## Marvels @ ICNA MAS Convention 2023 - Robotics - Room 330

| Saturday, May 27th 2023 |   |                    |  |           |  |  |  |
|-------------------------|---|--------------------|--|-----------|--|--|--|
| Name                    | Title/Topics                            | Timings            | Comments   | Age Group |  |  |  |
| Marvels Teams           | Robotics Showcase                       | 2:00PM-10:00PM     | Open Area will be provided   | Open      |  |  |  |
| Marvels Teams           | Kicking off Robotics in your Community  | 2:00 PM - 3:00 PM  | Learn about the positive impact of implementing a robotics program in a Masjid/School, and hear from Marvels students about their successful experience.   | Open      |  |  |  |
| Marvels of MAS          | 3D Modeling for beginners               | 3:00PM-4:00PM      | Onshape modeling to create your own designs  | 7-11      |  |  |  |
| Marvels of MAS          | Introduction to Robotics using Lightbot | 4:00 PM -5:15 PM   | Bring your own laptop. Ages 7-9. Introduction to block-based coding  | 7-9       |  |  |  |
| Marvels of IAR          | Interactive Robotic Workshop            | 6:00 PM - 8:00 PM  | Bring your own laptop. Ages 10-16. In this robotics workshop, students aged 10 to 16 will work in teams to build and program small robots. The teams will work in parallel to complete their robots, and will then test them and compete in a hover ball competition. The objective of the competition is to score the highest number of points, and the team with the highest score will be declared the winner. This hands-on workshop is designed to develop students' teamwork, problem-solving, and programming skills in a fun and engaging way. | 10-16     |  |  |  |
| Marvels of MAS          | Effective Presentation Skills           | 8:00 PM - 9:00 PM  | Ages (12-16) Teach and apply the art of giving presentations   | 12-16     |  |  |  |
| Marvels of MAS          | Advanced 3D Modeling                    | 9:00 PM - 10:00 PM | Walkthrough of advanced 3D modeling software and sessions to CAD a small assembly  | 12-16     |  |  |  |

| Sunday, May 28th 2023     |  |                     |  |           |  |  |
|---------------------------|--|---------------------|--|-----------|--|--|
| Name                      | Title/Topics                           | Timings             | Comments   | Age Group |  |  |
| Marvels Teams (MAS + IAR) | Robotics Showcase                      | 11:00AM-7:00PM      | Open Area will be provided   | Open      |  |  |
| Marvels of MAS            | Bring Art into STEM (STEAM)            | 11:00 AM - 12:00 PM | Art workshop to create effective posters or drawings to communicate your ideas   | 10-14     |  |  |
| Marvels of IAR Workshop   | Introduction to coding using Scratch   | 12:00 PM - 1:30 PM  | Bring your own laptop. Ages 8-12. In this coding workshop, kids aged 8 to<br>12 will be introduced to coding using Scratch blocks, a visual programming<br>language. The workshop will cover the basics of coding through interactive<br>and engaging activities. Students will learn how to use Scratch blocks to<br>create their own programs and will leave the workshop with a basic<br>understanding of coding concepts and how to apply them in the real<br>world. | 8-12      |  |  |
| Marvels Teams             | Kicking off Robotics in your Community | 2:00 PM - 3:00 PM   | Learn about the positive impact of implementing a robotics program in a Masjid/School, and hear from Marvels students about their successful experience.   | Open      |  |  |
| Marvels of MAS            | Programming with Legos                 | 3:00 PM - 5:00 PM   | Bring your own laptop. Ages 8-12. Build your own Lego bots, program them and accomplish missions or make them dance (ages 8-12)  | 8-12      |  |  |
| Marvels of MAS + IAR      | Robotic Coding Workshop                | 6:00 PM - 8:00 PM   | Bring your own laptop. Ages 12-16. In this robotics coding workshop, each<br>student with work through tutorials on their own to figure out how to<br>move a 3d robot. Then they will be able to go through more "levels" to<br>make the robot capture the flag. Following the virtual coding session, kids<br>will engage in applying thier acquired skills to program and compete<br>physical robots similar to those used in FIRST TECH CHALLEGE<br>Competitions.     | 12-16     |  |  |