1. The Malta Robo League

Malta Robo League is a STEM education program designed for young children (7 to 11 years). Teams made up of to 6 members will be guided by an adult mentor to explore and research a real-world problem related to this year's theme **'Climate Change'**. They are challenged to design and develop a solution which includes a model using any robotic kit (e.g. WeDo, Engino, Sphero, Microbit). This program will enable participants learn how to apply their classroom knowledge to a real-world application.

For more information on Malta Robo League, please check out: www.mromalta.com or contact Mr Keith Aquilina, Education Officer (Digital Literacy), Directorate of Digital Literacy & Transversal Skills.

2. Rules & Regulations

A team must have a minimum of two (2) and a maximum of six (6) children from 7 to 11 (year 4 to year 6). Children may be members of only one (1) Malta Robo League team. Each team needs to be guided by at least one adult mentor.

Teams must demonstrate completion of all three (3) steps of the Project (identify a problem, develop an innovative solution, and share with others) as part of their presentation.

Step 1: Identify

Identify a real world problem related to this year's theme 'Climate Change'. Research the problem to develop a possible solution. Where possible, teams should share their initial ideas with experts in the field to acquire knowledge which will help them in their project.

Step 2: Design

Teams build a representation of what they are researching, incorporating movement into their creation through the use of a robotic kit. Teams will use any robotic kit to animate their model thus learning basic engineering and computational thinking concepts in the process.

Step 3: Share

Finally teams are to prepare a 5 minutes presentation to share with the experts, other teams and the general public during MRO. The presentation has to include a poster and the robotic model. The presentation may also include slideshows, props, costumes, and more. The presentation should involve creativity whilst making sure that it includes the problem, solution, and how the idea is shared. The Presentation poster should not be larger than 100cm (width) by 80 cm (height).

The presentation will be followed with a 5 minute Q&A session led by the experts. Presentations to experts for primary school teams will be held during school hours on Friday 27th March. On Friday 27th evening, Saturday and Sunday, teams are urged to showcase their projects to the public.

Time line to accomplish this project will be as follows:

- **Mentor Information Session:** 20th November (Tasks, Rules & Regulations)
- **Mentor training:** 20th November
- **Registration deadline:** 30th November
- **Practice time:** November till March
- **Expo Presentation:** 27th, 28th, 29th March 2019 @ MRO

Any team can participate and can choose to apply either privately, as part of an entity or through a school.

The DDLTS labs will be available for teams wishing to make use of our premises or expertise on Wednesdays or Fridays between 2.30pm and 5pm. Mentors should call to book a place on 25981564 or email keith.aquilina@ilearn.edu.mt

3. MENTORING

Teams can be registered as representative of a school, an entity or private. Thus for example,

- a year 4 teacher may decide to register all his class comprising of 24 students, thus registering as mentor for 4 teams of 6 students each. These teams representing the school.
- A scouts group may decide to have their cubs groups work on this. Thus the scout leader would register teams of up to 6 kids each. In this case the teams are not representing the kids' schools but the scout group.
- A parent may decide to form a team from a group of kids. In this case the kids are not representing their school but registering as a private team.

The DDTLS will be organising an **information session** for mentors and **mentor training**. These will be held at the DDTLS premises at Hamrun.

The information sessions will give mentors an overview of the rules and regulations and further details on the program.

The mentor training is designed for mentors as preparation for the Malta Robo League program. This will include training on how to run a team and training with the robotic kits available in schools i.e. Wedo and Sphero.

The DDTLS will also provide free microbit kits and training to the first 15 teams who show interest.

4. Evaluation

The projects will be evaluated by experts, who will provide each team with feedback and ask clarifying questions when needed.

The feedback will be based on the following criteria:

a) Project – an innovative and creative solution to the identified problem,
b) Robot – a working robotic model.
c) Presentation – effective presentation including message delivery and organization. This is to include sharing of presentation with others.
d) Teamwork – task distribution, involving all team members and presentation.

5. MRO presentation

The mentor is responsible for the team members safety and well being during the MRO.

Team members are advised to wear similar clothing at the completion to stand out in the crowd.

Team is responsible for personal belongings including project and related equipment.

6. Awards

Each participating team who successfully follows the rules and regulations is a winning team. Extra effort will be rewarded accordingly.

Participants will also be awarded with token prizes gently provided by sponsors.

We encourage participants to enjoy this challenge for the sake of the experience, learning and fun within the Malta Robotics Olympiad.