IDE SERIES

2026 SINGAPORE

IDE MAKER

Competition Manual

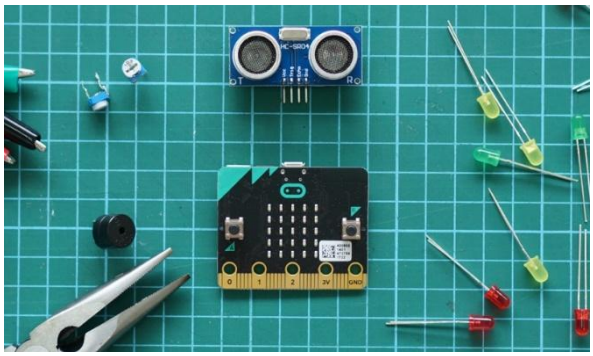
Updated: 11 Feb 2026

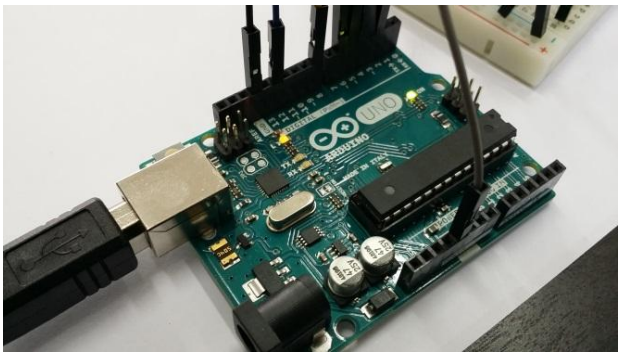
Event Organiser:

NULLSPACE®

vm EDUCATION

IDE MAKER





Scope of Competition

IDE Maker is a competition aimed at encouraging a new generation of makers to solve problems through technology. Students will be graded based on the novelty, usefulness and effectiveness of their implemented solutions.

Challenge Theme for 2026

IDE is partnering with World Robot Olympiad (WRO) Singapore for this year's competition theme: "**Robots Meet Culture**".

There are three areas within this theme:
- *Area 1: Protecting, Preserving & Sharing Cultural Heritage*
- *Area 2: Co-Creation: Humans, Robots & AI*
- *Area 3: Experiencing Art and History with Robots*

The team will design and build a robot that advances the world of art and culture. You will need to think about questions like: How can technology boost creativity and empower artists? How can robots help save and share history and culture? What new experiences or artworks can be discovered through robotics?

Note:

- Participation in IDE Maker 2026 is not required for participation in WRO Singapore 2026.
- Participation in IDE Maker 2026 will have no direct contribution to your scores at WRO Singapore 2026.

Platforms you can use:

- Arduino
- micro:bit
- LEGO® NXT/EV3/WeDo2.0/SPIKE Prime/SPIKE Essentials
- Any other appropriate microcontroller system

Students may use a combination of these platforms to build their prototypes and are encouraged to fabricate parts of their prototype on their own using Wood/Acrylic/Metal/Recycled Materials/Cardboard/3D printing.

Project Documentation (29 May 2026)

Teams are required to submit a project documentation by sending it to sg@ideseries.org by **29 May 2026, 5pm**. Teams can download the project documentation template from https://ideseries.org/ide2026.

Preliminary Round (1 to 5 June 2026)

Teams are to design and prototype a device as a solution to the challenge theme. Teams will present their project during an online preliminary round (**1 to 5 June 2026**) through Zoom with their working prototype. Presentation should include:

- Introduction of team members
- Project topic or problem your team is trying to tackle
- Project idea
- Main hardware components
- Programming logic / flowchart
- Demonstration of project

Shortlisted finalist teams will be invited to the competition event day to set up their booths for final presentation.

Competition Finals (2 to 3 July 2026)

Shortlisted finalist teams will set up their project booths during the competition day. Each team is allocated 7 minutes to present their project to the judges, plus 3 minutes of Q&A, during which they will be expected to perform a live show-and-tell demonstration of their prototype. Teams may use a combination of a slide show and posters or other presentation aids.

Judging Rubrics

Teams will be assessed based on the following criteria:

1. Novelty & Innovation
2. Design and Aesthetics
3. Usefulness & Impact Factor
4. Cost Effectiveness
5. Presentation
6. Relevance to Theme
7. Quality of Implementation
8. Popular Vote

Rubric 1 to 7 will be based on scoring by the judging panel, while Rubric 8 will be determined by popular vote based on public voting on the competition event day. Primary and Secondary teams will be judged within their own categories.

COMPETITION RULES

Rules and Regulations

General:

1. Hardware:
    a. Any Arduino board model (e.g. Uno, Mega 2560, Leonardo, Mini, Nano etc.) and custom Arduino boards (e.g. Maker UNO)
    b. BBC micro:bit
    c. Any other suitable microcontroller platform
2. Programming: No limitation on software or programming language.
3. Additional shields, add-on hardware components are allowed.
4. Teams are to prepare their own presentation materials for the presentation on competition day.
5. Project prototype must be physically demonstrated to judges during the presentation time.