Sideways Elevator System

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Executive Summary

WW Elevator is upgrading its elevator panel to allow sideways movement, improving flexibility in modern buildings. This new system will make the elevator travel smoother and more efficient, integrating advanced controls for precis lateral movement

The user panel will be user-friendly, safe, and compatible with current elevator designs. The document will outline the requirements for developing these systems, including diagrams of the current system and the proposed design.

System Requirements

They system requires the essential features and functionalities that the new sideways-travel elevator panel must support:

User interactions – how the user will operate the new panel to control both vertical and horizontal sideways movement.

Safety Features – Emergency stop functions, secure navigation and an observance of elevator regulations

Control Mechanism – The technology behind the elevator should be able to move sideways smoothly and accurately. And it needs to switch directions quickly and stay steady while traveling left or right

Performance Standards – Response times, power efficiency, and load capacity expectations

Performance Requirements

The elevator panel needs to work fast, smoothly, and safely.

Speed - Moves sideways at 2 meters per second

Accuracy - Responds to button presses in under 0.5 seconds

Safety - Stops fast if something is in the way

Reliability - Works almost all the time

Power Efficiency - Uses energy wisely to avoid wasting power

Design Constraints

The new elevator panel must fit inside existing elevator spaces and work with current systems. Safety rules must be followed, meaning materials, speed limits, and emergency functions have strict guidelines. The design should be user-friendly so the users can easily switch between up, down, left, and right movement.

Schedule and Budget

The Project will follow a 4-month timeline:

Phase 1: Researching and design phase

Phase 2: Prototype development and testing phase

Phase 3: Processing and safety checks

Phase 4: Final Implementation

The budget for this project is $2 Million which will cover software, hardware, labor, and safety testing. The money will be used to keep costs low while meeting all quality and safety standards.

Appendices

Modern elevator panel system shows the traditional vertical movement and control mechanism.

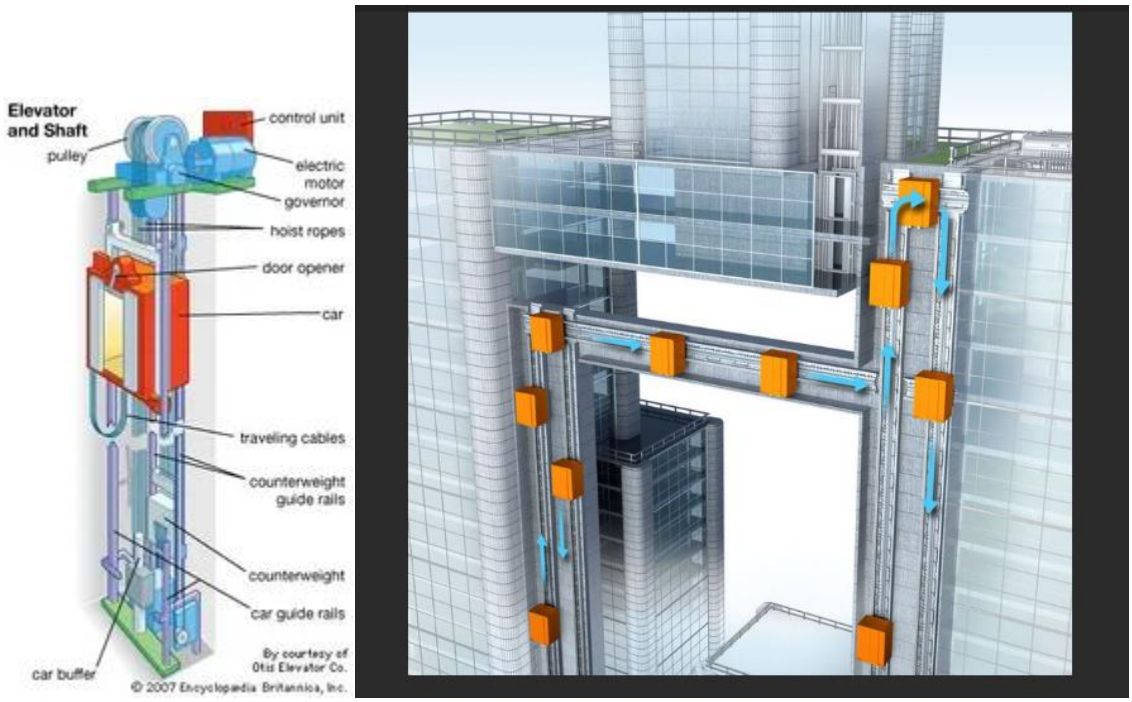

Figure 2 The new system which implements sideways movement control and track systems.

Figure 1Modern elevator panel system shows the traditional vertical movement and control mechanism.

References

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Murray, B. (2023, Decemeber 27). *Propmodo*.