

Pole Climbing Robot

Abstract:

- This project introduces the design and development of a pole climbing robot capable of autonomously traversing vertical poles or cylindrical structures.
- The primary goal is to create a versatile robotic system that can perform inspection, maintenance, or surveillance tasks on poles and similar structures in various environments.
- The project aims to demonstrate the feasibility and effectiveness of pole climbing robots for applications such as infrastructure inspection, telecommunication tower maintenance, and surveillance in challenging environments.
- By leveraging robotics technology, this project contributes to enhancing safety and efficiency in tasks that require vertical mobility and access.
- Through prototype development, testing, and performance evaluation, this project showcases the capabilities of the pole climbing robot and explores potential enhancements for future applications, including advanced sensor integration, wireless communication, and multi-robot coordination for collaborative tasks.

