TEXAS STATE UNIVERSITY

The rising STAR *of Texas*

Group 2.1 : Signify - 10 Steps
The PowerForm

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Signify

Background

- Signify is a world leader in lighting with manufacturing facilities throughout the world. Our team had the privilege of working at the location in San Marcos, TX.
- All products are made to order, with customizable options to be chosen by the customer.
- Work Center 3095 (WC3095) produces the PowerForm, the most profitable product at the facility. However, WC3095 is not performing to Signify's standards.

Problem Statement

With the growing demand the need for improvement on Work Center 3095 increased. The work center was in need of enhancement in efficiency among its workers and product flow.

Project Purpose

The purpose of this project was to improve Work Center 3095's efficiency in order to stay in line with demand. Signify tasked us with the goal of increasing overall labor effectiveness and throughput.

Objectives

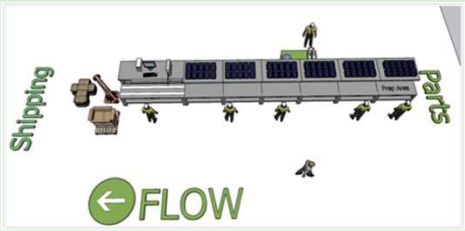
Our objectives during this project were to enhance WC3095 by:

- Increasing overall labor effectiveness
- Analyzing, developing, and implementing a solution to improve product flow
- Eliminating the bottleneck formerly delaying the throughput
- Reducing the non-value-added time in turn benefiting Signify's cost.

Improvements

With the 10 Steps to Capacity Enhancement process, we were able to meet the goals desired out of Work Center 3095. We began this semester implementing our new changes.
Those changes being:

- Rebalancing the steps between each workstation to decrease individual
  cycle time and lessen the workload on the bottleneck.

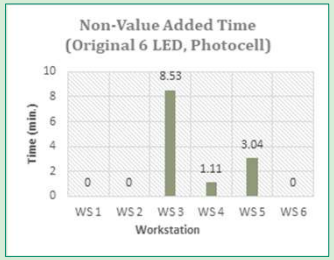


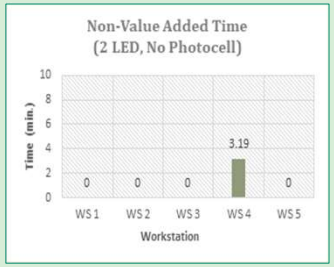
- The reallocation of a worker was made to reduce the number of workers on the line. The change in workers on the line allowed for the cycle time between stations to be based off the first stations cycle time.
- Updated layout of workstations to encourage optimal performance and reduce material handling.

Results/Impact

After implementation of the process, and the extrapolation of data between the builds we were able to reflect on our findings. This analysis revealed the change in percentage of non-value-added time between the two builds. We found a reduction in downtime from the former build time to the new. We then used this to compute the savings. Our takeaways from this study are as followed:

Savings	
Weekly	$ 197.12
Monthly	$ 853.53
Yearly	$ 10,242.36





- Cost savings of non-value-added time equating to $197.12 weekly or $10,242.36 yearly.
- Elimination of a major bottleneck at station 2 through the reallocation of process steps.
- Non-value-added time of the PowerForm build was reduced by 10% following the implementation of the new layout and steps.
- Number of workers dropped from 6 to 5 creating an efficient division of roles.
- Material handling was improved by redesigning the line layout. The layout eliminated excess walking between steps and the strain from lifting the build.

10 Steps to Capacity Enhancement

The process and evaluation method used throughout the project was the 10 Steps to Capacity Enhancement.
This Process was created by Signify with the skeleton of Lean Six Sigma Methodology. Lean was our approach in this project because it is a team focused method that caters in eliminating workspace waste.

Future

In order to continue the growing improvements on Work Center 3095 we have come up with a few ideas to encourage continuous improvement.

- Taking and analyzing each build and their similarities and differences between each other
- Implement a rubber puck to level and ease the assembly process of connecting the subassembly and the housing.

Team Members

Left to Right: Christopher Bower, Erin King, Alexis Andaverde, Jacob Cheramie

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