MISSION TO PLANET S.T.E.A.M.

The international Hackathon of the S-Team project aims to bring together the **different participating** realities, in particular the students involved, to **give the opportunity to share the experiences** and **knowledge** acquired during the project. The participating teams will have the opportunity to get to **know each other, make friends and present projects and creations** developed based on one of the 5 "missions" to choose from. The "missions" will be presented to the teams 4 weeks before the final event which will be held in Rimini - Italy on 24 November 2023. **The carrying out of the "missions" can be undertaken either purely by design or by involving the creation of prototypes based on the OTTO kits DIY**, as well as being the subject of multimedia/social content. During the final event it will be possible to use the classrooms and spaces made available by the Karis Institute, as well as use material and equipment (3D printers, OTTO DIY kits, laptops, various tools) made available by Assoform Romagna. Even during the final event, **experts and professionals from the S.T.E.A.M disciplines will be present**, including teachers, influencers, consultants, with the aim of animating and assisting the participants in carrying out the various activities.

OTTO is a special robot: he comes from a distant planet and landed on Earth full of curiosity about the S.T.E.A.M world. subjects! At the same time OTTO is a generous robot, a friend to everyone, respectful of the environment and always wants to lend a hand!

It's time for a new adventure to face together with our friend OTTO: let's choose a mission together and let's start the imagination and fun.

1. **"S = Science"** _ OTTO wants to discover the world of gardening and learn how to keep soil humidity under control, try to manage the lights in a greenhouse and become a skilled assistant in the garden or vegetable patch! In this mission our goal is to teach OTTO to help us in the school garden, with house plants etc.

2. **"T = Technology"** _ Our OTTO has 5 cousins older than him, all very famous because they went to discover the wonders of Mars and their names are Sojourner, Spirit, Opportunity, Curiosity, Perseverance. OTTO also wants to go to Mars, but he is not yet prepared enough for such an important mission: he must first learn to avoid obstacles of various kinds, such as boulders or rocky walls. Let's put it to the test and build a simple labyrinth or a path with obstacles of various sizes and find out if OTTO will also be able to go to Mars one day!

3. **"E = Engineering"** _ OTTO is always looking for new places to explore and a few days ago he discovered the beauty of lakes, rivers and the sea. Unfortunately, there are two small problems: the first is that he can't swim, the second is that he doesn't like plastic waste in the water. What can we do?

4. **"A = Art"** _ If there is one thing that makes our friend OTTO have fun like crazy, it is when he can express himself freely: dancing, changing different looks and clothes and even acting for cinema or television! But still his steps are awkward and out of time, his tastes in fashion and style are mostly questionable and shy as he is he has never acted in front of

the camera. Now it's our turn: let's put him in front of the camera and make him dance, or let's have him parade on the catwalk with the coolest looks or let's have him tell a short story to put on social media!

5. **"M = Mathematics"** _ OTTO is very good with numbers and operations and likes to lend a hand to check that the calculations are correct. But he doesn't speak our language... so we'll invent a way to get help with his math homework by enabling OTTO to communicate with us in a new special language.

TIMING

- Since you receive this message, you have **until November 24th to complete the mission.**
- **You can finish carrying out the mission even during the event,** together with your teachers, the other teams and the various experts present.

HOW TO COMPLETE THE MISSION?

- To complete the mission, you can choose between **developing Hardware/Software**, creating **Multimedia Content** or developing T**heoretical Project Ideas**.
- You will have to **work as a team**, without forgetting that **prejudices are the biggest obstacle** in this adventure of ours
- It is advisable that **your professors make weekly reports on the status of the mission**, so that you can **receive advice and solutions** to the various obstacles you will face

WHAT SHOULD YOU BRING WITH YOU TO RIMINI?

- Self-Presentation and High-Level Project Summary – Introduce Your Team and answer to the following questions: What name does your project have? What mission did you choose to carry out? How does it "solve" the challenge? How did your team approach the mission? How did you divide the roles and tasks of the mission? **ACCEPTED FORMAT: Text Files, PDF, Slideshows, Video. The files should be uploaded on this Google Drive Folder**
- Project Presentation - It can be a slideshow accompanied by an oral explanation and/or Live Demo carried out by Team members or a Video lasting up to 5 minutes. **ACCEPTED FORMAT: SLIDESHOW pptx (PowerPoint) / VIDEO - MP4, MOV, AVI. The files should be uploaded on this Google Drive Folder**
- OTTO Robots - **bring only the robots that you have assembled for the mission** and which will be used for the presentation of the project and for any modifications, finishing and finalization

WHAT WILL YOU FIND IN RIMINI?

- Multidisciplinary laboratory room
- Laptops
- Wi-Fi Connection
- OTTO DIY Kits + Hardware Upgrades
- 3D printers
- Tools for STEM (Science, Technology, Engineering, and Mathematics) Activities
- A Participation Prize for Your Team!!!

WHAT WILL HAPPEN IN RIMINI?

1. The various **teams are welcomed** at the event venue
2. **The teams take up positions in the laboratory room** to proceed to the **modification, finishing and finalization phase of the projects**. Also in this phase, the Teams can **exchange ideas and opinions** among themselves or with the various STEM experts present in the room.
3. In turn, **each team will present their projects**
4. **Team members** and their **companions** will **vote via a specially drawn up Google** form on the projects they liked most, **choosing from the proposals of the other teams.**
5. The jury will **count the votes**
6. **Each team will receive a participation prize**, **while the team** whose project **has received the greatest consensus will receive an additional prize.** Each of these prizes will include a STEM teaching kit chosen specifically for the occasion.