# Performance Score Sheet

**Team Name:** ...........................................................................................................  **Country:** .........................................  **Primary/Secondary**

**Assessors Name:** ........................................................................................................

<table>
<thead>
<tr>
<th>Category</th>
<th>Examples of how high marks may be achieved are:</th>
<th>Mark</th>
</tr>
</thead>
</table>
| **Entertainment value**       | • Non-repetitive robot movements and/or a varied robot performance  
• There is a link, or common theme demonstrated by the whole performance  
• A digital display that integrates and/or complements the performance  
• A performance that is engaging throughout.  
• Ambitious use of the stage area  
• Robot movement(s) are choreographed tightly to the music  
*Static props will not be re-warded unless they serve a purpose.*                                                                 | /10  |
| **Innovation & Originality**  | • Robots are home-built not kits  
• Technologies are used in new or different ways that have not seen before.  
• Unusual technologies are used – for example unusual mechanical, electronic or power systems.                                                                                                           | /10  |
| **Quality of Display**        | • Reliable robots that do not fall apart and work as expected for the duration of the performance.  
• Home-built robot costumes that complement the performance and are engaging.  
• A slick and polished performance throughout the display.                                                                                                                                         | /10  |
| **Technical Complexity**      | • Robot movement around the whole stage area,  
• Synchronization and/or communication between robots,  
• Risky movements by robots  
• Interaction between digital display and the robots                                                                                                                                                    | /10  |
| **Sensor & Interactions**     | • Sensors that “add value” to the performance  
• Sensors are used in ‘original’ or different ways  
• Communication between robots to develop the performance  
• Human-robot interaction (not remote control)  
• Robot-robot interaction  
*The use of line tracking robots on mats will NOT be rewarded highly.*                                                                                                                            | /10  |
| **Deductions**                | • Each unplanned human intervention: -1  
• Restarts: -1 for each re-start  
• Allotted time: -1 for each 10 seconds over  
• Within area: -1 for each infraction of the boundary                                                                                                                                                |      |
| **Total Score**               |                                                                                                                                                                                                                                           | /50  |

**Award Recommendations:**

- [ ] Best Stage Performance
- [ ] Best Creative Display

**Notes:**
Team Name:................................................................. Country: ........................................ Primary/Secondary
Assessors Name:.........................................................

Teams must bring copies of their programs and details of mechanical and electrical hardware to the interview; otherwise, these categories cannot be assessed.

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<th>Category</th>
<th>Examples of how high marks may be achieved are:</th>
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<tbody>
<tr>
<td>Programming</td>
<td>• Using an age appropriate programming languages&lt;br&gt;• Being able to explain how the program works and interactions between the hardware and software&lt;br&gt;• Creating innovative programming solutions&lt;br&gt;• Developing libraries&lt;br&gt;• Explain decisions made and any limitations of the software</td>
<td>/15</td>
</tr>
<tr>
<td>Mechanical Hardware</td>
<td>• Implementing reliable mechanical systems&lt;br&gt;• Complex/innovative mechanical systems&lt;br&gt;• Being able to explain how the mechanical systems work&lt;br&gt;• Mechanisms that have been developed for very high precision, or for mechanically ‘difficult’ situations&lt;br&gt;• Appropriate actuators have been used, and there is an understanding of why they have been chosen.</td>
<td>/15</td>
</tr>
<tr>
<td>Electronic Hardware</td>
<td>• Electronics have been developed/home built (as age appropriate)&lt;br&gt;• An understanding of how the electronics works&lt;br&gt;• Innovative use of sensors/integration of sensors&lt;br&gt;• Innovative use of technologies to aid performance (e.g., cameras, speed controllers/motor controllers, GPS, different micro-controllers etc.)&lt;br&gt;• Explain decisions made and any limitations of the electronics</td>
<td>/10</td>
</tr>
<tr>
<td>Communication &amp; Interaction</td>
<td>• Use of effective communication&lt;br&gt;• Development of communication protocols&lt;br&gt;• An understanding of how the communication is occurring&lt;br&gt;• Sensors are used to allow interaction between robots-humans or robots-robots.</td>
<td>/5</td>
</tr>
<tr>
<td>Paperwork &amp; Quality of Interview</td>
<td>• Teams hand in all required paperwork to the competition&lt;br&gt;• Teams understand the hardware, software and mechanical they have used, and can answer questions.</td>
<td>/5</td>
</tr>
<tr>
<td>Deductions</td>
<td>Re-use of previous robot (software and hardware) or props (up to 60%)</td>
<td></td>
</tr>
<tr>
<td>Total Score</td>
<td></td>
<td>/50</td>
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</tbody>
</table>

Award Recommendations:  
□ Best Design & Construction
□ Best Use of Electronic Devices
□ Best Use of Sensors
□ Best Programming