

Project Title: [Enhanced Pallet Loading Efficiency](#)

Team Members: Zachary Burk
Jacob Farrington
Jared Liebrecht
Eric Wieging

Faculty Advisor: Dr. Zhuming Bi

Area: [Mechanical Engineering](#)

Sponsor: [Sabert](#)

Sabert is a multinational packaging company, with a large facility located in Fort Wayne, IN. This company requires assistance with their 31st pallet loading issue. After conducting a shipping study, it was determined that by rotating pallets sideways and pushing them as far forward in the trailer, an extra 18-20 in of space was created inside of the trailer. With this extra space a pallet of boxes can be broken down and stacked in between the last and 2nd to last row of boxes. This drastically increases the shipping capacity of each truck. Currently employees are hand stacking this row of boxes, which creates ergonomic and time concerns.

With a budget of \$5000 a system or device must be designed that addresses these concerns and is cost effective. This solution must resolve the ergonomic issues faced when reaching outside of safe lifting areas and maintain or beat current loading times.