



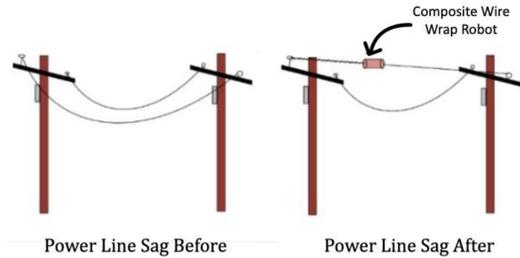
Composite WiRE Wrap Robotic System

Departments of Mechanical Engineering and Electrical and Computer Engineering
Team Wrap Tech



Project Overview

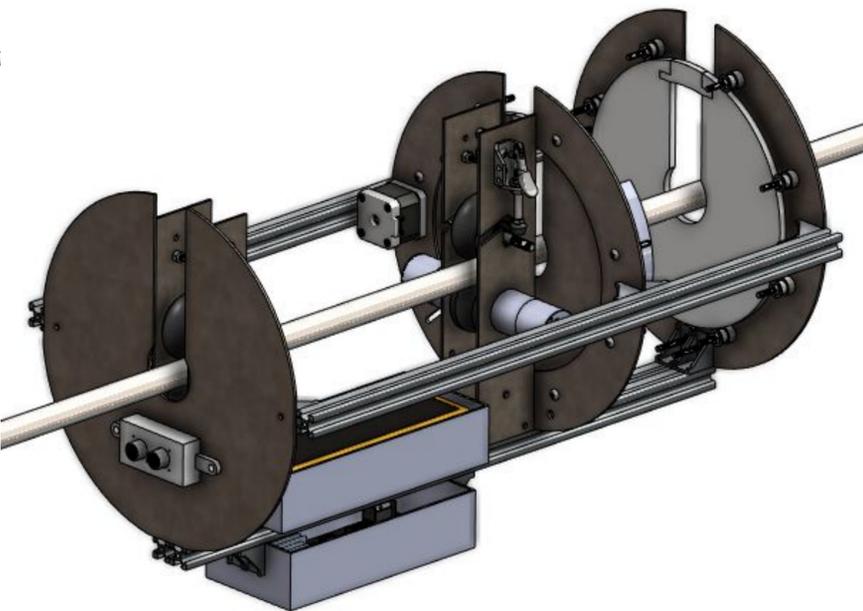
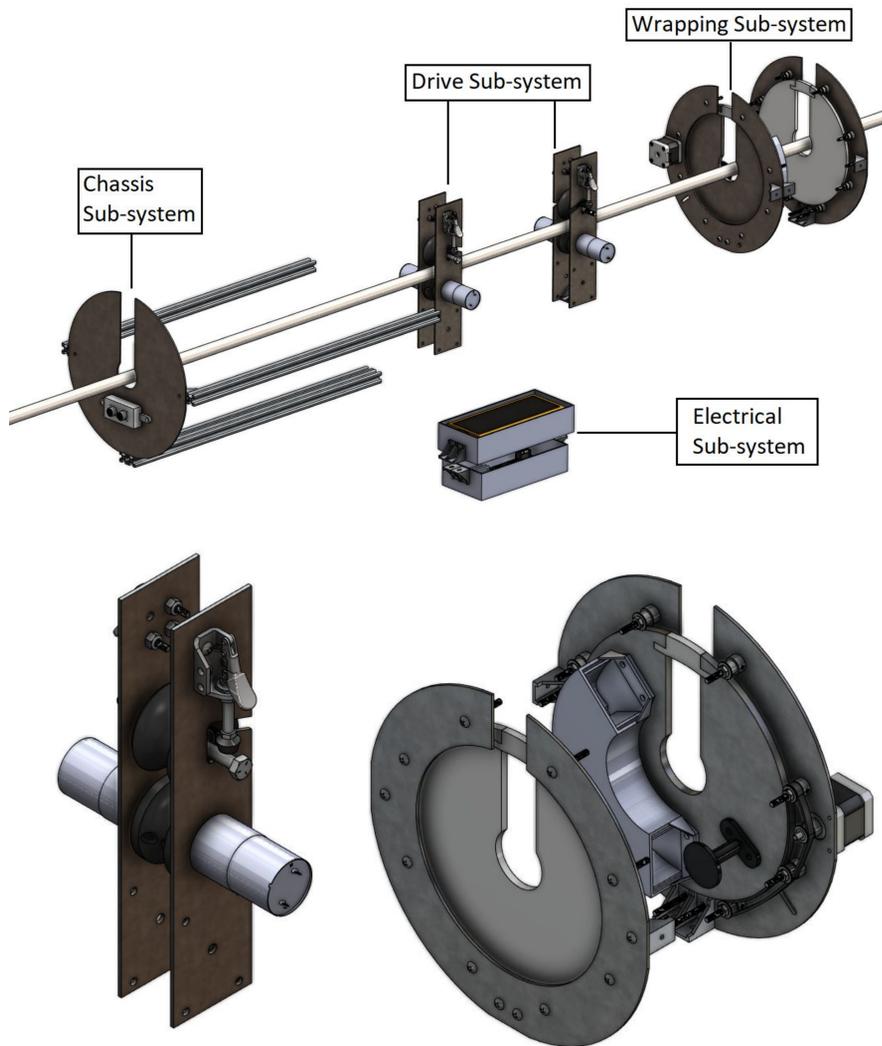
The goal of the Composite WiRE Wrap Robotic System is to create an automated solution to power line repair.



Our system applies carbon fiber fabric and resin to existing power lines for reinforcement and sag mitigation, ultimately leading to significant reduction in power losses across the entire grid.



CAD Models

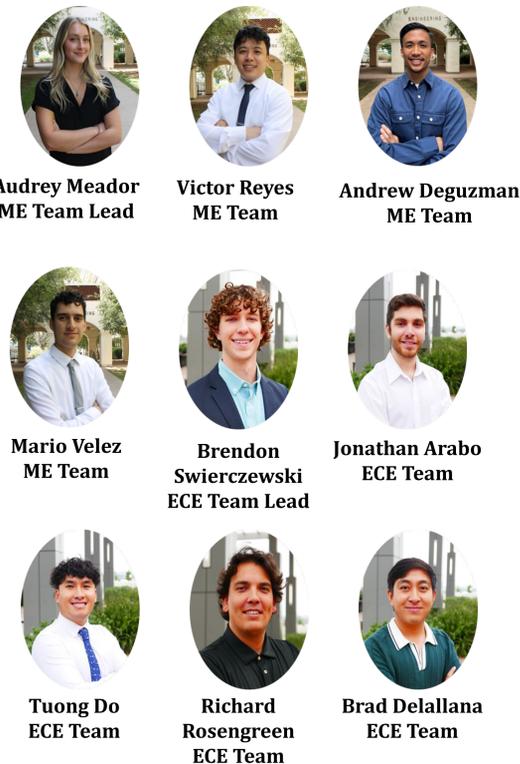


Prototyping

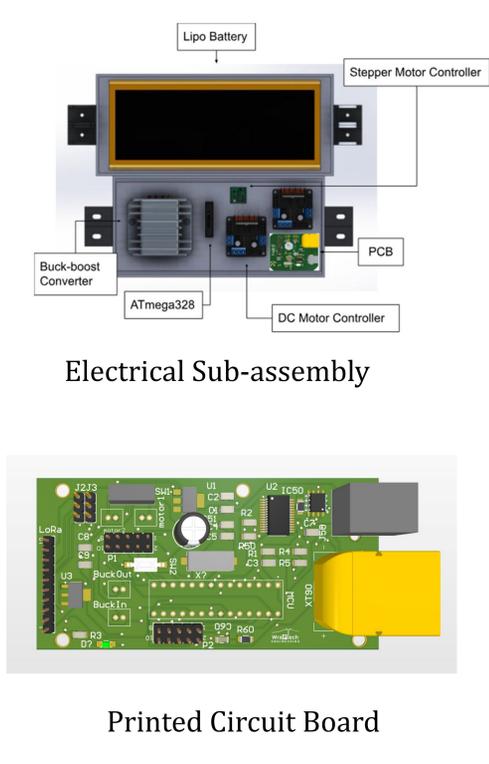


Cardboard Prototype Wrap Mechanism Prototype Wood Prototype

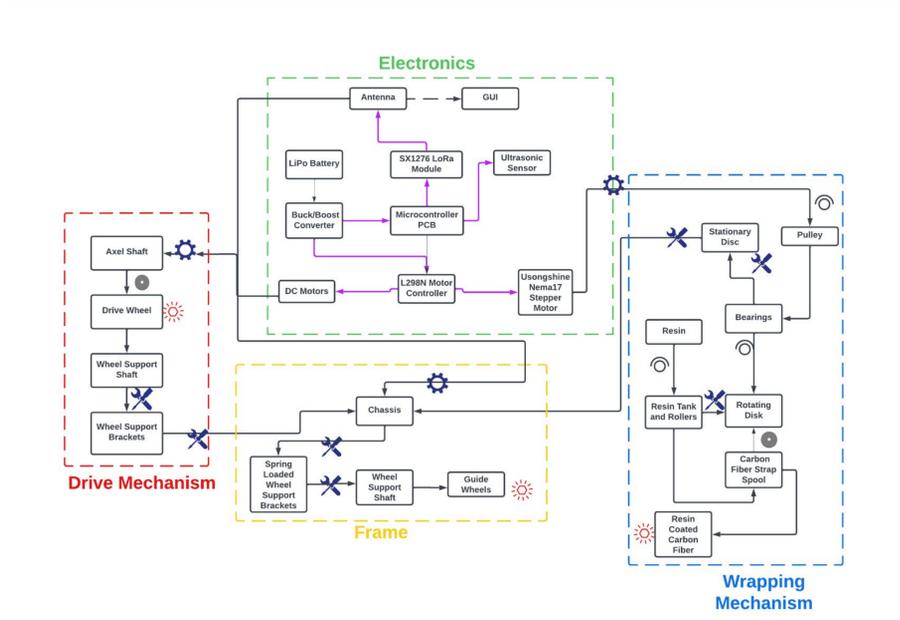
Team WrapTech



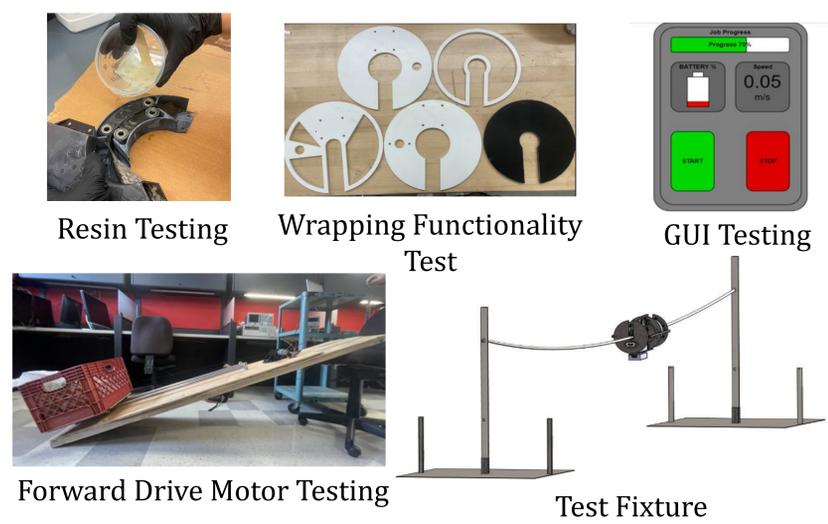
PCB Design



System Level Diagram



Testing



Acknowledgements

Team WrapTech Engineering thanks San Diego State University for helping and facilitating the build of our system:
San Diego State University
Dr. Scott Shaffar, Dr. Barry Dorr, Dr. Saeed Manshadi, Dr. Zahra Nili Ahmadabadi, Michael Lester, Mark Bruno

Spring 2024