

## 12.02 - HIDden Solutions

Team: Mark Mebane, Adrian Carbajal, Noah Dull

Acknowledgements

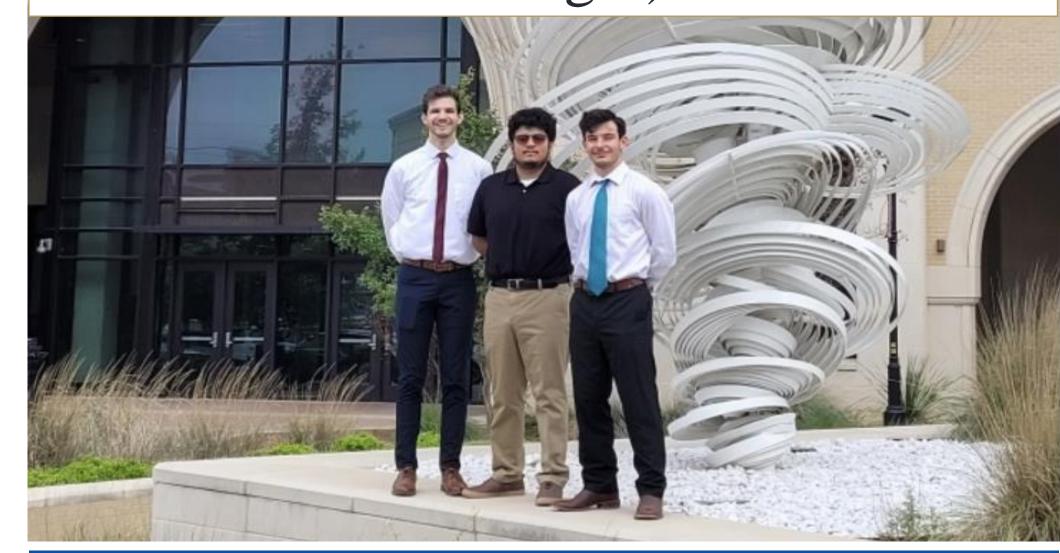
Sponsors: Mark Thelen, Keith Capobianco

Instructor: Dr. Michelle Londa, Ph.D



#### Team

Left to Right:
Noah (Industrial Engineer), Adrian
(Industrial Engineer), Mark (Project
Manager)



### Problem Statement

- Failures in Readers,
  Credentials, Shipping
- Inefficient operation, stress, scrap, wasted time, loss of income

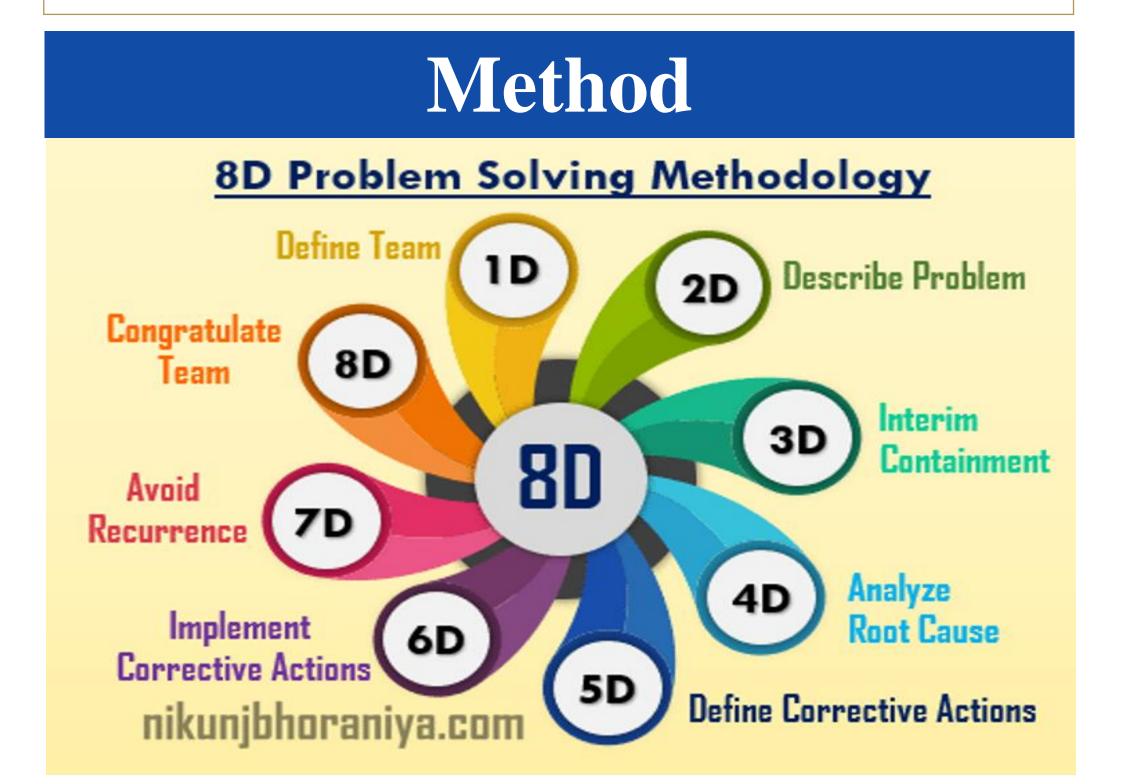
## Project Purpose

Q Identify Failures

Reduce Defects

Increase Package Traceability

Increase Profits



# Heat Flow Diagram

Cost-Savings Analysis

Estimated Total Cost of Failures in All Departments, Assuming 40 Hours to Fix

Cross Ship

Inadequate Packaging

Labeling / Packaging

Other

Processing Error

Product Not to Required Specifications

Short Ship

Wrong / Missing Numbering

Wrong Address

Wrong Format/Marking

Wrong Formatting / Programming

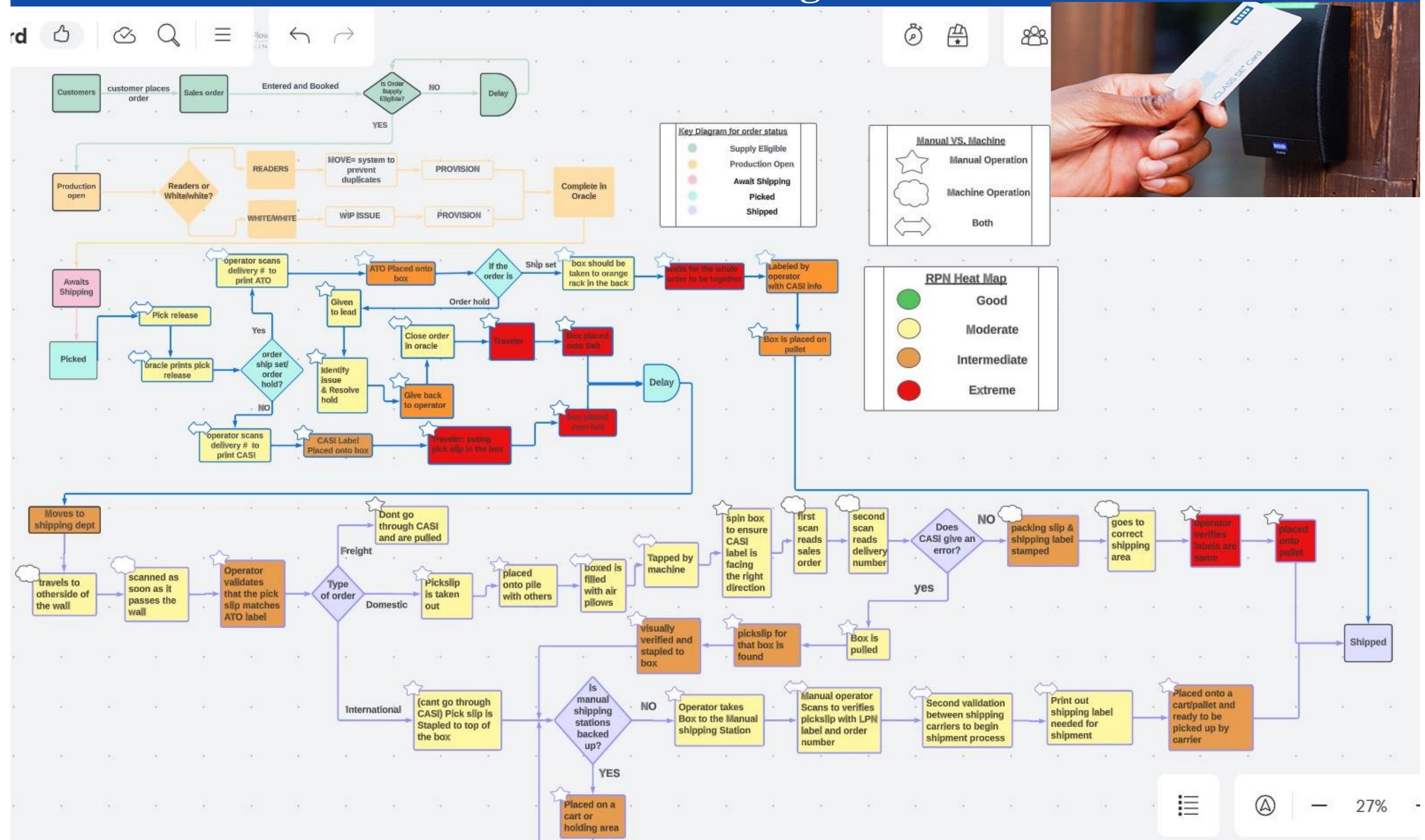
Damage During Shipping

Labeling Incorrect

Wrong Product

Total Cost for All Departments

Over the Last 3 Years



46,376.63

1,572.53

24,395.22

8,951.08

19,974.24

5,982.36

21,215.62

5,706.09

22,416.36

4,661.78

5,250.89

1,446.17

1,725.96

21,410.72

191,085.66

# Suggestion 2

Input a final verification step in Readers Department

Cross check order number on LPN label and pick slip

### Deliverables

- ✓ Process Flow Diagram
- ✓ PFMEAs for Readers,Credentials, Shipping
- ✓ Cost-Savings Analysis

#### Human Factors

- Physical/Mental Stress
- ❖ Identifying failures =
  First step to reduce stress
- PFMEA = prevent failures, Optimize process bottlenecks

## Suggestion 1

Remove Pick Slip

Trust Box Label



Traceability Scanner: Leaving Production/Entering Shipping

### Suggestion 3



