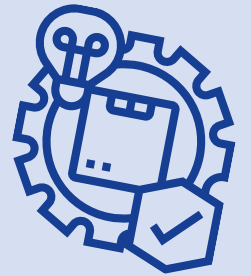# 2023 GLOBAL INNOVATION CHALLENGE™

INVENT FUTURE GLOBAL

Student Guidebook

"Creativity is contagious. Pass it on."

Albert Einstein

2023 GLOBAL INNOVATION CHALLENGE

THE GIC - GLOBAL INNOVATION CHALLENGE happens yearly and gives

K-12 students from around the world a platform to share their solutions, creativity and thinking with a global audience, using Ideas, Apps, or Prototypes.

During special sessions at the October Global Innovation Field Trip, 15/16 October, qualifying Innovation teams will be invited to present to an international Advisory Panel for evaluation and advice.

YOU CAN ENTER:

- ☑ if you are in grade K-12 (or the equivalent)
- ☑ if you register as an individual or as a team of up to three members and
- ☑ if you (or your team) has been endorsed by the IFGO - InventFuture.Global member Organization in your country

2023 GLOBAL INNOVATION CHALLENGE
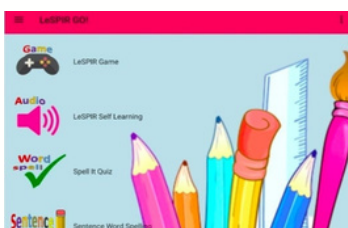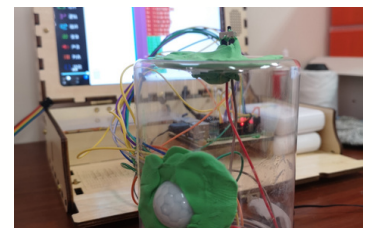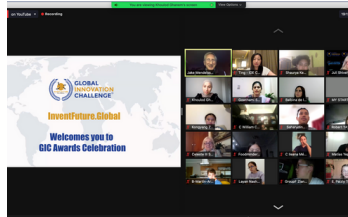
CATEGORIES

IDEA CHALLENGE

APP CHALLENGE

PROTOTYPE CHALLENGE
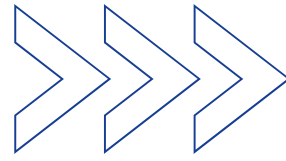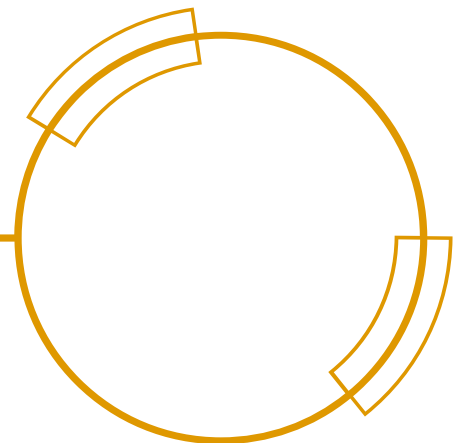
IDEA CHALLENGE

When solving a real-world problem, you will have produced and completed a design and an execution plan showing that solution to your idea or concept or project.

You will have identified, understood, ideated, designed and recorded the whole process in a journal. You can have a drawing, a mockup, or static model showing the parts, though it does not have to work for now.

APP CHALLENGE

When solving a real-world problem you will have created and coded an app or software program. You will have recorded the whole process in a journal and you will have a functioning program even though it may not be complete or work perfectly for now, it must be capable of operation to some degree.
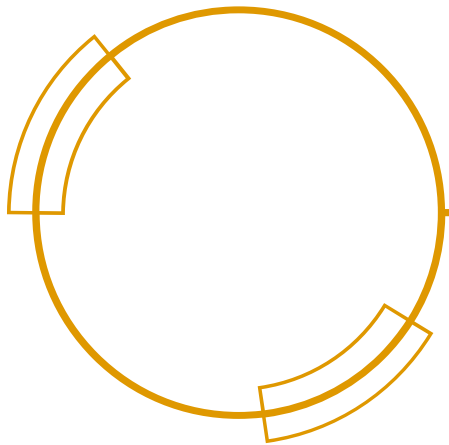
PROTOTYPE CHALLENGE

When solving a real-world problem you will have completed a physical invention prototype or product where the whole process has been recorded in a journal. Even though it may not work perfectly for now, you must be able to operate your functional model in one way or another. It does not have to be the correct size or made of the correct materials.

HOW ▶▶▶ TO ENTER

1 The GIC CHALLENGE is for entrants to develop, test and present an idea, app, or prototype that solves a real-world problem.

DEFINITIONS and EXAMPLES of the three categories:

- **Idea** – An Invention or Innovation idea can be a detailed design of a future App, Prototype, Program or Organization, created with words, pictures, calculations, plans on paper or electronically. There may be a physical display model, but does not need to function for now.
  Examples:
  > design of a device to feed the dog.
  > design of a program to distribute unused food.

- **App** – The innovation consists of an application or software program strictly on a microcontroller, computer, tablet, phone, or other electronic device, that does not extend beyond the device.
  Examples:
  > a software program to operate the device to feed the dog.
  > software to keep track of the quality, quantity and location of unused food.

- **Prototype** – The innovation is a tangible device or product that has been constructed and has some, if not all, of the functions and capabilities that it may need to be used in the real world. It does not have to be the correct size or made of the correct materials and it may not work as well as it should, but it must have the ability to perform at least some of the functions.
  Examples:
  > 'working' model of a device to feed the dog.
  > device to transport food to the people who need it.

SUBMISSION REQUIREMENTS

2

Your submission must:

1. include your full name, gender, age, city, parent name(s), and contact email for each member of your team.
2. include the project information such as the name and category of your entry (idea, app, or prototype), a corresponding description, the problem it solves, and how it works.
3. Your journal, diary or logbook saved as a PDF, Word or JPEG file.
4. include an image or a detailed photo of the prototype, app code screenshots, and a diagram or outline of the idea.
5. include a presentation file for explaining your innovation to the Advisory Panel. This should not have more than 6 pages and could be created using PowerPoint, Keynote or Google Slides, but it should be saved as a PDF or .PPTX file which will then be uploaded as part of your registration.

3

At special sessions during the Global Innovation Field Trip, 15/16 October, qualifying Innovation Teams will be invited to give a live Zoom presentation of their project to an Advisory Panel and their peers for evaluations and commentary
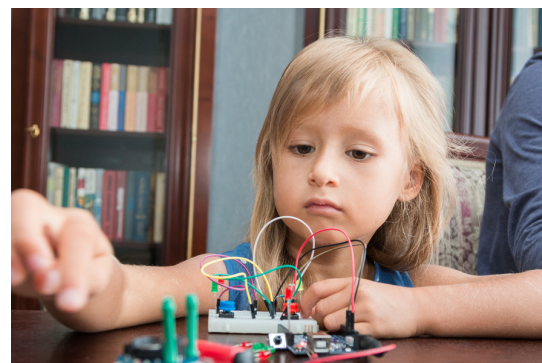
TO-DO LIST

DEVELOP YOUR IDEA

- Keep a journal documenting your innovation journey.
- Brainstorm and write down a clear Problem Statement.
- Conduct research.
- Outline your idea, create your app or build your prototype.
- Design a potential solution to your problem and test it.

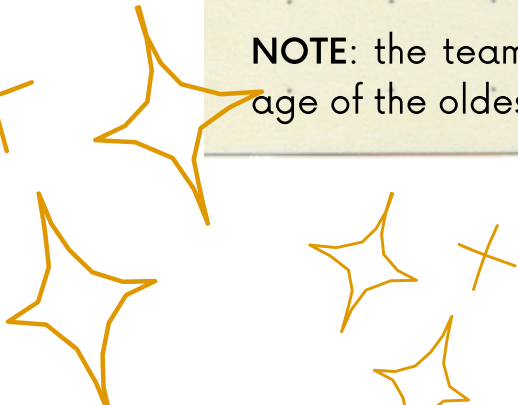### PREPARE TO MARKET YOUR IDEA

- Research prospective markets for your idea, app or prototype.
- Determine why users would want your proposed solution.
- Suggest a name for your solution or project.
- Practice your live presentation showcasing your project.

REGISTER FOR THE GLOBAL INNOVATION CHALLENGE BY:

- Creating a presentation of no more than 6 slides detailing your innovative process as well as proposed solution.
- Creating images for **your idea**: a blueprint, diagram, illustration, or outline saved as a PDF or JPEG; **your app**: screenshots of portions of your code as well as screenshots of your user interface; **your prototype**: pictures that show the critical parts.
- Signing up through your InventFuture.Global Organization and getting the UIC which you will need when you register and upload your materials.
- Submit your registration: **https://inventfuture.global/gic/**

NOTE: the team will be allocated a presentation session based on the age of the oldest member of the group.
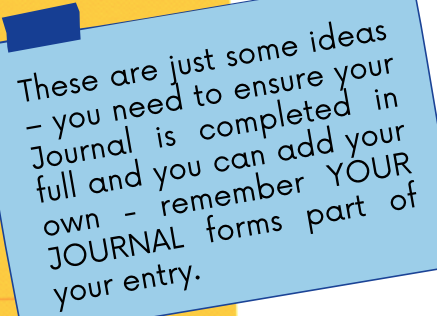
HOW TO PLAN

IMPORTANT!

JOURNAL DIARY LOGBOOK TIPS

Your journal needs to document every aspect of your innovation journey and you need to describe your design process. Each step in the innovation process needs to be clearly identified and recorded – for instance:

- How did you come up with your idea?

- How did you identify which problem to solve?

- How did you come up with a solution?

- What was your goal?

- How did you test or evaluate your idea?

- How did you refine your solution? Iterations?

- POC - Proof of Concept? How did you achieve this?

- What materials did you use?

- Did you spend any money?

- Building/programming a solution?

- What research did you do?

- What resources did you use?

- Who did you ask for help?

- How will you communicate the results of your innovation and solution? How will you present your idea?

These are just some ideas – you need to ensure your Journal is completed in full and you can add your own - remember YOUR JOURNAL forms part of your entry.

DESIGNING YOUR PRESENTATION

Your presentation is your shot at innovation stardom! It is your opportunity to explain what you have achieved. Here are some TIPS, TRICKS and REMINDERS about presentations to help you do your best.

1. Style Guidelines

- Get creative! Your presentation can be in any format ... choose one to suit your solution: videos, drawings, music, photographs, acting, or a mix of all. Add your own ideas. Use your imagination.
- Tell the audience what problem you have solved.
- Have a strong beginning, middle and end. Keep your audience interested.
- Work with a script – this helps to keep the story going and each team member gets a chance to present.

2. Practical Guidelines and Requirements

- Work as a team to identify what is important to have in the presentation. Plan how you will present and who will present each section or slide. The Team Leader should be ready to step in and help at anytime.
- When needed, help your teammate who is talking by demonstrating or showing examples or illustrations.
- At the start of the presentation, the Team Leader should name all the members of the group.
- The presentation should be no more than 3 minutes long.
- All members of a team must have an active speaking part of the presentation. If team members are not physically together, they can be part of the presentation on separate Zoom windows.
- Make sure your presentation includes:
  > The names of all the team members
  > The name of your idea, app or prototype.
  > The problem you want to solve and how you have done this.

2023 GLOBAL
INNOVATION
CHALLENGE

- Be able to answer all of these questions
  > Who has the problem?
  > Who will use your idea?
  > Who is your customer?
  > Who is the end-user?
  > Is the market big enough?
  > What other products similar to yours are already on the market?
- How is your idea different or better?
- Demo your idea. Show it, then tell. Explain how it would work if it were operational.
- Include and pass on any extra or important information the Advisory Panel. It will support you and your team and it help them with their evaluation of your entry.
- For very young innovators, adults are welcome to help prompt as needed.
- Where English is a second language, a translator can be used. The translator cannot give the presentation, but may translate as needed.
- Your manners, your language and the materials you use are on show – be proud to present it all.

③ Practice makes Perfect!
- Practice together or on Zoom as often as you can. Discuss and solve any presentation problems that may come up. You cannot practice too much and every time you do, you'll get better.
- Get friends and relatives to ask you questions about your solution and how you created it, so that you are prepared for any questions the Advisors may ask you.
- Have notes with you to help you remember what to say, but don't just read them. Know what you will be saying. Engage directly with the people you are talking to. Smile. Have fun.
- ... and when you have finished practicing, Practice some more! You'll be glad you did!

EVALUATION RUBRIC

The Advisors will be guided by the following criteria for your entry, so make sure you cover everything in your presentation.
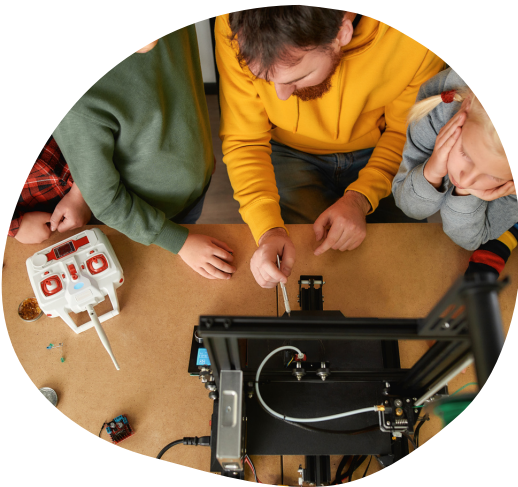

INNOVATION PROCESS

> Identifying and understanding the problem
> Ideating and Brainstorming
> Designing and building
> Testing and refining

COMMUNICATION

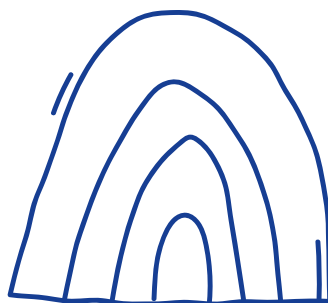> Outline of the Innovation Idea
> Presentation slide set
> Journal, diary or logbook
> Live presentation
> Q&A

INNOVATION IMPACT

> Market Potential
> Originality
> Value Proposition
> Social Value

Expanded descriptions of each category follow.

INNOVATION PROCESS

IDENTIFYING AND UNDERSTANDING THE PROBLEM
- How did you identify the problem?
- What research did you do to understand the problem?
- What other solutions currently exist?
- Who else might experience the same problem?

DESIGNING AND BUILDING
- How did you start the design cycle?
- Were you clear about every process of designing? Could you identify any problems in the design process?
- Why did you choose these materials or coding language? Where did you get any materials or skills used? Or where would you get any materials or skills you may want to use in the future?

IDEATING AND BRAINSTORMING
- What process did you go through to determine the problem to solve?
- How did you break down the problem into sub-questions? What solutions did you provide for each sub-question?

TESTING AND REFINING
- How did you test or evaluate the idea, app, or prototype?
- Did you identify any problems in the testing process? How did you refine your solution?
- How did you get feedback from others on your idea, app, or prototype?
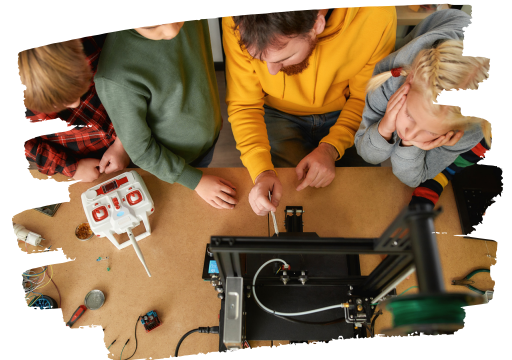
INNOVATION IMPACT

MARKET POTENTIAL

- Did you have a clear understanding of the market? What market research did you do?
- How large and/or viable is the potential market?
- Did you evaluate the cost and value of your idea? Can you discuss this?

ORIGINALITY

- How is the innovation unique, novel, and creative
- To what extent did you contribute to the originality of the idea, app, or prototype?
- How can you distinguish your idea from those of your peers or from prior ideas already available?

VALUE PROPOSITION

- Did you clearly explain why others should use your idea?
- How well did your explanation convince potential consumers and users that your idea would add more value or better solve a problem than others?

SOCIAL VALUE

- How did you consider and address the potential environmental, social, and other non-traditional impacts of your idea?
- To what extent does your idea improve the conditions noted above? To what extent might it minimize any existing adverse impacts?

COMMUNICATION

OUTLINE OF THE IDEA
- Did your prototype, model, code, outline, or diagram clearly communicate the key characteristics of the innovation idea?
- Outside assistance is acceptable as long as you are in charge of the process.

PRESENTATION SLIDE SET
- Did your presentation slide set have strong visual appeal?
- Did it conform to the style of the rest of your presentation?
- Did it all present your design purpose?

JOURNAL DIARY LOGBOOK
- Did you explain the design process from beginning to the end?
- Did you complete your journal pages in a clear, detailed and thorough manner?
- Did you identify anyone who helped?
- Did you identify any materials used and how you obtained them?
- Do you show your research and analysis clearly?

LIVE PRESENTATION
- Was your presentation informative and precise?
- Did you present in a clear, fluent, and confident manner?
- Did you communicate the significant characteristics of your idea that makes it valuable, unique and useable?
- Did you present your idea completely including the problem statement, innovation process, model and how it works?
- Did you demonstrate the originality of your proposed solution?

Q&A
- Did you understand any questions asked and did you answer them accordingly?
- Did your answers support your discussions and other materials presented?
- Was what you presented your own original thinking?
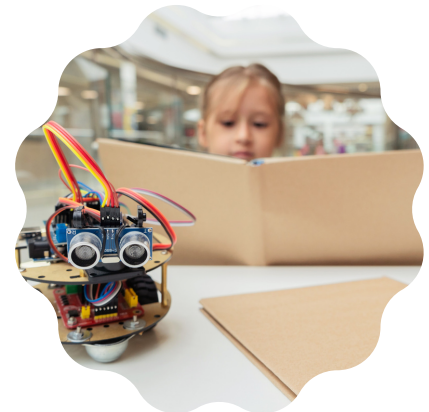
AWARDS & HONORS

SEMI-FINALISTS get the opportunities to achieve:

- **Congratulatory Letter** - Certificate of Achievement

- **Semi-Finalist Recognition** - These innovators have already shown themselves to be among the very best in their countries and are thus honored as Semi-Finalists.

FINALISTS get the opportunities to achieve:

- **Congratulatory Letter** - Certificate of Achievement

- **Finalist Recognition** - Based on the journals, pictures, written presentations, live presentations and Q&A, the team of advisors selected these innovations as Finalists

- **IF.G Awards** - given to Finalists as acknowledgement of special achievement

  - **GIC Process Award** - For giving an excellent presentation demonstrating the methodology and procedure of innovation.
  - **GIC Communications Award** - For a presentation that clearly and productively conveyed the important aspects and qualities of an innovation.
  - **GIC Impact Award** - For an innovation with the most effective solution and the greatest impact on an issue or problem.
  - **Special Awards**
  - **Industry and Professional Awards**

- Post-Event Presentation Opportunities

- Presentation posted on-line

- Innovation World Podcast

- Invitation to professional series

- Presentation at the Global Innovation Field Trip

- Invitation to participate in the International Kids Conference

FAQ

Q: How do I know if there is an IFGO in my area?
A: Visit www.inventfuture.global/gic/

Q: Who can participate in the GIC - Global Innovation Challenge?
A: The GIC is open to all qualified K-12 (or equivalent) innovators across the world. To qualify to participate in the GIC, innovators will have been selected to advance by an InventFuture.Global Member Organization - IFGO. These organizations will provide their top innovators a Unique Identification Code (UIC) which will allow them to register for the Global Innovation Challenge.

Q: What will the Presentation Session process look like?
A: After you have logged on you will be assigned to a breakout room - BOR - where you will join around 10 other entrants and 2 Advisors. Each person/team will have around 6 minutes to present their work, 3 minutes for the project and around 3 minutes for Q&A from the Advisors and other inventors present. The whole presentation process takes around 60 minutes.

Q: Do I need to prepare everything by myself?
A: Yes, you/team are responsible for preparing all content. You may ask someone else to teach you how to do something such use PowerPoint, create a blueprint, or wire a circuit, but, you/team are responsible for actually doing it. You need to acknowledge any help you received in your journal and presentation.

Q: When does registration begin and when must all materials be uploaded to the IF.G website?
A: Registration is NOW open, but ALL materials MUST be uploaded to the IF.G website by 10 September 2023. Please do not miss this deadline!

Q: Is there something specific that I need do when uploading my files?
A: All uploaded files need to be in either .PPTX or PDF format. If you made your presentation using GoogleSlides, do NOT just send the link to the GoogleSlide presentation. You must save the presentation as .PPTX or PDF before you upload it.

Q: Do I have to use PowerPoint to create the presentation?
A: No. You may use Keynote or Google Slides but we are not able to accept presentations created by using Prezi. You need to save your presentation as a .pptx or pdf file so that the Advisor can operate it during the live event.

Q: What do I need to include in my Presentation Slides?
A: The slides should highlight key points of the innovation process as well as your idea (app, or prototype). There should be no more than 6 slides. For those who have participated in previous in-person IF.G events, the slides take the place of the display board. They will be shown during the Live Presentation Session.

TIMELINE

1 February 2023
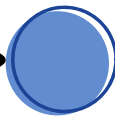Official Start of GIC Program. Students can begin to contact their local InventFuture.Global Organization and get an UIC code

1 March 2023
InventFuture.Global website goes on-line. Students with UIC code can upload their materials

10 September 2023
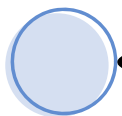Last date to upload GIC materials to IF.G website

International team of judges will evaluate the innovations based on the materials that students have uploaded and then select Finalists to present at GIFT
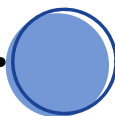
15/16 October 2023
Selected teams will be invited to present their innovations to a live, on-line Advisory Panel during the international Global Innovation Field Trip

22 October 2023
GIC Awards and Honors Celebration Announcement

Mid-November 2023
GIC Special Award winners will be invited to present at the International Kids Conference

2023 GLOBAL INNOVATION CHALLENGE

INVENT FUTURE GLOBAL

IMPORTANT WEBSITES

InventFuture.Global
https://www.inventfuture.global

Global Innovation Challenge
https://www.inventfuture.global/gic/

GIC Information Registration
https://www.inventfuture.global/request/

GIC Material Upload
https://www.inventfuture.global/gic/