

The Hot Dog Maker Challenge

The Brilliant Hot Dog Shop Inc. is locating a new outlet on a large college campus. Due to the nature of the diet of college students (hot dogs are crucial to survival), the Hot Dog Shop has experienced long lines during peak hours with some customers walking away hungry. The company would like to investigate whether it would be cost effective to develop an automated system for serving cooked hot dogs. The objective is to serve the customer while limiting human intervention to one person. Your team's job is to develop an automated hot dog maker prototype out of VEX parts. You will present your completed prototype to our design team.



Task

Your team's objective is to develop an automated system for delivering cooked hot dogs once they are ordered. A single person, working from the point of sale, will press a button that initiates an order that automatically builds and delivers a custom hot dog. Your team will then analyze the long term benefit of implementing your system. Your analysis must weigh the pros of this approach with the cons, and make them clear to the client. Be sure to consider environmental, financial, and social factors in your analysis.

Time Frame

A draft of your proposal will be due one week from today and will be presented in class. Your team's final presentation will be given two weeks from today to an executive representing your client company.

Structure

You will select one partner from your company to work on your presentation. You may use any combination of the following formats for your formal presentation:

1. PowerPoint Presentation
2. Poster Presentation
3. Video

Rubric

A successful presenter will accomplish the following:

1. Explain the problem
2. State the benefits to society and the company
3. State the drawbacks of the robotics approach to society and the company
4. Discuss what specific functions and tasks the robot would be required to accomplish
5. Discuss cost and labor force impacts
6. Describe your proposed solution
7. Present an initial set of plans
8. Present a time line for proposed work
9. Cite your sources

Where to Start

Feel free to use any resources you can find, but remember to cite all sources.

The Great Hot Dog Caper

Brighton Hot Dog Shop Inc. is locating a new outlet on the CMU campus. Due to the nature of the diet of college students (hot dogs are crucial to survival), the Dog Shop has experienced long lines during peak hours with some customers walking away hungry. The company would like to investigate whether it would be cost effective to develop an automated system for serving cooked hot dogs. The objective is to serve the customer while limiting human intervention to one person. As an incentive, CMU will wave tuition for the first semester for any member of the winning team who is accepted into an engineering program at the CMU.

Task:

Your team's objective is to develop an automated system for delivering cooked hot dogs once they are ordered. A single person, working from the point of sale will initiate each order and place the hot dog bun into the system. Your team will then analyze the long term benefit of implementing your system. Your analysis must weigh the pros of this approach with the cons, and make them clear to the client. Be sure to consider environmental, financial, and social factors in your analysis.

Time Frame:

A draft of your proposal will be due one week from today and will be presented in class. Your team's final presentation will be given two weeks from today to an executive representing your client company.

Structure:

You will select one partner from your company to work on your presentation. You may use any combination of the following formats for your formal presentation:

1. PowerPoint Presentation
 2. Poster Presentation
 3. Video
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Rubric:

A successful presentation will include the following elements:

1. Explain the problem
 2. State the benefits to society and the company
 3. State the drawbacks of the robotics approach to society and the company
 4. Discuss what specific functions and tasks the robot would be required to accomplish
 5. Discuss cost and labor force impacts
 6. Describe your proposed solution
 7. Present an initial set of plans
 8. Present a timeline for proposed work
 9. Cite your sources
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Where to Start:

Feel free to use any resources you can find, but you must remember to cite all sources.