Elevator outages are a major headache for both building management and tenants

There are over **900,000** elevators in the United States

In 2019, **27 fatalities** occurred in the US with over 10,000 injuries

The Elevator Maintenance Market Size is USD **5.6 Billion**

Otis Elevator Gaurdian

Team 8

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Sarah Jones

Age	: 42
Education	: Bachelors in Business Administration
Experience	: 10 years in facility management

Tech savviness

Low   High

Job title	Facility Manager
Location	USA
Company size	71,000
Industry	Elevator and escalator maintenance
Frustration	Unforeseen elevator outages, Reactive maintenance, Limited data insights, Budgetary pressures
Goal	Proactive elevator maintenance, Data-driven insights, Cost Savings, Improved tenant satisfaction

Market and Opportunity

01

The current market size of **$20-$25** Million dollars

02

With proper maintenance, an elevator will run effectively 75% of its claimed lifetime

03

B2B Space, where our solution can predict maintenance to **increase efficiency to 90%**

Our Solution

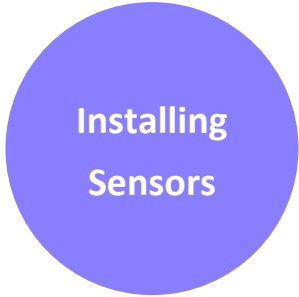**Regularly inspect elevator systems for compliance**

Implement proactive maintenance schedules

Utilize remote sensing technology

Safety Enhancement

Preventive Maintenance

Efficiency Improvement

Technical Feasibility

Installing Sensors

Easy access to internet and electricity

Inference

Taking pictures of equipment and comparing to normal wear and tear

Financial Viability

Costs

As low as $100

ROI

Save on repairing costs starting at $200 and potential replacements up to $20,000

User Acceptance

How would this benefit YOU and your customers?

01 **Store owners more willing to buy a a well maintained elevator; differentiate yourselves from competitors with this IoT.**

02 **Customers and store owners can sue you for negligence** if they experience distress from an elevator breakdown

03 Guarantee a **shopping experience for stores without displeasing interferences,** increasing customer satisfaction and sales in which they would continue to pay you.

Safety

"According to the CDC, an **average of 30 people die and 17,000 people get injured in elevator and escalator accidents in the U.S. every year.** Elevators are by far the most dangerous, **responsible for 90% of those incidents**, which affect both **members of the public as well as workers who install,** repair, maintain, or work near elevators." - Sepulveda Lawyer Group

01 IoT would ensure the safety of users by **proactively monitoring the condition of elevator components**.

02 Allows for timely interventions, **minimizing the risk of adverse events** and ensuring continuous use of elevators.

FATE Entanglement Avoidance

01 ***Fairness***: Use a dataset representing all types of elevators and wear stages

02 ***Accountability:*** UI displaying a clear history of the predictions, coupled with a protocol for human engineers to review and act on recommendations

03 ***Transparency:*** Explainable AI techniques that detail why certain equipment is flagged and how sensing works

04 ***Ethics:*** All data collected is securely handled and used strictly for predictive maintenance purposes. We avoid collecting any type of data with privacy issues (eg; indoor images)

Thank you