Automated Valet Parking & Charging
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The V-Charge Project
- Automated parking and charging, e.g., at transportation hubs
- Car dropped off and picked up at special zone near entrance
- Vehicle steers to server-determined destination
- Only low-cost sensors (cameras, ultrasonic, …)

Mobile Demo Platform
A Camera and headlights
B PWM module
C Raspberry Pi SBC
D Energy Management Module
E Current collector

- High-level commands sent via WLAN
- Line following with OpenCV
- Energy Management Module
  - Charges batteries
  - Decides which battery to use
- Motors controlled using PWM