UNC CHARLOTTE
The WILLIAM STATES LEE COLLEGE *of* ENGINEERING

Senior Design Project Description

Company Name	**HANTOVER INC.**	**Date Submitted**	11/09/2017
Project Title	**TRIMIT HP (HANT_SAFE)**	**Planned Starting Semester**	JAN 2018

Personnel

Typical teams will have 4-6 students, with engineering disciplines assigned based on the anticipated Scope of the Project. 250 hours are expected per person. Complete the following table if this information is known, otherwise the Senior Design Committee will develop based on the project scope:

Discipline	Number	Discipline	Number
Mechanical	5	Electrical	1
Computer		Systems	
Other ( )			

Project Overview:

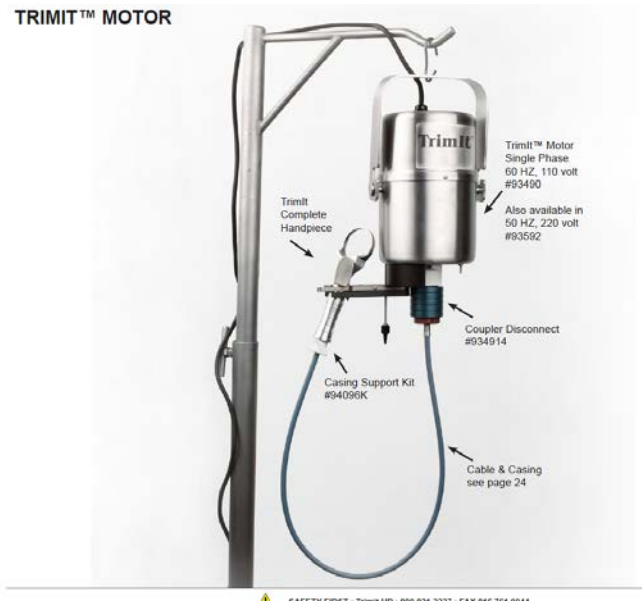
Hantover has long been established as a leading supplier to the food processing industry. They have preferred supplier status with major companies, such as Tyson and Cargill. In order to maximize worker productivity, modern meat processing companies use circular motorized meat trimming systems. The Hantover Trimit HP is a circular cutting device specifically design to make meat processing jobs easier, more efficient and safer than straight knives. See product photos below:

A video of this device can be viewed at:

https://www.youtube.com/watch?v=yb5xHgCvpmo

A video of a circular meat trimming device in actual use can be found at:

https://vimeo.com/album/4459446/video/207286076



Project Requirements:

The Trimit HP is both effective in its purpose and provides ergonomic benefits to the operator. It is superior in a number of areas including ergonomics, lighter weight, no contaminants used for lubrication, less expensive to run, and easier to maintain.

The objective of this project will be to design and prototype a safety kill switch device modification for the product. The modification will stop the blade when the trimmer is set down or when it is accidently dropped. Blade stoppage time will be part of the specification. The mechanism to do this should maintain all of the current product features as much as possible. It is desired for students to use their creativity in developing possible concepts for how best to implement this feature which will enhance the safety of its operation. Existing patents must be researched to ensure that no design infringement occurs.

Expected Deliverables/Results:

- Several design concepts generated
- Selection of preferred approach
- Prototype of design integrated with a Hantover supplied trimmer

Disposition of Deliverables at the End of the Project:

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Prototype to be delivered to Hantover after the conclusion of the Expo.

List here any specific skills, requirements, knowledge needed or suggested (If none please state none):

- None