



GLOBAL
ROBOTICS
CHALLENGE

 RULE BOOK 2026

GLOBAL ROBOTICS CHALLENGE

SCRATCH CHALLENGE



Smart Programmers
CHALLENGE



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1. Technical Introduction :

The Scratch Challenge is an educational and creative software competition aimed at young age groups, where the Scratch 3 programming environment is used that provides a fun and easy-to-understand visual style to learn the principles of programming.

The challenge aims to:

- Develop logical thinking by designing orderly orders and solutions.
- Boost creativity by building interactive games, stories, and simple real-life projects.
- Develop problem-solving skills using blocks instead of complex text codes.
- Encourage teamwork and communication skills among students through joint projects.

During the competition, participants are asked to implement various projects such as:

- Design simple educational games.
- Create interactive stories with a purpose.
- Build projects that raise awareness of life issues (such as health or the environment) in fun ways.

The competition combines fun and learning, and is a gateway for young students to enter the world of programming and technology in a practical and exciting way.

2. Team Composition :

- **Number of team members:** 2 to 4 Students, guided by a Coach.
- **Age Group:**
 1. **Discover** Category:
 - ❖ **Ages: 5 to 7 years.**
 2. **Junior** Category :
 - ❖ **Ages: 8 to 11 years.**

3. General Rules:

- Each participant must bring their own laptop.
- The code/task must be delivered before the specified time (countdown).
- It is strictly forbidden to use the internet during the time of the competition.
- After each round, the team presents their work to the judging panel.
- The judging panel reviews the submitted code manually and evaluates it according to specific criteria.
- Before the start of each round, **15 minutes** will be set aside to explain the challenge and answer the teams' questions.
- Any contact with people outside the team during the competition time is strictly prohibited.
- Any intervention or assistance from coaches/supervisors during the time of the rounds will result in a first warning, and its repetition may result in the team being disqualified from the competition.

4. Rules for Scratch Programmers :

- **Age group allowed to participate:** 5 to 11 years old.
- Must be committed to using Scratch 3 only.
- The competition consists of **3 rounds**, and each round is a different challenge explained by the moderator during the **15 minutes** allotted before the start.
- **Duration of each round:** one **hour** only.
- The challenges are broken down by age group:
- Each **mission** must be completed on time.
 - ❖ Discover Mission: Create a game or short story.
 - ❖ Junior Mission: Create a complete game with clear rules.

5. Technical Requirements:

- **Discover level :**
 - ❖ The participant must possess basic knowledge of:
 - **Events** : such as "When you click the green flag" or press a key to start the interaction.
 - **Conditions** : such as "If he touches the edge" or "If the points = 10".
 - **Sprites** : How to add and animate characters within a project.
 - **Inputs**: Interacting with the project using a keyboard or mouse.
 - ❖ **Type of Challenges:**
 - Create a simple story.
 - Short game with basic action and interaction.

- **Junior Level:**

- ❖ The participant must possess advanced knowledge of:

- **Variables:** To store points, time, or any other in-game data.
- **Conditions** : such as "If he touches the edge" or "If the points = 10".
- **Loops** : For repeated control of game logic.
- **Functions /My Blocks:** Create reusable special commands.
- **Events:** The interaction between more than one character at the same time.
- **Sprites** : Advanced customization and control of movements and interactions.

- ❖ **Type of Challenges:**

- Designing an integrated game with clear rules (Game Rules).
- Use of the Lives Points system .

6. Guiding Examples :

- **Discover level:**

- ❖ **Game:** Catch the Mouse

- ❖ **Description:** The player controls a cat trying to catch a fast-moving mouse.

- ❖ **Objective:** Move the cat left and right to catch up with the mouse. When you touch the mouse, a success sound is made and a message "Well done!" appears.

- ❖ **Rules of the game:**

- The cat moves with arrows.
- The mouse moves randomly.
- Win when you touch the mouse and a success + message appears "Well done!".

- ❖ **Expected Game:**

- The cat moves with the arrows.
- The mouse constantly changes its position randomly.
- The game ends when you touch the mouse (Win Condition).

- **Junior Level:**

- ❖ **Game:** Avoid the Asteroids

- ❖ **Description:** The player controls a spacecraft that tries to traverse a field full of asteroids.

- ❖ **The objective:** To dodge the coming rocks and stay alive for as long as possible. The longer a player holds, the higher their points will be.

- ❖ **Rules of the game:**

- The player moves the vehicle using the arrows (up/down) to move vertically.
- The rocks appear from the right and are constantly moving towards the left.
- If the vehicle hits a rock: Game Over is over.
- The player gets two bonus points every time they survive without collision.

- ❖ **Expected Game:**

- A spacecraft moving vertically.
- Rocks appear from random places and move towards the vehicle.
- The system automatically calculates points and displays a message when the game ends.
- A detailed example of the idea can be viewed via the link:

<https://drive.google.com/drive/folders/1SBi1HobtQx-uaeQrnJCSQl-4bayDOGIg?usp=sharing>

Good Luck.