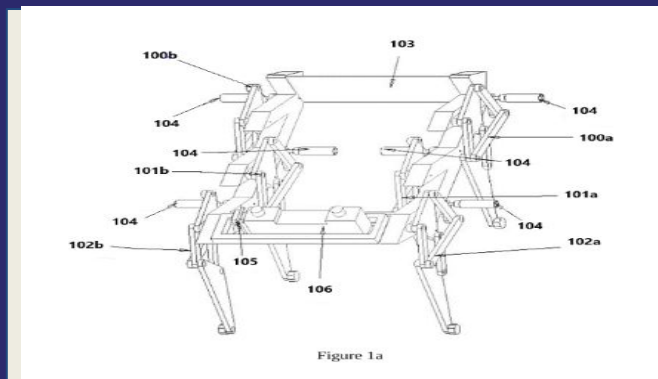


Granted IN460730

# Multi legged stair navigating device



## NEED

Current stair-climbing mechanisms for the mobility-impaired lack stability, dexterity, are complex, and not universally applicable to various stair types, limiting utility for paraplegics and quadriplegics.

## SOLUTION

The invention improves automated devices' efficiency and reliability through a system and method that efficiently handles outliers and noisy datasets for fault detection.

## INNOVATION

Technological advancement is achieved through a multi-legged device with a unique inclined frame design, incorporating individual motors and dual-sensor systems on each leg for dynamic pressure detection and distance sensing. This configuration enables adaptive staircase navigation, significantly improving stability, dexterity, and operational efficiency for enhanced mobility aid.

## AT A GLANCE

- Current TRL NA
- Funded by NA
- IPC A47B, B62D, B66F, E05F, G03B
- Domain  
Mobility assistance technology



## MARKET ANALYSIS

Market: Assistive devices for individuals with mobility impairments

CAGR: Not available

Potential Indian Clients: Rehabilitation centers, hospitals, assistive technology providers, government disability assistance programs

## WHY INVEST?

Stair navigating device

Robotic legs

Actuator

Theo-Jansen mechanism



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