



CAPACITOR ASSEMBLY AUTOMATION

Team 6

Marissa Foreit Kyler Kazmierski Folaranmi Adenola Olayinka Oladosu
Sponsor: Mr. Walker Advisor: Dr. Moore Instructor: Dr. Shih



Motive: To create a streamline process to reduce the overall assembly time for the capacitors

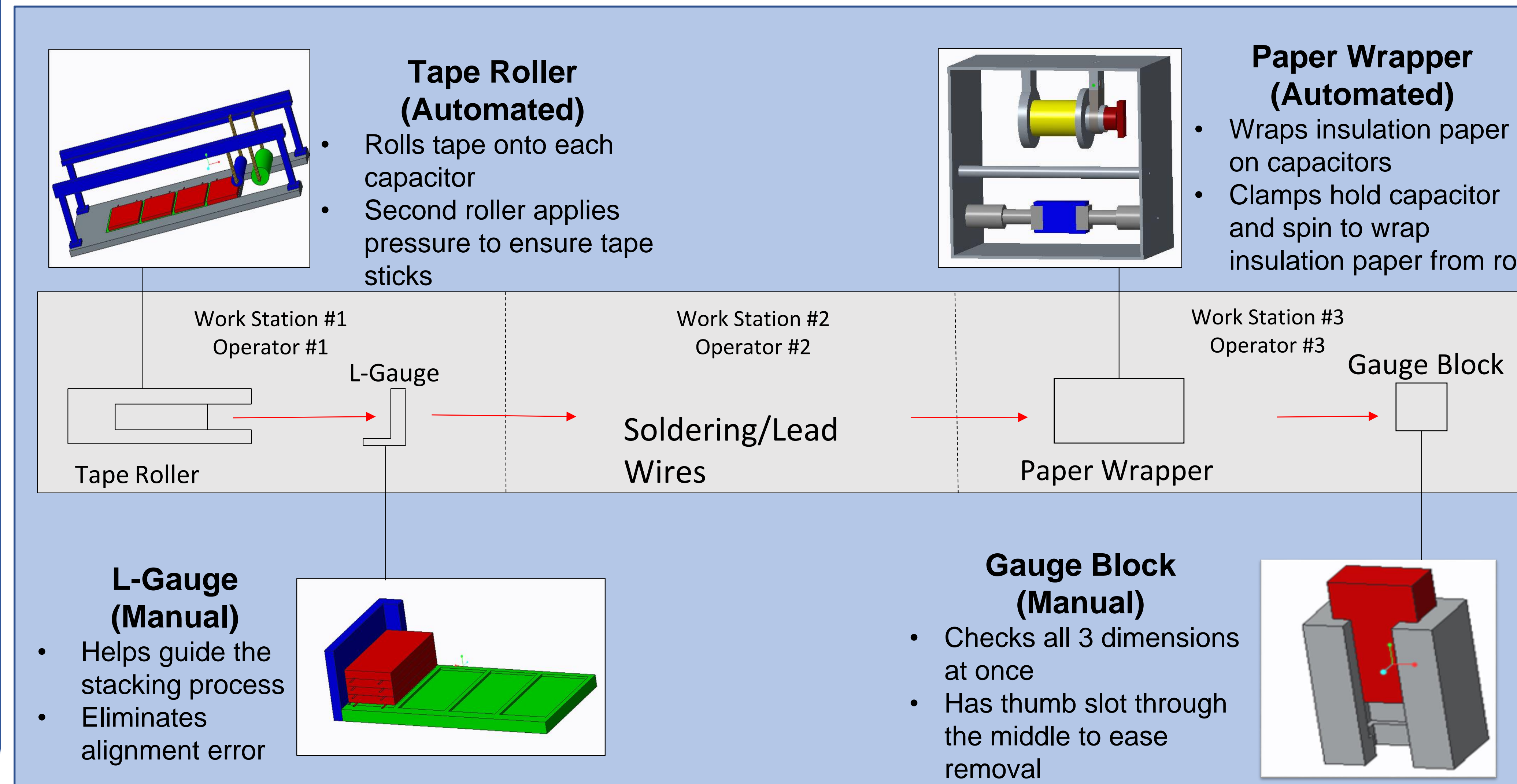
Abstract

Unison Industries seeks to improve their assembly line by automating the steps involved for capacitor assembly hence, reducing overall assembly time

Objectives

- Improve the assembly time of capacitors with some level of automation
- Design and develop prototypes for the assembly line
- Create a more efficient manufacturing process

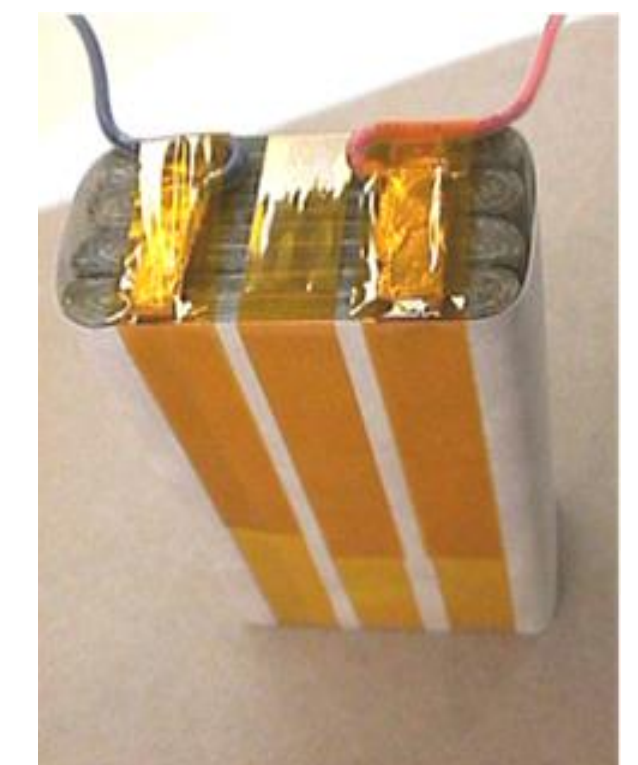
Improved Floor Layout with Updated Designs



Individual Capacitors



Final Assembly



Product Specs:

- 4 Capacitors
- Wrapped in insulation paper
- 1.38"x2.62"x4.25"

Results

- Tape Roller: Time reduced from 2 min 15 sec to 35 sec
- L-Gauge: Time reduced from 25 sec to 12 sec
- Paper Wrapper: Time reduced from 2 min 50 sec to 1 min 25 sec
- Gauge Block: Time reduced from 1 min 4 sec to 15 sec

Conclusion

- Time was reduced for each improved step
- Two automated and two manual
- A floor layout was created to help the streamline process

Acknowledgements

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