Created by KULDEEP; HEMANT; HARMANPREET SINGH; RIDHAM GILL

Key Partnerships

- Technology Providers: Companies supplying sensors and IoT devices (e.g., SensorTech Inc.).
- Research Institutions: Collaborating with universities for R&D on advanced monitoring techniques.
- Regulatory Bodies: Working with the Department of Transportation to ensure compliance with safety standards.
- Engineering Firms: Partnering with Structural Innovations Inc. for integrated solutions in new metro projects.

Key Activities

- System Development: Designing and developing the monitoring system and dashboard.
- Data Collection and Analysis: Implementing sensors on metro infrastructure and analyzing collected data.
- Customer Support: Providing ongoing support and training for users at City Metro Corp..
- Marketing and Sales: Promoting the solution through targeted marketing campaigns and industry events.

Key Resources

- Technology Stack: IoT sensors (e.g., strain gauges, accelerometers), cloud infrastructure (e.g., AWS), and data analytics software (e.g., Python-based algorithms).
- Expert Team: Engineers, data scientists, and software developers with expertise in structural health monitoring.
- Intellectual Property: Proprietary algorithms for predictive maintenance and data analysis.

Value Propositions

- Real-time Monitoring: Continuous assessment of structural integrity using IoT sensors.
- Data-Driven Insights: Predictive analytics to forecast maintenance needs, reducing downtime.
- User -Friendly Dashboard: An intuitive interface that displays real-time data, alerts, and maintenance schedules.
- Cost Savings: Reduction in emergency repairs and service disruptions through proactive maintenance.
- Regulatory Compliance: Ensures that operators meet safety standards set by government agencies.

Customer Relationships

- Consultative Selling: Working closely with City Metro Corp. to tailor solutions based on their specific infrastructure.
- Training and Support: Offering training sessions for operators on how to use the dashboard effectively.
- Feedback Loops: Regularly collecting feedback from City Metro Corp. to improve the system.

Customer Segments

- Metro Rail Operators: E.g., City Metro Corp. (a public metro operator in a major city).
- Government Agencies: E.g., Department of Transportation (responsible for infrastructure safety).
- Engineering Firms: E.g., Structural Innovations Inc. (a firm specializing in rail infrastructure).
- Insurance Companies: E.g., SafeRail Insurance (providing coverage for rail infrastructure).
- Passengers: Commuters who benefit from safer and more reliable metro services.

Channels

- Direct Sales: Engaging with City Metro Corp. through presentations and demonstrations.
- Partnerships: Collaborating with Structural Innovations Inc. to integrate monitoring solutions into new projects.
- Online Platform: A dedicated website for product information, case studies, and customer support.

Cost Structure

- Development Costs: Expenses related to software and hardware development (e.g., \$500,000 for initial development).
- Operational Costs: Ongoing costs for data storage, processing, and system maintenance (e.g., \$10,000/month).
- Marketing and Sales: Costs associated with promoting the solution (e.g., \$50,000/year for marketing campaigns).
- Personnel Costs: Salaries for the team involved in development, support, and sales (e.g., \$300,000/year for a team of

Revenue Streams

- Subscription Model: Monthly fees for access to the monitoring system and dashboard (e.g., \$2,000/month for City Metro Corp.).
- Consulting Services: Fees for additional consulting on infrastructure assessments (e.g., \$150/hour).
- Data Analytics Services: Offering advanced analytics and reporting as a premium service (e.g., \$500/report).



RailHealthM

Monitor rail network health effectively

□ RailHealth

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Issue Images





Recommended Solutions

- Inspect and replace faulty signal lights
- Conduct a diagnostic on track circuit
- Calibrate control relay systems

□ RailHealth

Identified Issues

Track Misalignment

High Priority

Vibration Anomaly

Medium Priority

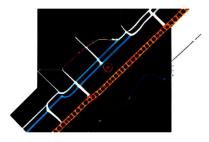
Bridge Displacement

Low Priority

Locations



Highlighted Components



Technologies Used



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Sensor Networks

Advanced Analytics

Predictive Models

Data Visualization





