



## Capstone Design Project Abstract

**Project Title: Three Part Safety Improvement Program for BD GDC**

**Sponsor: Becton Dickinson**

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**Faculty Mentor: Dr. Rodriguez**

Becton Dickinson is one of the largest medical technology companies in the world. They as a company bring in an annual revenue of over 20 billion dollars. Becton Dickinson has facilities worldwide where they manufacture, sterilize, and distribute. One of the largest of these facilities in located in Covington, Georgia. This facility is called the Global Distribution Center (GDC,) and it is responsible for receiving and shipping out cases that will go all over the world. The GDC is a massive warehouse with thousands of moving parts including motorized conveyors that route throughout the entire warehouse, large robots that aid in packing and other jobs, dozens of lift trucks, and several hundred employees. With all these moving parts there are several safety risks and concerns. The goal of this project is to mitigate these risks and concerns by using three methods of attack.

The three methods that our team will use to mitigate these risks include a series of videos, the addition of new and improved signage, and the addition of audio reminders around the facility. The three videos will focus on improving safety in the employees' daily routines, the kitting area, and how to improve employee ergonomics to reduce the risk of long-term injuries. Each video will last a few minutes and will be shown to employees to teach them how to be safer around the workplace. The improved signage will feature better ways of marking exit signs and fire extinguishers such as painting columns with exit and an arrow instead of the small signs seen normally. Improved signage will also include pedestrian gates that will require the person to check before entering an intersection. Finally, the audio reminders will be placed around the facility and can be best compared to the reminders at amusement parks that play in the background. These changes will ideally create a safer work environment for all BD GDC employees and not only prevent injuries but also improve mental health in employees by reducing fear of injury.