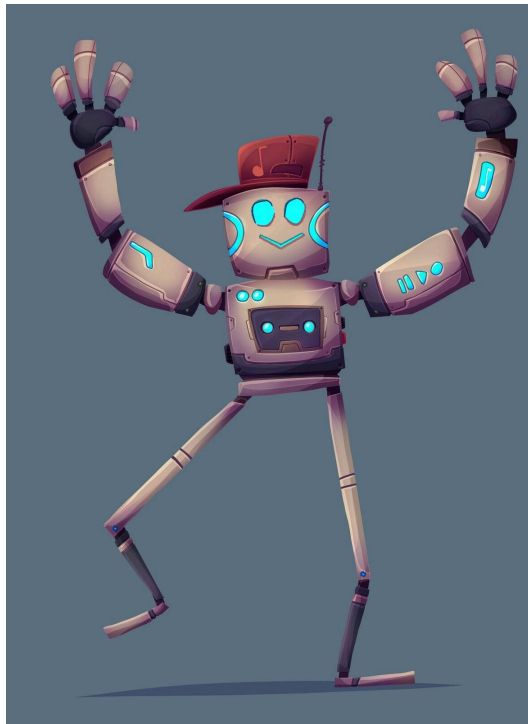


IEEE Ottawa Robotics Competition

Dancing Robot Challenge



It is your responsibility to review this document on a regular basis, as it may be updated from time to time. Please contact the Arduino Team at orcarduino@gmail.com if you have any questions.

Last updated on: March 21st, 2024

Introduction

The Dancing Robot Challenge combines the technical skills of engineering with the creative process of the arts. Your team is tasked with building an autonomous robot that can perform an entertaining dance routine. The music selection is up to you.

This year's theme is *science-fiction*!

Instructions

1. The robot has 90 seconds to showcase an autonomous dance routine.
2. The robot must begin its performance at the center of a 55 cm x 5cm stage and remain on the stage throughout the performance.
3. Your team may decorate the stage with props that fit within its borders and that are less than 30 cm tall.

Judging & Scoring

- Your team's performance will be evaluated by a team of ORC judges.
- The robot's dance will be evaluated according to the following criteria:
 - Choreography
 - Originality
 - Degree of difficulty
 - Construction
- Your team's overall score will consist of:
 - The robot's dance performance [70%]
 - Your team's presentation [30%]

Dance Performance Rubric

Point distribution	4 - Excellent	3 - Good	2 - Satisfactory	1 - Unsatisfactory
Choreography				
The routine complements the music, showcases a variety of movements, and effectively utilizes the stage space.				
Originality				
The combination of choreography, music, and stage design creatively addresses the theme.				
Degree of difficulty				
The performance integrates a diverse set of mechatronic components and/or external props (ex: motorized actuators, LEDs, sensors, banners, ribbons, etc.).				
Build Quality				
The robot's appearance is visually appealing and shows evidence of careful attention to detail.				
Comments & Feedback				Total Points

Presentation Rubric

For the presentation, use PowerPoint or Google Slides as your visual aid. Your team will have 7 minutes to present and 5 to answer questions.

Point distribution	4 - Excellent	3 - Good	2 - Satisfactory	1 - Unsatisfactory
Engineering Design Process				
Demonstrated a thorough application of the <u>engineering design process</u> while explaining the development of their solution.				
Problem Solving				
Highlighted specific challenges, how they were tackled, and the lessons learned.				
Collaboration				
Showcased the ability to leverage individual strengths to enhance overall team performance.				
Communication				
Presented in a clear, organised, and engaging manner. Answers to questions showcased a deep understanding of the solution.				
Comments & Feedback				Total Points