



Invent future
Invention Convention



小发明家盛会

IFIC 2020

STUDENT GUIDE

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Intro

Invent Future Invention Convention (IFIC)

Invent Future Invention Convention (IFIC) is the first student invention convention in China. IFIC 2020 is held by IDE Education, China, supported by Hangzhou Low Carbon Science and Technology Museum, Zhejiang Fuxing Sinology Institute, and Shining3D.

IFIC 2020 is consisted by two main components — IFIC Exhibition at Hangzhou Low Carbon Science and Technology Museum from 20 Sep to 18 Oct 2020, and IFIC online Invention Convention from 11-18 Oct 2020, which is powered by InventFuture.Global (IF.G). Student inventors in and out of China are invited to IFIC to show their world changing inventions. Judges from China, United States, United Kingdom, Canada, Chile, Singapore, and Indonesia will be invited to join IFIC 2020's judging.

IDE Education, China

IDE Education is the affiliate member of Invention Convention Coalition, and the founding member of InventFuture.Global program. IDE works to make STEM + Invention + Entrepreneurship (STEMIE) learning and global communication accessible to educators and students. IDE powers events like Invent Future Invention Convention in China, curriculum and professional development to help learners accelerate an innovative mindset and be better prepared for the workplaces of today and tomorrow.

Awards

Award Category

- Most Innovative Invention Award
- Serial Inventor Award
- Industry Awards

Industry Awards are presented by

- Mentor A Siemens Business
- Leedarson
- Shining3D

Participating student inventors will be recognized as

- IFIC Recognized Inventor
- InventFuture.Global Recognized Innovator



20 SEP 2020

Registration Deadline

20 SEP – 18 OCT 2020

IFIC 2020 Exhibition

(Hangzhou Low Carbon Science and Technology Museum, China)

11 OCT 2020

Opening

IFIC-GIFT Seminar

IFIC-GIFT Inventor Talk

12-15 OCT 2020

Inventor Meet Global Online Activity

16-17 OCT 2020

Judging Day

18 OCT 2020

Award Ceremony

Global Citizen Party

IFIC 2020 is an Exciting Online Convention

Most of IFIC2020 activities will be held online, including judging circles, seminars, opening and award ceremony, Inventor Meet activity among worldwide students, and Global Citizen Party for international participants.

IFIC 2020 Exhibition

The only NOT online activity in IFIC 2020 event, is IFIC 2020 Exhibition. To celebrate student inventors' innovative achievements, inventions from all student participants will be exhibited on IFIC 2020 Exhibition at Hangzhou Low Carbon Science and Technology Museum, China from mid September 2020, including inventions from international student inventors. The exhibition will last for one month. The public will visit the exhibition at the museum and vote for their favorite invention.

IFIC-GIFT Seminar and Inventor Talk

11 Oct 2020, working with GIFT, educators from IFIC 2020 will present invention education experiences and problems they met on the online seminar held by IFIC and Global Innovation Field Trip (GIFT). IFIC student participants will present their inventing journey in IFIC-GIFT Inventor Talk, and to help more people with their inventions!

Inventor Meet (Global Online Activity)

12 – 15 Oct 2020, student inventors from different countries will be mixed in groups, working together to complete secret challenges virtually. These challenges are from an existing or solved problems in real world companies. It is a great collaboration among worldwide student inventors to solve real world problems.

IFIC Judging Day

IFIC is powered by the global educational program InventFuture.Global (IF.G). Worldwide judges and student inventors are invited by IF.G to participate in IFIC 2020. International judging circle, which is IF.G judging circle, is open to students both inside and outside China. On IFIC Judging Day, 16-17 Oct, international and Chinese students will pitch online with each other at the international judging circles according to different age ranges.

Award Ceremony and Global Inventor Party

Award Ceremony will be held online on 18 Oct. Winners of all awards will be announced at Award Ceremony. International students will be invited to Global Citizen Party, together with Chinese students, to share each others own culture and tradition, to understand the similarities and differences of different cultures on this blue planet.

Rules

Eligibility and Student Registration

IFIC 2020 is invitation-based event with limited seats. Students from age 5-18 in InventFuture.Global worldwide representative's program are eligible to register. This registration is open to either individual participants or teams.

Student participants should finish registration with following information before **20 SEP 2020** at <https://www.inventfuture.org/register/ifg-jc-registration/>

- Participant's information, includes name, gender, grade, country, city, parent name, and Email.
- Project information, includes the name of your invention, description, the problem it solves, how your invention works.
- Photo of the inventor or the team. All team members' faces should be clearly shown.
- Photo of the invention prototype. The invention should be either new and original or an innovation based on something that already exists.
- ppt(x) or pdf file of the presentation slides. The slides should highlight key points of the invention process. Presentation slides must be in English, no more than 6 pages. It will be presented during the pitch.
- Optionally, you may upload inventor's log pdf file, recording the journey of your invention process. (The language of the log should be English.)

Judging Process

The whole online judging circle process will be 70-100 minutes long for students, including warm-up activities, online judging circle, and a slot for student discussion. Each student or team will have three minutes to pitch their invention, and five minutes to answer questions, from both peers and judges.

After all the projects are presented, judges will evaluate the performance of each project according to the judging criteria.

Usually less than 10 projects, 3 judges, and 2 moderators are in a single online judging circle.

70 - 100 minutes

○ Warm up

Equipment Test
Self-Introduction

○ Judging Circle

Pitch and Q&A

○ Free Discussion

Live Pitch

All pitches must include Introduction: invention name, inventor's name, grade, and country.

Pitches should no longer than 3 minutes. The pitch should talk about all invention process elements outlined in the criteria.

The pitch must address the originality to your invention and the research you have done to discover what makes your invention an original or an improvement on a product that already exists.

Student/team will use and reference presentation slides and prototype.

Presentation Slides

The presentation slides should be within 6 pages, containing the key steps of the inventing process. The language of the presentation slides must be ENGLISH.

The presentation slides MUST have:

- The name of the invention
- Student(s) Name(s)
- Student(s) Grade(s)
- Country

Inventor's Log

The logbook can contain more information and sections, but as a minimum it should address each of the Stages of Invention.

- Identifying the Problem
- Understanding the Goal
- Identifying a Solution
- Designing a Solution
- Building a Device
- Testing & Evaluating the Device
- Communicating the Results

Teams

Each student can join the event with only one identity: either as an individual, or a member of a team. No students can join both as an individual and in a team.

- Teams should consist no more than 4 students.
- A team needs to upload only one presentation slide set for their project.
- All team members are required to join the online judging circle, preferably from the same location.
- Teams will participate in the same judging process as individuals. Team can either choose one member to give the pitch, or do the pitch together by sharing different parts.
- Judges can designate a team member to answer questions during the Q&A.

Language

If student/team's native language is not English. A translator can be invited by the student/team to help translate the questions during the Q&A. Student/team can also ask moderators or judges in the judging circle to help with the translation if they are from same country and have same native language.

- Student/team must do the pitch by themselves in English.
- Only the question in the judging circle is allowed to be translated. Student/team MUST answer all questions in English.

Rubric

Invention Process	Description
Identifying and Understanding	<p>The identifying stage is where inventors seek or find a problem that they want to solve. It is important to ask inventors how they uncovered this problem and who else might experience the same problem and to what end.</p> <p>Understanding a problem refers to the research that an inventor has done to understand what else exists to solve the problem as well as the full impact the problem may have on others.</p>
Ideating	<p>Ideating refers to the brainstorming or imagination stage that a student goes through to generate original ideas and begin to develop idea/s into specific requirements to determine the likelihood of success.</p>
Designing & Building	<p>Designing an invention or a prototype requires critical-thinking skills; students should be able to articulate how they wanted the invention to work and why they chose the materials they did for executing their invention.</p>
Testing & Refining	<p>The key to this step is iterations, improvements and perseverance. The best inventors know that the first build is often not the best and seek feedback through testing and refine their design accordingly.</p>
Invention Impact	Description
Market and Value	<p>How large and/or viable is the potential market? To what extent did inventors research the market?</p> <p>Do inventors clearly summarize why a consumer or user should buy or use their invention? This statement convinces a potential (or future) consumer that one particular product or service will add more value or better solve a problem than other similar offerings.</p> <p>Do inventors consider the potential environmental, societal, and other impacts of the invention? How does the invention improve environmental & social conditions or have a minimal adverse impact?</p>

Invention Impact

Description

Originality

Is the invention unique, novel, and creative? Is it distinguishable from prior inventions and those of his/her peers? To what extent inventors contribute to the originality of their invention? Do inventors clearly state the advance and value of the invention based on their research on similar existing inventions?

Communication

Description

Prototype or Model

Does the prototype clearly communicate the key characteristics that make the invention valuable, usable and unique?
Note: Outside assistance and collaboration is acceptable as long as the student is driving the process and documents outside help. Students should only do what they can do safely. Credit should be given where assistance was received.

Presentation Slide Set

- Does the presentation slide set have strong visual appeal?
- Is the slides set eye-catching with color, pictures, graphs and variety?
- Is grammar, spelling and punctuation correct?

Does the slide communicate significant aspects of the invention process from identifying to ideating?

Live Pitch and Q&A

The best pitches include the following:

- Introduction: solution name, inventor's name, country, grade, etc.
- An overview of all invention process elements outlined in the criteria (above).
- Use and reference communication elements (including presentation slide, prototype, and/or logbook).
- Explanation of origination of the idea (helping to assess the originality).
- Other recommendations include:
 - Courteous and professional to peers in judging circle.
 - Concise, appropriate pace, clearly heard and understood.
 - Professional posture.
 - Enthusiasm, passion, inflection, appropriate body language.
- No reading from cue cards; explanation in own words.
- No longer than 3 minutes.

Helpful Hints

Live Pitch

- Begin with introductions. Each student should introduce name, grade, country, and name of the invention.
- Your pitch must address the originality of your invention.
- Be sure to present all steps of the inventing process that you went through while creating your invention. What challenges did you encounter? What changes did you make and why? Read the rubric carefully to make sure you address all criteria.

You may also want to talk about:

- How did you come up with the idea for this invention?
- What people, situations, or conditions does this problem affect?
- How did you think up your solution to the problem?
- Where did you get the materials for the invention?
- Who helped you build the invention and what did they help you do?
- Are there other better materials you could have used that would improve the invention?
- Who has used your invention and what did they think about it?
- What changes might you want to make to your invention?

In the pitch, you can show materials you think might be helpful in your pitch.

- When you show the material to judges, make sure it is in the center of ZOOM window.
- If you want to show details of the material, you can move it closer to your camera so that it will be shown clearly.

In the pitch, be sure you use:

- Courteous and professional language to peers in judging circle.
- Concise, appropriate pace, clearly heard and understood.

Judge Frequently asked questions during Q&A

- What problem are you trying to solve with this invention?
- How does your invention work?
- Did you make any changes to your invention? Why did you make those changes?
- Who do you think will use this invention?
- Does your invention help the world or just a few people?
- What impact on the environment do you think your invention will have?

Presentation Slides

You might also want to add some of the following:

- Images showing your building or testing.
- How the invention was made.
- How the invention will be used.
- Text which supports and explains any pictures, drawing, charts, etc.
- What scientific principles were used in your invention?
- What engineering disciplines were used in your invention?
- Testimonials from users, research results.
- Any other information about the invention that will help explain it, what it does, or why it is good.

When preparing your slides:

- You can take pictures of your drawing, writing, and place the photos into the slides.
- If you are new to slide making software, you can ask your teacher or parents to help you, and learn from them.
- You can create your presentation slide using any software you are used to. When submitting your project information to IFG website, you will be required to upload either a powerpoint (.pptx) or pdf (.pdf) file of your presentation slides.

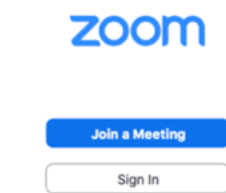
In your slides, be sure you use:

- Fonts that are readable (style, size, color)
- Colors that look good together
- Shapes that are the right size
- Correct grammar and spelling
- Proper punctuation
- Professional posture.
- Enthusiasm, passion, inflection, appropriate body language.

How to Join the Online Event?

Download ZOOM software (Zoom Client for Meetings), install it in your computer. Download link: <https://zoom.us/download> (Select Zoom Client for Meetings)

To join a ZOOM meeting,



1. Open ZOOM, click "Join a Meeting"

Verify Phone Number

 The image shows a "Verify Phone Number" form. It has a dropdown menu for the country code (currently showing +86) and a text input field for the phone number. Below that is a text input field for a 6-digit code and a "Send Code" button. At the bottom is a "Verify" button.

3. You will be asked to input your mobile number for a 6-digit code, if you are not logged in as a ZOOM user.

 The image shows a "Join Meeting" form. It has a dropdown menu for "Meeting ID or Personal Link Name". Below that is a text input field for "Your Name". There are three checkboxes: "Remember my name for future meetings" (checked), "Don't connect to audio" (unchecked), and "Turn off my video" (checked). At the bottom right are "Cancel" and "Join" buttons.

2. Type in ZOOM meeting ID, and your full name. And later you will be asked to input meeting password.

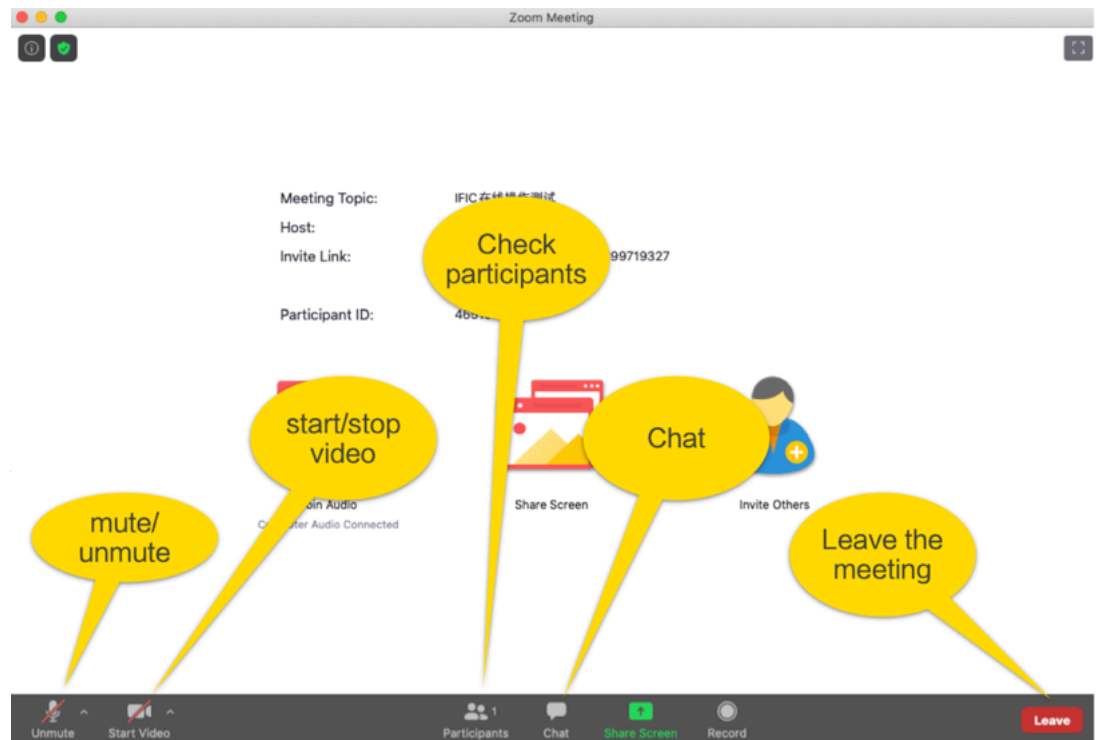
 The image shows two buttons for audio selection: "Phone Call" and "Computer Audio". Below them is a blue button labeled "Join With Computer Audio" and a link that says "Test Speaker and Microphone".

4. Select "Join with Computer Audio" to join the meeting.

You will receive the ZOOM meeting ID and password of your online judging circle before the event. Make sure:

- You have an appropriate background. People will be able to see what is behind you and it should not be distracting or inappropriate.
- Pick a well lighting and quiet place without external noise or sounds. Lighting should be facing you and not behind you.
- You have a stable internet connection. If possible, try to get a stronger WIFI signal and faster WIFI connection.
- Log in at least 15 minutes early.
- Use computer with a camera to connect, do not use mobile phone.
- Use an external microphone if possible. So that to ensure a better voice quality.
- Ask an adult by your side, in case you need support to use the computer and ZOOM.

Useful Zoom Functions



- **Mute / unmute:** moderator may ask you to mute/unmute yourself when other students are presenting, or unmute yourself when you are going to pitch.
- **Start video / stop video:** moderator may ask you to start/stop your video when judging circle begins.
- **See participants:** you will see all participants in the judging circle, including moderators, judges, and other student participants.
- **Chat:** you can leave your questions or messages in chat window when others are pitching. You can also use chat function to inform moderators if you have any questions.
- **Leave the meeting:** when the judging circle is over, use this button to leave the event.

Frequently Asked Questions

Q: Can I use a script to pitch during online Judging Circle?

A: While you may use notecards or a script in your pitch, a full script is definitely NOT recommended. You can use your presentation slides as a guide.

Q: My native language is not English, can I have a translator sit beside me during my pitch?

A: Yes, you can have a translator to help translate questions from the judging circle. But you have to finish your own pitch by yourself in English, and you have to answer all questions by yourself. Translators are not allowed to answer questions or translate your answers. The time cost on translation will also be included in 5 minute Q&A.

Q: What would the judging look like?

A: 2 moderators, at most 10 projects in same grade range, and 3 judges are in the same judging circle. The process of judging circle usually is 70-100 minutes long, including warm up activity, judging, and student free discussion. Student will give a 3 minute pitch , and use another 5 minutes to answer questions from judges and other students in the same judging circle.

Q: I have finished my registration, how can I join the event?

A: After you submitted all required project material, IFIC committee will review all these materials. After that, you will receive an confirmation email on how to join IFIC2020 various exciting activities.

Q: Who will control my slide show when I am doing the pitch?

A: The moderator will share your slides when it is your turn to present. You can ask the moderator to go next/previous page during the process.

Q: Do I need to prepare the slides completed by myself? What if I don't know how to make a slides?

A: You are supposed to prepare all the CONTENT in the slides that you will use in the pitch (e.g., texts, photos, drawings, design charts etc.). However, in case you do not know how to create a slide set, you can ask for help from your teacher or parents. The skills needed for PowerPoint or other kind of slides making is not a must in the judging criteria.

Q: I don't have Microsoft PowerPoint, can I use google slide?

A: Yes, you can use any software or online platform to complete your slides. After you finished your slides, you need to export your slides to pptx or pdf file which will be uploaded to event information form.