



Robotic Dance

OVERVIEW

Participants will work as a team of two (2) to five (5) people to program a humanoid robot to dance to the song of their choice.

PURPOSE

Participant will have the opportunity to work as a team to program a humanoid robot to dance to a song.

TIME LIMITS

- A. Programs shall last sixty (60) seconds, starting from the first movement to sound until the final movement or sound.
- B. For every 5 seconds over or under sixty (90) seconds, five (5) points shall be deducted.
- C. Program is written before the conference and students are given one (1) hour at the conference to adjust and correct their programs.
- D. Each team will have ten (10) minutes to present and explain their dance to the judges.

ATTIRE

Business casual dress as is the minimum requirement.

PROCEDURE

- A. Participants will write a program on for a humanoid robot. Teams who do not have this software may request a ninety (90) day free-trial by emailing TSA.
- B. Participants shall present a flash drive to the judges at the time and place stated in the conference program. This flash drive should contain the program and a written description of their program.
- C. The flash drive should have the team identification number and event name.
- D. The written description should describe the programming techniques used and the dance. Include all movements and actions of the dance.
- E. Teams should report at the place and time described in the conference program to make adjustments and corrections to their program. In order to edit their program, teams must bring their own computer with the software installed. Teams are not required to edit their program.
- F. Teams will present their program to the judges and answer any questions presented by the judges.

REGULATIONS

- A. All work must be completed during the current school year.
- B. The teams shall turn in a flash drive to the judges containing their program and a written description of their dance. These should be the only items on the flash drive.

EVALUATION

Evaluation will be based on programming complexity, program performance, and programming knowledge of the team members.

ROBOTIC DANCE

EVENT COORDINATOR INSTRUCTIONS

PERSONEL

- A. Event Coordinator
- B. Two (2) Assistants
 - a. One (1) to collect programs from participants
 - b. One (1) to observe and time keep while students edit their programs
- C. Three (3) judges
- D. One (1) timekeeper for presentations

MATERIALS

- A. Event rules
- B. Judging Sheet
- C. Stopwatch
- D. Computer with robotic software installed
- E. Humanoid Robots
- F. A table and three (3) chairs

RESPONSIBILITES

- A. Retrieve a copy of the event rules and a judging sheet for each judge.
- B. Set up a site for the teams to turn in their programs. Attire is NOT required for check in.
- C. Give teams the opportunity (either when turning in their programs or during their one hour editing time) to sign up for a presentation time.
- D. Allow for ten (10) minutes for each presentation and five (5) minutes for judges to evaluate in between presentations.
- E. Ensure that teams do not communicate with anyone (or any other teams) during their one (1) hour editing time.
- F. Evaluators will evaluate the participants' project independently of one another. Refer to judging sheet for guidance.
- G. For the presentation, the judges will view each program on the team's computer.
- H. During their presentation, teams should present their dance and answer questions from the judges.
- I. Any rules violations will result a 20% point deduction or disqualification.

Participant ID _____

ROBOTIC DANCE			
2014 Official Rating Form			Middle School
Artistic Aspects (30 points)			
Criteria	Minimal (1-4 points)	Adequate (5-8 points)	Exemplary (9-10 points)
Judges: Using minimal (1-4 points), adequate (5-8 points) or exemplary (9-10 points) performance levels as a guideline, record the scores earned for the event criteria in the column spaces to the far right. The X1 or X2 notation in the criteria column is a multiplier factor for determining the points earned. (Example: an “adequate” score of 7 for an X1 criterion = 7 points; an “adequate” score of 7 for an X2 criterion = 14 points.)			
Correspondence to song (x1)	The dance does not correspond well with the song	The dance corresponds somewhat with the song	The dance corresponds with the song well
Flow of dance (x2)	Dance is choppy and does not flow well	Dance is somewhat choppy and flows somewhat well	Dance flows well and is not choppy
			Subtotal (30 points)
PROGRAMMING SKILLS (70 points)			
Complexity (x2)	The program is not complex	The program is somewhat complex	The program is very complex
Accuracy to plans (x2)	The robot’s dance was very different than that described in the written description	The robot’s dance was similar to that described in the written plans	The robot’s dance was the same as that described in the written plans
Programming Knowledge (x1)	Team members demonstrate little knowledge of programming and are unable to answer the judge’s questions	Some team members have good knowledge of programming and are able to answer judge’s questions	All team members have good knowledge of programming and are able to answer judge’s questions well
			Subtotal (50 points)
Total points w/o deductions (80 points)			
Time Deductions (Minus 5 points for every 5 seconds over or under 90 seconds)			
Rules Violations (Minus 20% of total points)			

TOTAL POINTS

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