FixIt

AI-based car preventative maintenance application
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Project Overview

- Vehicle Problems can be hard to diagnose
  - Unnecessary repair costs
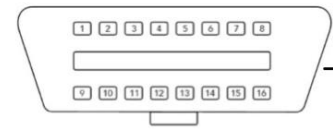 - Confusing codes
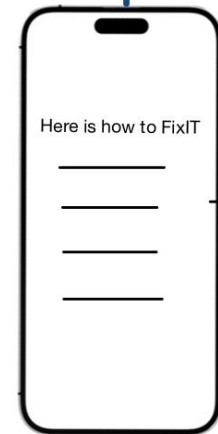 - All around frustration

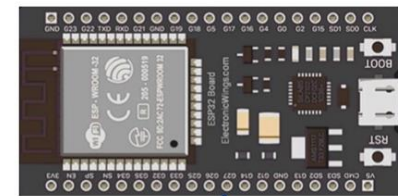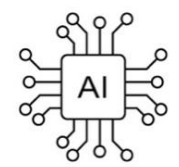P0456???

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Solution: FixIT

OBD-II Port (in your car)

OBD Read

Decipher Codes

Cloud, web, & AI

Here is how to FixIT

FixIT app advises on the issue

IDEALS: What we are doing well

- Communication Honesty
  - "Report work truthfully, without deception, and understandable to stakeholders"
    - Relevance
    - Approach
      - Documentation
      - Collaborating
      - Scheduling
    - Upholds Ethics

IDEALS: What Could Go Better

•Sustainability

- Relevance
  - Cloud Compute
    - o Generates 0.3% of global carbon emissions from data centers alone 4
    - o Consumes massive amounts of water for cooling (e.g., Google data centers use ~450,000 gallons per day) 10

  - Smartphones
    - o Requires energy-intensive mining for raw materials like gold, cobalt, and lithium 6

  - Cars
- Approach
- Change
  - Encourage users to engage in sustainable driving habits
  - Switch cloud compute to graviton processors source

Four Principles Chart

Principle	How FixIt Aligns
Beneficence	• **Improves vehicle diagnostics, saving users time and money** • **Reduces unnecessary, mechanic visits**
Nonmaleficence	• Avoids harm by providing accurate diagnostics. • Minimizes risks of misinterpretation or overcharges.
Respect for Autonomy	• Empowers users with clear insights to make informed decisions. • Provides customizable options for DIY or professional fixes.
Justice	• Makes diagnostics accessible to all car owners regardless of expertise. • Ensures fair pricing for advanced features

Ethical Issues

- Permission may be needed from website to scrape

- Less revenue for Auto Repair Shops

- AI false predictions

- What data is collected and how it's used

Conclusion

- FixIT will not replace mechanics, but will complement them

- It will help users by helping them keep up with their maintenance

- It will act as an intermediate solution that helps users troubleshoot their vehicle