

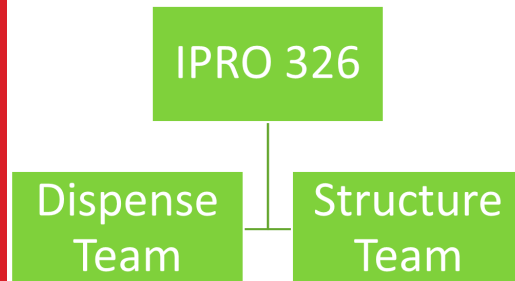
Objective:

Dispensing Team:

- Process Improvement
- Improve the efficiency of the Loctite Dispensing Station in the Fuel Pump Module assembly line

Mixed Model Line Team:

- Plant Layout
- Reduce production area to increase product flow and increase efficiency



IPRO 326 Team Members



Mixed Model Line:

Thomas Demeter
Jeff Grindel
Geoffrey Mitchell
Jerome Wisniewski
Derek Wong
Jake Rosen

Dispensing Team:

Adrian Birylo
Jonathan Hernandez
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Advising:

Phil Lewis:	IPRO Advisor
Joneph Pornuevo:	OMRON Floor Manager
Philip Stephen:	OMRON Plant Manager
Carol Curran:	OMRON HR Specialist
Scott Nicholson:	Process Improvement Engineer

ILLINOIS INSTITUTE
OF TECHNOLOGY



Engineering
Solutions

"Fine Tuning for Perfection"

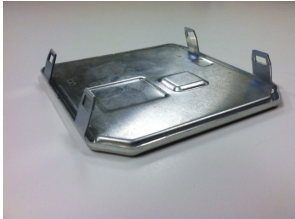
OMRON
ELECTRONIC COMPONENTS

IPRO It takes a team!
INTERPROFESSIONAL
PROJECTS PROGRAM



Engineering Solutions: Fine Tuning for Perfection

Dispensing:



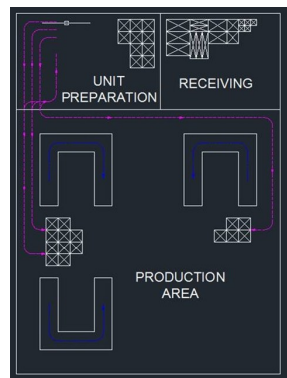
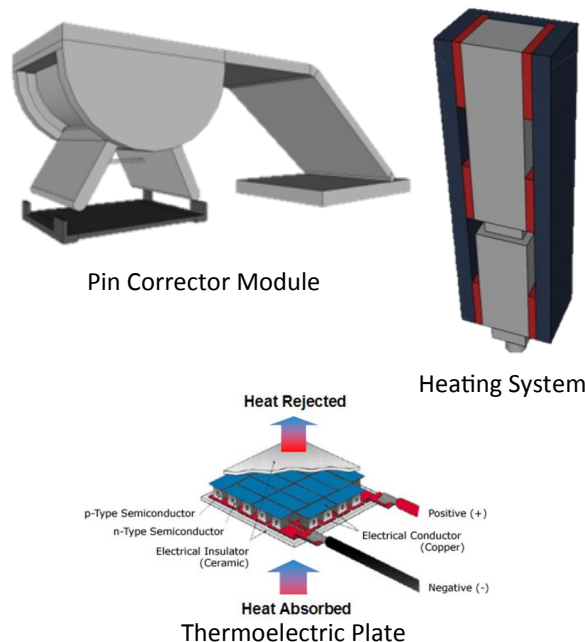
Observed Issues:

- Frequent defective parts
 - ◆ Causing broken dispensing needles
 - ◆ Lots of downtime due to replacement
- Loctite dispensing inconsistent

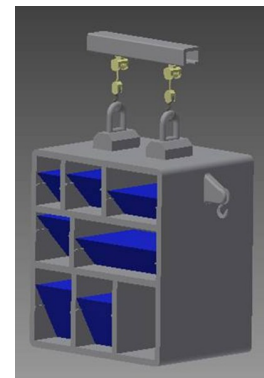
Proposed Solution:

- Design of Pin Corrector Module
 - ◆ Fixes any indented pins before introduction to dispensing station
 - ◆ Reduces long-term downtime by introducing small step in process
- Heating System Redesign
 - ◆ More precise and flexible heating system
 - ◆ Keeps Loctite at a more consistent flow from dispenser

Deliverables:



Rail Delivery System Layout



Kit Storage Unit

Mixed Model Line:



Observed Issues:

- Material took up lots of floor space
- Product specific workbenches
- Bulky automated test equipment

Proposed Solution:

- Rail Delivery System
 - ◆ Utilization of high ceiling space to store material
 - ◆ Simple and quick delivery of material to workbench
- Kit Storage System
 - ◆ Stores all material for one product in a kit
 - ◆ Move kits to workbench through the Rail Delivery System
- Non-Automated Testing Equipment
 - ◆ Discard bulky automated test equipment for smaller workbench size testers
 - ◆ Reduces valuable floor space