

Tech Day Student Handbook

Introduction

Date: 2025.8.31

Time: 8:00 - 18:50

Location: Tsinghua International School Daoxiang Lake

Who can join: Middle school (G6 - G8) students

The Tech Day is an event that aims to gather students with a passion in technology, hoping to promote an engineering spirit, help students meet friends of the same hobbies, and provide them an opportunity to develop new capabilities. In this event, students will be divided into groups of three and produce an original model (which is not limited to a physical model) on a chosen topic. They will also attend workshops to study STEAM-related skills. In the Tech Fair by the end of the day, they will present their idea on the topic as well as their model to peers and judges, who will rate the designs and give out awards. This event is initialized and organized by a group of high school students driven by their enthusiasm in technology.

Schedule

Time	Event	Location
8:00 - 8:30	Sign-In	In-front of Shuimu Theater
8:30 - 9:10	Opening Ceremony	Blackbox Theater
9:15 - 9:45	Meet the groupmates, decide topic & workshops	Outside of group classrooms
9:50 - 10:30	Workshop #1	Workshop classrooms
10:30 - 11:50	Work Time #1	Group Classrooms
11:50 - 12:20	Lunch	School cafeteria
12:20 - 13:00	Workshop #2	Workshop classrooms
13:10 - 13:50	Workshop #3	Workshop classrooms
13:45 - 17:00	Work Time #2	Group classrooms
17:00 - 18:00	Tech Fair & Presentations	Basement floor of the B Building
18:00 - 18:30	Dinner	School cafeteria
18:30 - 18:50	Closing Ceremony	Blackbox Theater

Topics

Name	Description
Communication 4.0	Design a future communication tool.
Transportation 4.0	Design a future vehicle/ transportation system.
Build the Cycle	Design a recycle system for bioCure Craftingwaste, industrial waste, etc.
Time Capsule	Students decide how they prefer themselves/ this era to be remembered and create a time capsule.
Signal Master	Design smart solutions for daily life.
Eco-Warrior	Develop technology that solves environmental problems.
Cure Crafting	Make tech that improves mental or physical health.

Workshops

Name	Description	Teacher	Location
Laser-Cutter	Learn the use of a laser-cutter and AutoCAD fundamentals.	Della Gong & Bruce Wang	B5xx (pending)
Internet of Things	Build an Arduino project to learn the use of Mixly and a few hardwares.	Mr. Lynn Liu	B106
3D Designing & Printing	Learn to use the basic tools in SketchUp.	Alan Xu	C215 & BB06
RoboMaster	Explore the world of RoboMaster.	Mr. Edward Wang	B420
Robotic Arm	Get introduced to robotic arms and its control.	AK Yang	B224 (pending)

(Note: The Robotic Arm workshop is only available in the block Workshop #1.)

Awards

Title	Description
Future Visionary Award	For the project that shows the most futuristic or bold idea.
Problem Solver Award	For the team that best addresses a real-world problem with a practical solution.
User-Friendly Design Award	For the product with the easiest and most intuitive user experience (UX).
Best Prototype Award	For the most complete and functional working prototype.
Technical Mastery Award	For outstanding use of advanced technical skills (coding, electronics, etc.).
Best Presentation Award	For the most clear, engaging, and confident project presentation.
Most Marketable Idea Award	For the project most likely to succeed as a real business product.
Social Impact Award	For the project that could make a positive difference in society or communities.
Funniest Invention Award	For the most entertaining or humorously creative project idea.
Young Innovator Award	Special prize for the youngest or least experienced team that shows great potential.
Resilience Award	For a team that overcame the most difficulties or failures during the project.
Best Aesthetic Design Award	For the project that looks the most beautiful or visually impressive.
Surprise Award	A mystery award the judges can freely give for any special reason they notice.
Eco-Conscious Award	For the project with the best environmental or

	sustainability focus.
Collaboration Spirit Award	For the team that demonstrated exceptional teamwork, sharing, and group spirit.
People's Choice Award	For the team that got the most votes in the Tech Fair.

Achievements

Students may unlock special achievements after their work is done!

Name	Description (locked)
From Waste to Wonder	
Precision Unlocked	
Hot Stuff Coming Through	
Break the Mold	
Manual Mastery	
Made of Math	
A Matter of Team Work	

Presentation Criteria

Students are free to choose their form of presentation and whether to use any kind of visual aid or not (although it is recommended).

1. Innovation & Originality (30%)

- Is the idea truly unique, or does it improve existing tech in a novel way?
- Does it solve a real-world problem in a way that hasn't been done before?
- Bonus points for "Why didn't I think of that?" factor.

2. Technical Feasibility (25%)

- Is the proposed model realistically buildable with current or near-future tech?

- Does the team understand the engineering/science behind their idea?
- Are there clear steps for prototyping/testing?

3. Impact & Usefulness (20%)

- Does this tech benefit society, the environment, or a specific group?
- Is there a target audience that would adopt it?
- Potential for scaling up (e.g., from lab to market).

4. Presentation & Clarity (15%)

- Can the team explain their idea clearly in a short time?
- Did they use visuals, demos, or prototypes effectively?
- Is the pitch engaging (storytelling, humor, passion)?

5. Creativity in Design (10%)

- Does the model/prototype look well-thought-out?
- Aesthetic appeal, user-friendliness, or clever engineering hacks.
- Bonus for unexpected but functional designs.

What to Bring

- Laptop: for coding, designing, researching, or presenting
 - It is suggested that students who are interested in certain workshops download the required applications in advance (e.g. students who want to join the 3D-designing workshop can download SketchUp beforehand)
- Paper & Pen: for brainstorming or recording
 - Students may request paper & pen from staff members
- Phone: for communication, receiving announcements, etc.
- Bring any special materials or sensors that might come into need e.g. an Arduino kit
 - Or request extra materials from staff members, but we can't guarantee we have them

Other Notes

- There will be special souvenirs for students who unlocks special achievements
- Lunch and dinner will be provided by the school cafeteria
- The objects in the classrooms are not to be moved or used freely; students may ask staff members if it is appropriate to use certain tools in the room
- Students are encouraged to take pictures during the event and send them to this email address: H2028045@thisdl.cn; we appreciate your help!

If you have any further questions, please contact us via this email: H2028045@thisdl.cn