



Are We There Yet?

REQUIREMENTS PRESENTATION

Outline

- ▶ Movement
- ▶ Navigation
- ▶ Challenge Completion
- ▶ Software Requirements
- ▶ Non-functional Requirements

Movement

- ▶ The system shall move in multiple directions
- ▶ The system shall move autonomously

Navigation

- ▶ System shall navigate to four challenge zones.
- ▶ System shall follow Scotch Blue Painters tape to challenge locations.
- ▶ System shall stop when a challenge zone is reached.

Challenge Completion

- ▶ The system shall play Simon for 15 seconds.
- ▶ The system shall twist one row of Rubik's cube 180 degrees.
- ▶ The system shall draw "IEEE" on etch-a-sketch.
- ▶ The system shall carry a playing card across finish line.

Software Requirements

- ▶ Software shall perform proper identification of challenges
- ▶ Software shall issue commands to complete challenge to system after present challenge is identified.
- ▶ Software shall issue command to navigate to next challenge after current challenge completion.

Non-Functional Requirements

- ▶ System shall occupy a space no larger than 1'x1'x1' in starting and finishing area
- ▶ System shall not present any danger to judges, spectators or playing board

References

- ▶ IEEE Nova Southeastern University. (2014, September 7). IEEE SoutheastCon 2015 Student Program - Hardware Competition. Retrieved September 7, 2014, from IEEE SoutheastCon 2015: <http://www.ewh.ieee.org/reg/3/southeastcon2015/StudentProgram.html>