#11 Robot Design Executive Presentation

Instructions:
Prepare a short presentation (less than 4minutes).
Assign team member for each category.

Introduction (10 sec.)	Team member:
Team name and number:	
School	
Grade	

Robot Facts: (20 sec.)	Team member:
Name of the robot	
Size:	
Number of motors:	
Number and type of sensors	
Number of attachments	
Programming language, number of programs and amount of memory	Lego Mindstorm EV3
Number and names of the completed missions	

Strategy (30 sec.):	Team member:
How did your team decide which missions to do for this year?	
How did your team decide how to group the missions?	
How successful was your decisions?	
How did your team divide the work for robot game?	
What was the hardest part of planning?	

Design Process (30 sec):	Team member:
How did you decide to design your chassis? (size, center of mass, walls, number of attachment points, etc.)	
How did you decide to design your drivetrain? (forward vs rear drive, type of wheels and tires, etc.)	
How did you decide to design your attachment points?	
How did you decide to design your attachments?	
How did you test and improve your design?	
What problems did you encounter when designing your robot? How did you solve the problem?	

Mechanical Design (30 sec):	Team member:
What makes your chassis effective? (size, center of mass, walls, number of attachment points, etc.)	
What makes your drivetrain effective? (forward vs rear drive, type of wheels and tires, etc.)	
What makes your attachment points effective to add or remove different attachments?	
Which mission was the hardest? How did you solve it?	

Programming (30 sec):	Team member:
How did you organize your programming for your team?	
How did you program your robot to know its location on the field? (walls, sensors)	
How did you make your program to ensure consistent results?	
How did you make your program efficient for practice and for game?	
What was most challenging in programming? How did you solve the problem?	

Prepare a briefly to demonstrate how it completes the mission(s) of your team's choice. Please do not do an entire robot round. The Judges need time to ask questions after the RDES.

Demonstration: (90 sec.)	What makes your attachments effective?	What makes your program effective?
	Team member:	Team member:
	Team member:	Team member:
	Team member:	Team member:
	Team member:	Team member:

Answer the following questions to prepare for the interview:

Possible Questions from the judges. (2 min.)	
GENERAL QUESTIONS	
What are you most proud of?	
STRUCTURAL DESIGN	
What was the hardest part of the design?	
How well does your robot stay together?	
What was the greatest design difficulty you encountered? How did you solve this problem?	
Why is your robot designed the way it is?	
LOCOMOTION AND NAVIGATION	
Why did you choose this method of moving?	
Would you explain how your robot turns (or travels a specific distance)? How satisfied are you with this?	
MANIPULATION	
Tell me about your attachments. Which attachments are most difficult to put on or take off?	
How do you retrieve or deliver objects on the field?	
SENSOR CONTROL	
What worked best for sensor control?	
How does your robot know where it is going?	
How does your robot know when to turn?	
(If no sensors are used) Would you explain how your robot knows where it is on the field?	
CHILDREN DID WORK	
How did you get everything working together?	
What makes your robot different than all the other robots here?	
How did your coach help your team to be successful?	