RULES & REGULATIONS

Please carefully review the following rules and regulations before participating in our event. All participants are expected to comply with the following regulations to ensure a fair and competitive setting for everyone involved. By participating in this event, you agree to abide by these rules and regulations.

Nexentia.lk

MECHATRON | IOT INNOVATION RULES AND REGULATIONS

TASK

BUILD AN IOT PROTOTYPE THAT SOLVES A REAL-WORLD PROBLEM.

ELIGIBILITY AND PARTICIPATION

- STUDENTS FROM GRADE 9-13 CAN PARTICIPATE IN THIS COMPETITION.
- THIS COMPETITION IS ONLY FOR TEAMS OF FOUR, NOT FOR INDIVIDUALS.
- NO LIMITATION IS ADDED TO THE NUMBER OF TEAMS PARTICIPATING FROM A SCHOOL.
- ONLY ONE SUBMISSION IS ACCEPTED FROM EACH TEAM.
- ALL TEAM MEMBERS MUST BE STUDENTS OF THE PARTICIPATING SCHOOL.

INSTRUCTIONS

- THE FIRST ROUND OF THE COMPETITION WILL BE HELD ONLINE.
- EACH TEAM MUST PRESENT AND EXPLAIN THEIR PROTOTYPE TO THE JUDGES VIA ZOOM WITHIN 5 TO 10 MINUTES.
- THE INVENTION SHOULD BE SIMPLE, USEFUL, AND FOCUSED ON FULFILLING A SOCIAL NEED OR ASSISTING THE WELL-BEING OF PEOPLE.
- USE OF RECYCLED OR ECO-FRIENDLY RAW MATERIALS IS ENCOURAGED.
- THE PROTOTYPE MUST BE A WORKING MODEL.
- EVERY TEAM MUST SUBMIT A PROJECT REPORT (PDF) ONE DAY BEFORE THE ZOOM SESSION.

SCORING

PROJECTS WILL BE EVALUATED OUT OF 100 MARKS BASED ON THE FOLLOWING CRITERIA:

- FEASIBILITY (25 MARKS) : HOW PRACTICAL AND REALISTIC THE SOLUTION IS FOR IMPLEMENTATION.
- ORIGINALITY (25 MARKS) : THE LEVEL OF INNOVATION AND UNIQUENESS OF THE IDEA.
- USEFULNESS & SOCIAL IMPACT (25 MARKS) : RELEVANCE TO REAL-WORLD NEEDS, ESPECIALLY IN PROMOTING WELL-BEING OR SOLVING COMMUNITY PROBLEMS.
- PRESENTATION & CLARITY (25 MARKS) : EFFECTIVENESS OF THE ZOOM PRESENTATION, EXPLANATION OF COMPONENTS, AND OVERALL UNDERSTANDING OF THE SYSTEM.

ADDITIONAL RULES

- PLAGIARISM: ANY USE OF NON-ORIGINAL DESIGNS, CIRCUITS, OR COPIED PROJECT IDEAS WILL RESULT IN IMMEDIATE DISQUALIFICATION.
- PRE-BUILT PROJECTS: ENTRIES THAT HAVE ALREADY BEEN SUBMITTED TO OTHER COMPETITIONS OR WON ELSEWHERE ARE NOT ALLOWED.
- COMPETITION PERIOD REQUIREMENT: ALL PROTOTYPES AND DESIGNS MUST BE DEVELOPED WITHIN THE COMPETITION PERIOD. REUSED OR MODIFIED OLD PROJECTS ARE NOT PERMITTED.
- USE OF THIRD-PARTY CODE/MODULES: PARTICIPANTS MAY USE OPEN-SOURCE CODE LIBRARIES OR MODULES, BUT THEY MUST BE CLEARLY CREDITED IN THE REPORT.
- AI ASSISTANCE: PARTICIPANTS MAY USE AI TOOLS FOR LEARNING OR TROUBLESHOOTING, BUT AI-GENERATED FULL CODE OR DESIGNS ARE STRICTLY PROHIBITED.
- ECO-FRIENDLINESS ENCOURAGED: REUSE OF MATERIALS AND SUSTAINABLE PRACTICES ARE ENCOURAGED AND MAY EARN BONUS POINTS WHERE APPLICABLE.

MECHATRON | ROBOTIC DESIGN RULES AND REGULATIONS

TASK

BUILD A FUNCTIONAL ROBOT (WIRED OR WIRELESS) THAT SOLVES A BASIC PROBLEM OR PERFORMS A USEFUL TASK. THE ROBOT CONCEPT MUST ADDRESS A REAL-WORLD PROBLEM OR FUTURISTIC INNOVATION IN AREAS LIKE HEALTHCARE, ENVIRONMENT, SPACE, DAILY LIFE, EDUCATION, ETC.

ELIGIBILITY AND PARTICIPATION

- STUDENTS FROM GRADE 9-13 CAN PARTICIPATE IN THIS COMPETITION.
- INDIVIDUAL OR TEAMS OF UP TO 3 MEMBERS.
- 2 SUBM
- ONLY ONE SUBMISSION IS ACCEPTED FROM EACH TEAM.
- ALL TEAM MEMBERS MUST BE STUDENTS OF THE PARTICIPATING SCHOOL.

COMPETITION FORMAT

ROUND 1 – ONLINE SUBMISSION

- TEAMS SUBMIT A SLIDE PRESENTATION AND ROBOT STRUCTURE/MODEL DESIGN.
- TOP 10 TEAMS WILL BE SELECTED AS SEMI-FINALISTS.

ROUND 2 - FINAL ROUND

- FINALISTS WILL PRESENT THEIR PROJECT LIVE FOR 15 MINUTES WHICH WILL BE HELD PHYSICALLY (15 MIN PRESENTATION + 5 MIN Q&A).

INSTRUCTIONS

PARTICIPANTS MUST SUBMIT THE FOLLOWING THROUGH THE OFFICIAL GOOGLE FORM:
(UPLOAD THE PRESENTATION AND THE MODEL DESIGN TO A GOOGLE DRIVE LINK AND MANAGE THE ACCESS TO ANYONE WITH LINK,YOU HAVE TO SUBMIT WITH THE DRIVE LINK IN THE FORM)

SLIDE PRESENTATION (PDF OR PPT) INCLUDING:

- ROBOT NAME, PURPOSE, CONCEPT
- PROBLEM IT SOLVES
- HOW IT WORKS (MECHANISM, PARTS, AUTOMATION)
- DESIGN VISUALS ,CONCEPT FLOW
- TECHNOLOGIES USED, ORIGINALITY

ROBOT STRUCTURE/DESIGN

OPTIONS ALLOWED:

- 3D MODEL FROM ANY PREFFERED SOFTWARE
  (E.G., TINKERCAD, FUSION 360,BLENDER ETC,...)
- HANDMADE MODEL PHOTOS (CLEAR, MULTI-ANGLE)
  NO RESTRICTIONS ON MATERIALS FOR HANDMADE MODELS.
- HAND-DRAWN OR DIGITALLY ILLUSTRATED SKETCHES , (MULTI-ANGLE)

SCORING

Criteria	Marks	Description
🔹 **Innovation & Originality**	25	How unique and futuristic is the robot idea? Does it stand out?
🔹 **Problem Relevance**	20	How clearly does the robot solve a real-world or futuristic problem?
🔹 **Robot Structure & Design**	15	Creativity and effort shown in model (3D, handmade, or sketch). Additional points for 3D Models
🔹 **Technical Explanation**	15	How well is the robot's mechanism or concept explained in the slides?
🔹 **Slide Presentation Quality**	10	Neatness, clarity, and visual appeal of the slides
🔹 **Optional Video (Functionality)**	5	If a video is submitted, does it show working parts or functionality? *(not compulsory)*
Total	**90 + 10 Bonus**	Max total score: **100** with bonus included

ADDITIONAL RULES

- PLAGIARISM: ANY USE OF NON-ORIGINAL MECHANICAL DESIGNS, ROBOT PLANS, OR COPIED CONCEPTS WILL RESULT IN IMMEDIATE DISQUALIFICATION.
- PRE-BUILT ROBOTS: ROBOTS THAT HAVE ALREADY BEEN SUBMITTED TO OR WON OTHER COMPETITIONS ARE NOT ALLOWED.
- COMPETITION PERIOD REQUIREMENT: ALL ROBOTS MUST BE BUILT DURING THE COMPETITION PERIOD. PREVIOUSLY COMPLETED OR MODIFIED BUILDS WILL NOT BE ACCEPTED.
- THIRD-PARTY PARTS: PARTICIPANTS MAY USE MOTORS, SENSORS, AND OPEN-SOURCE HARDWARE, BUT THE MECHANICAL ASSEMBLY AND LOGIC MUST BE PARTICIPANT-BUILT.
- AI ASSISTANCE: AI TOOLS MAY ASSIST IN LEARNING, BUT ENTIRE ROBOT CODE OR DESIGN CANNOT BE AI-GENERATED.

CONTACT US

EMAIL : jictsofficial@gmail.com
WEBSITE: Nexentia.lk

VERONIKA GAUSHI (PRESIDENT) : 070 538 0667
DIMASHI AYODYA (JOINT VICE PRESIDENT) : 071 872 8178
JANANI PABASARA (SECRETARY) : 077 341 0662