



RCJA OnStage Performance Technical Interview Score Sheet 2019

Team Name: Location:

Category: Novice Experienced Judge Name:

Teams must bring copies of their programs and details of mechanical and electrical hardware to the interview

Category	Examples of robot and team characteristics to maximise mark awarded	Mark
Programming	<ul style="list-style-type: none"> Using programming language appropriate to level of experience (3) Creating innovative programming solutions (2) Developing libraries that call functions (e.g. use of My Blocks) (3) Presence of algorithmic thinking (3) 	/12
Innovation & Originality	<ul style="list-style-type: none"> Design and construction largely student's own (4) Innovative technologies are used (4) 	/8
Robotic Communication & Interaction	<ul style="list-style-type: none"> Equipped with a communication function to achieve robot-robot interaction (4) Equipped with sensors to achieve robot-human or robot-robot interaction (4) 	/8
Electronic Hardware	<ul style="list-style-type: none"> Electronics developed/home built (as age appropriate) (4) Innovative use of technologies (e.g., cameras, speed controllers/motor controllers, GPS, different micro-controllers etc.) (2) Innovative use of sensors/integration of sensors (4) 	/10
Evidence of Authenticity	<ul style="list-style-type: none"> Able to explain how the mechanical systems / electronics work (2) Explain decisions made and any limitations of the electronics (2) Demonstrated the capabilities of the robot(s) (2) Demonstrated an understanding of how the communication is occurring (2) Able to explain how the program works and interactions between the hardware and software (2) Evidence of evolution through participation in robotics (2) <ul style="list-style-type: none"> e.g. evidenced through the journal 	/12
Deductions (at discretion of Judges, up to 20)	<ul style="list-style-type: none"> Judges should satisfy themselves that this is the work of the students. Originality of robot software and hardware (no re-use from previous competitions) All team members are able to discuss their technical involvement with the Robot 	
Total Score		/50

Notes:



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Category	Examples of robot behaviour to maximise mark awarded	Mark
Quality of the whole performance	<ul style="list-style-type: none"> • Non-repetitive robot movements and/or a varied robot performance moving around the stage area (4) • There is a link, or common theme demonstrated in the whole performance (2) • Visual impact and creativity (4) • Home-built robot costumes complement the performance and are engaging (2) • A performance that is engaging and throughout (4) • Creative use of the stage area (4) <p>Only robots and up to two performers are allowed on stage at one time Use of props or scenery on the stage is allowed only when used for interaction with the robot</p>	/20
Robot's movements	<ul style="list-style-type: none"> • Reliable robots that do not fall apart and work as expected for the duration of the performance (3) • Risky movements by robots (e.g. Robot(s) can balance itself) (4) • Fluid movements similar to humans (4) • Synchronization between robots (4) 	/15
Sensor & Interaction	<ul style="list-style-type: none"> • Sensors that are used "add value" to the performance (3) • Sensors are used in innovative ways (3) • Communication between robots to develop the performance (3) • Planned human-robot interaction (3) • Interaction between props and the robots (e.g. Robot(s) can avoid hitting with unexpected objects) (3) <p>Novice: The use of line tracking robots on mats will NOT be rewarded highly Experienced: No lines or mats are allowed on the stage</p>	/15
Deductions	<ul style="list-style-type: none"> • Each unplanned human intervention: -1 • Restarts: -1 for each re-start (maximum of 2 restarts) • Allotted time: -1 for each 10 seconds over • Within area: -1 for each infraction of the boundary 	
Total Score		/50

Notes: