project abstract must include:

- A brief overview of your project (150 words or less)
- A description of what problem or opportunity the project solves (250 words or less)
- A statement about how your problem or opportunity is innovative (250 words or less)
- A summary of the key elements or product features describing how your project will be beneficial to the world (250 words or less)

Each project abstract submission will be reviewed and given a score based on its innovation and viability. Up to 20 teams will be selected to participate in Phase Two and will be given instructions on how to complete their project by the Phase Two project report submission deadline (listed on page 3 of this document).

PHASE ONE JUDGING CRITERIA

A panel of experts from the region will conduct the Phase One judging. The top-scoring teams (up to 20 teams) will be selected as the qualifiers for Phase Two. Qualifying teams will be chosen at the sole discretion of the judging panel and the Award Entities. The judging is based on a 100-point system. Judges will base their decision on the team's project abstract.

Submissions will be evaluated in each of these categories.

TABLE FOR JUDGING CRITERIA (SCORES MAY BE BROKEN DOWN TO THE HUNDREDTHS OF A POINT; E.G., 2.25 OR .65 COULD BE A SCORE)	POSSIBLE POINTS	ACTUAL POINTS
Overview of the project	30 points	
How well does the team explain the concepts of the project?	0-10	
How new, unique or important is the project idea?	0-10	
Is the project based on viable technology and principles?	0-10	
What problem or opportunity does the project solve?	30 points	
Does the project or product already exist in the marketplace?	0-10	
What is the need that the project fulfills?	0-10	
What is the market demand for the project, and how does this project meet the demand?	0-10	
What makes the project innovative?	20 points	
Is the project innovative?	0-10	
Is the innovation in:	0-10	
<ul style="list-style-type: none"> • The technology itself, • A combination of existing technologies into a new system, or • Innovative business concepts for existing technologies? 		

(table continues on next page)

What are the key elements or product features, and how is this beneficial to the project and the world?	20 points	
What are the key elements or product features, and have they been described in enough detail?	0-5	
How do the elements or product features benefit the development and design of the project?	0-5	
How is this innovative project beneficial to the world?	0-5	
How well-designed is the proposed project?	0-5	

PHASE TWO SUBMISSION REQUIREMENTS

Each of the teams chosen for Phase Two must submit a detailed project report¹ online by the Phase Two project report submission deadline (listed on page 3 of this document).

¹The report must be submitted as a PDF file.

TIP: To create the best possible project report, read the list of six elements below and the Phase Two judging criteria on pages 10 and 11 to learn about what the judges will be looking for.

The project report should include six key elements as outlined here.

1. Executive Summary: Provide an overview and outline key concepts about the project:

- How the project works
- What external factors impact your project
- How the project is innovative
- How it will benefit the world

2. Statement of Work: Describe what the team is striving for:

- A series of experiments
- A working prototype, a market study or other project features
- Outline the team's goals and the step-by-step plan for attaining them
- Describe what need your project fulfills
- Discuss the market demand for your project and its target audience; identify the potential competitors

3. Research and Explanation of Existing Technology: State existing technology upon which the project is built. Note any competing technologies and explain how this proposed idea is innovative and better than existing technologies that produce similar results. Be able to prove these statements are technically sound using viable technology and scientific principles with research.

4. Financial Plan: Understand the cost of your project.

- Describe how you anticipate gathering funds to create the solution (e.g., private funding, research grants, government grants or venture capital)
- Present a budget listing itemized costs for each item described in the R&D process, including any labor, materials, facilities or other costs
- Describe how the team used the \$1,000 participation grant

5. Timeline: Outline the estimated deadlines the team established for the project, as well as how you achieved your goals.

6. Graphic Concept Representation²: Develop a graphic depiction of your project to explain the idea.

- As part of the graphic representation, describe the various features the team considered in creating the design, and describe how the features work. Potential examples of the graphic concept representation include – but are not limited to – a computer graphic program drawing like Photoshop, a 3D computer model, or one or more photographs of an actual prototype or model.

The team will make a 10-minute presentation to the judges at the Phase Two judging event.

²The graphic concept representation must be submitted online in JPG, GIF, TIFF or PDF format.

PHASE TWO JUDGING CRITERIA

A panel of experts from industry and academia will conduct the judging. The three top-scoring teams will be selected as the winners. Winning teams will be chosen at the sole discretion of the judging panel and the Award Entities. Judging is based on a 100-point system. Judges will base the majority of their decision on the team’s project report and presentation. They also will have access to the team’s submission documents prior to the event.

Submissions will be evaluated in each of these categories.

TABLE FOR JUDGING CRITERIA <small>(SCORES MAY BE BROKEN DOWN TO THE HUNDREDTHS OF A POINT; E.G., 2.25 OR .65 COULD BE A SCORE)</small>	POSSIBLE POINTS	ACTUAL POINTS
Internal Factor Review	15 points	
<ul style="list-style-type: none"> • Competence in explaining how the project works • Technological and scientific viability • Functionality of the project 	0-5 0-5 0-5	
External Factor Review	20 points	
<ul style="list-style-type: none"> • Uniqueness of the project’s core idea • Prior existence in the marketplace • Degree of innovation in the technology (or a combination of existing technologies into a new system, or innovative business concepts for existing technologies) • Demonstrates understanding of how the project fits into one of these three innovation areas 	0-5 0-5 0-5 0-5	
Market	10 points	
<ul style="list-style-type: none"> • Identifies its target market and potential competitors • Demonstrates market demand for the project being proposed 	0-5 0-5	

Financial Plan	10 points	
<ul style="list-style-type: none"> • Understands the cost of creating the project (i.e., are all appropriate costs included for material estimates, R&D, market studies and labor?) • Competence in explaining the funding mechanism 	0-5	
	0-5	
Design	10 points	
<ul style="list-style-type: none"> • Competence of project design • Ability to market and sell 	0-5	
	0-5	
Next-Step Plan Practicality	20 points	
<ul style="list-style-type: none"> • Viability of plan to remain within budget and timeframe • Competence of plan to achieve commercialization or successful grant applications 	0-10	
	0-10	
Overall Presentation of Concept	15 points	
<ul style="list-style-type: none"> • Competence of team presentation • Ability to answer questions from judges and the public • Ability to demonstrate that the idea will be a successful business concept 	0-5	
	0-5	
	0-5	

WHAT DOES IT TAKE TO WIN?

There's no "formula" for winning, and the winning projects so far have been very diverse ... but they *do* have a few things in common. Winning teams tend to have more than two members. It's not impossible for a duo to win, but consider this: Having more team members gives you the opportunity to stack your team with a more diverse talent pool. Think beyond the math and science superstars and consider what your friends and classmates who excel in other subjects could bring to the table. You are being judged on the quality of your presentations and reports, so maybe a student who excels in English and a student on the forensics team would be assets? The marketability of the project also counts, so maybe that BPA or DECA member you know could add an element of business acumen to your team? You get the idea. The bottom line: The winning teams' abstracts and reports are well-written and carefully proofread. Their projects are viable, marketable and well-explained. Their presentations are polished and well-rehearsed.



A.H. NICKLESS
**INNOVATION
AWARD**