

Kritika Chopra, Layne McMahon, Payton Stadlander, Trevor Sorensen

Improvement of Moulder Uptime

Client: Pella Corporation, Pella, Iowa

Problem Statement

- A cell that consists of 2 moulders, an electronic press, and a robot is not meeting the efficiency and uptime goals that Pella would desire.

Objectives

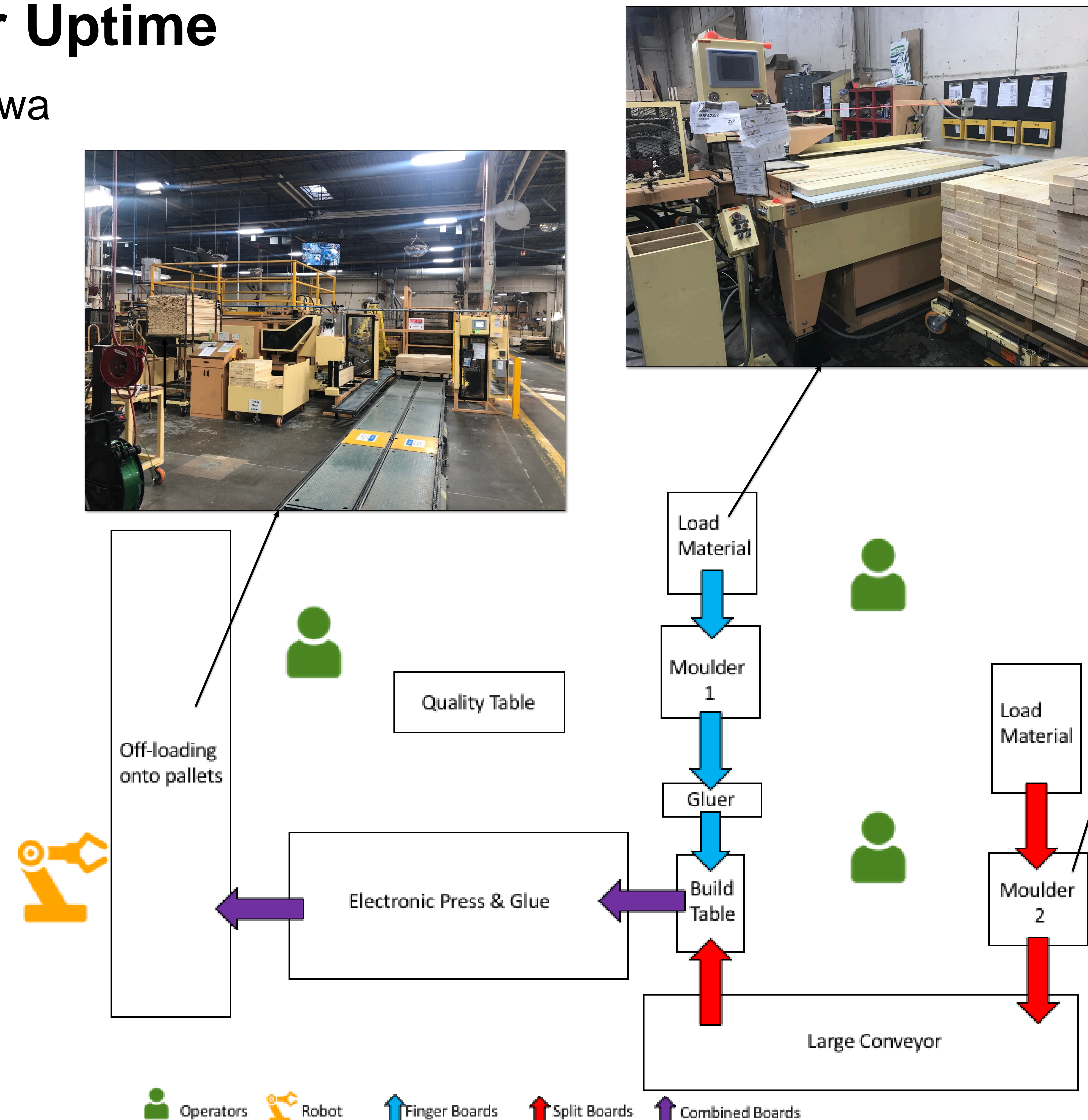
- Increase the efficiency of the process by 30%
- More consistent production output
- Identify Value Add vs. Non-Value of time

Constraints

- No added operators
- Maintain standards of glue weight and cook time
- Budget: < \$1,000
- Cannot change conveyor or robot speed

Scope

- Identify the problem
- Calculate data
- Research potential solutions
- Propose ideas
- Implement solutions



Methods

- Root Cause Analysis
- Fishbone diagram
- Pareto Chart
- Process Map
- Survey Operators
- Time Studies



Proposed Solutions

- Implement a lighting system for operators
- Improve or lengthen loading tables
- Change process of steps or order of tasks

Major Outcomes

- Reduction in overtime hours
- Increase output of product
- Simplify work for operators

Benefit to Client

- Prevent unwanted downtime
- Adaptability to train new operators