Food Lockers

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Motivation

- Long dining lines on campus
- Dining services' locations close too early
- Automating daily tasks is the future

Our Solution

- Design and fabricate a food locker that will vend food outside dining services' locations
- Features:
 - ▶ Modified commercial 4'x3'x3' undercounter refrigerator
 - ▶ Interior compartmentalized into 6 individual lockers by perforated stainless steel
 - ▶ 10.1" touch screen for consumers to interface with the locker and purchase meals
 - ▶ Mobile application to purchase meals within the locker on your phone
 - Automated checkout process that will vend the food to the customer

Preliminary Design/System Overview





Dining Services Web App



Consumer Mobile App

Physical Hardware

Controls



PLC rack
EM locks
Proximity sensors
Photo eyes

Food Locker



Interface



10.1" touch screen
App to communicate
to locker and DB

Potential Benefits

- Increase availability to food among students who purchased the meal plan
- Provide a futuristic, unique dining option for busy individuals on campus
- Reduce food waste in the future
- Gather valuable data on the students' dining habits
- Provide the University with a new revenue stream