CampusCruiser:
Autonomous Campus Food Delivery

Robots on campus. Meals on time. Operations you can trust.
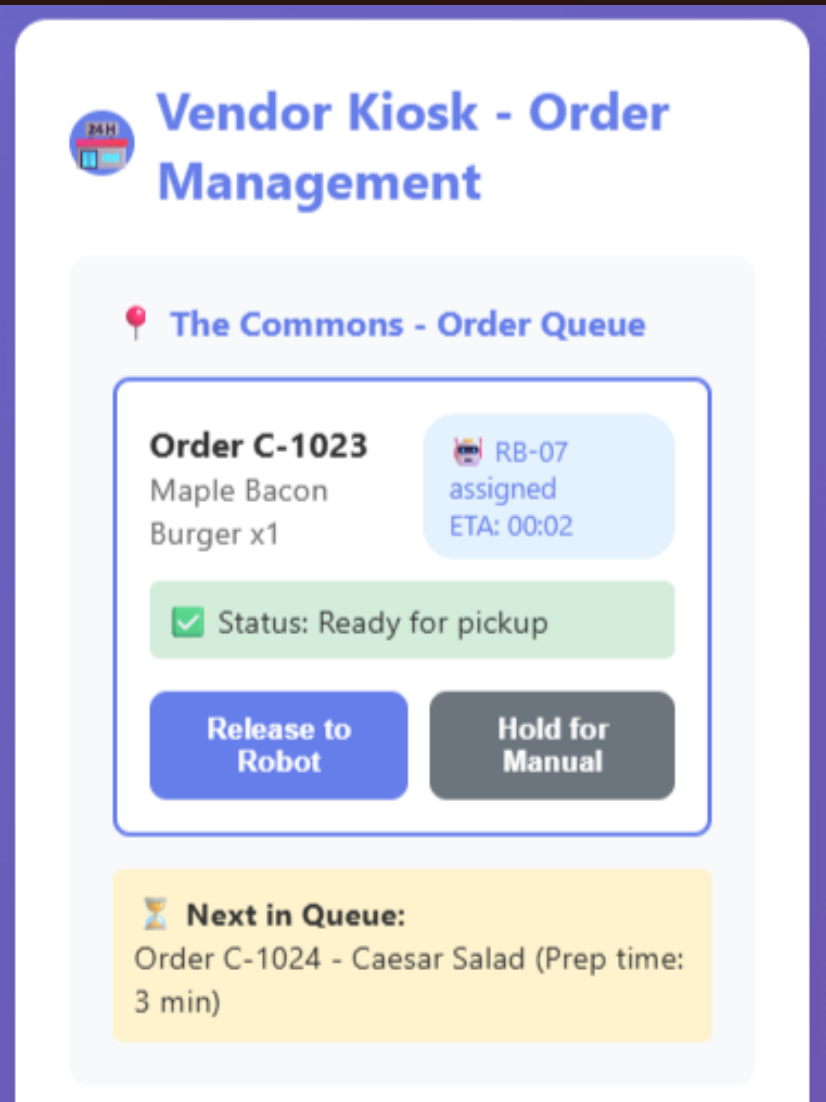
Group 6 Members:
a) Pranshav Gajjar
b) Aniruddh Bhagwa
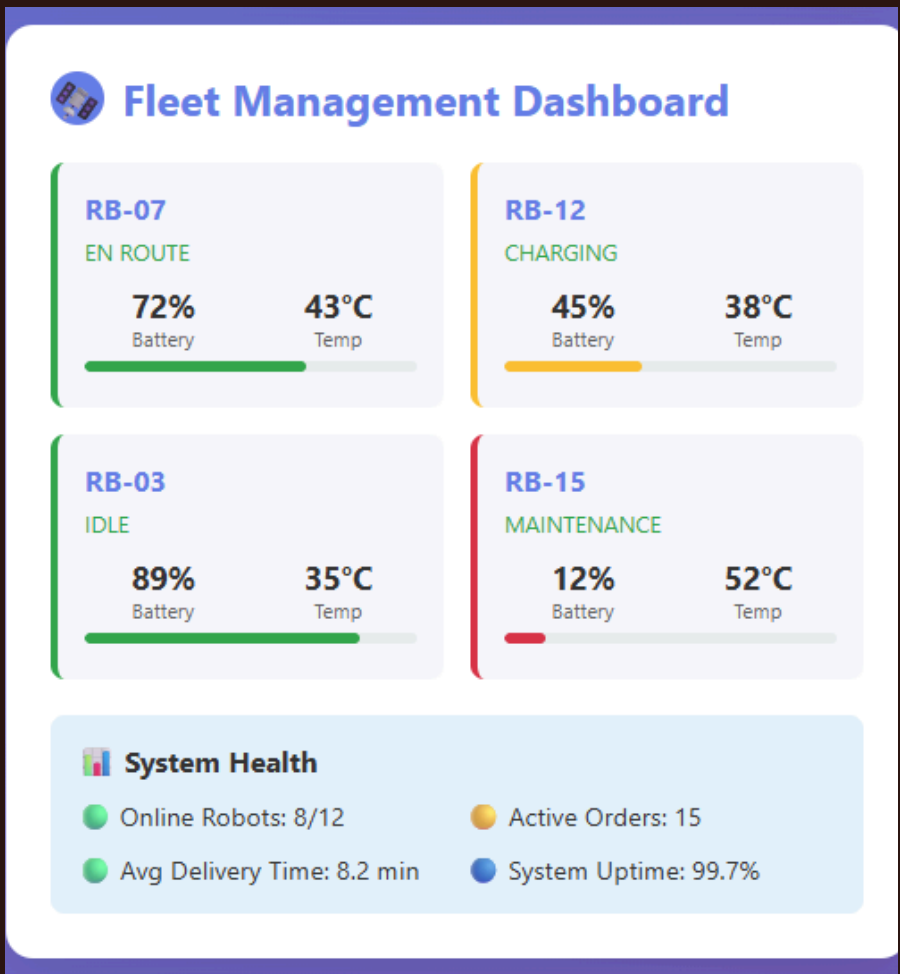c) Hardik Majethia
d) Ishan Patel

Core Features

- Student app: menu, checkout, live robot tracking.
- Vendor kiosk: quick order release & status.
- Fleet portal: map, per-robot telemetry, commands.
- Admin portal: geofences, incidents, analytics.
- Safety: geofences, alerts, manual overrides.

Vendor Kiosk - Order Management

📍 **The Commons - Order Queue**

Order C-1023
Maple Bacon Burger x1

🤖 RB-07 assigned
ETA: 00:02

✅ Status: Ready for pickup

[Release to Robot] [Hold for Manual]

⏳ **Next in Queue:**
Order C-1024 - Caesar Salad (Prep time: 3 min)

Mission Statement

CampusCrusier is a unified platform for campus food delivery powered by autonomous robots. Students order meals in seconds, vendors hand off with one tap, and robots deliver directly across campus. Universities gain safe, policy-compliant fleet operations, while engineers monitor real-time health, telemetry, and maintenance. The result: faster deliveries, lower costs, and transparent, reliable campus logistics.

Fleet Management Dashboard

RB-07 EN ROUTE	RB-12 CHARGING
72% Battery / 43°C Temp	45% Battery / 38°C Temp

RB-03 IDLE	RB-15 MAINTENANCE
89% Battery / 35°C Temp	12% Battery / 52°C Temp

📊 **System Health**
- 🟢 Online Robots: 8/12
- 🟡 Active Orders: 15
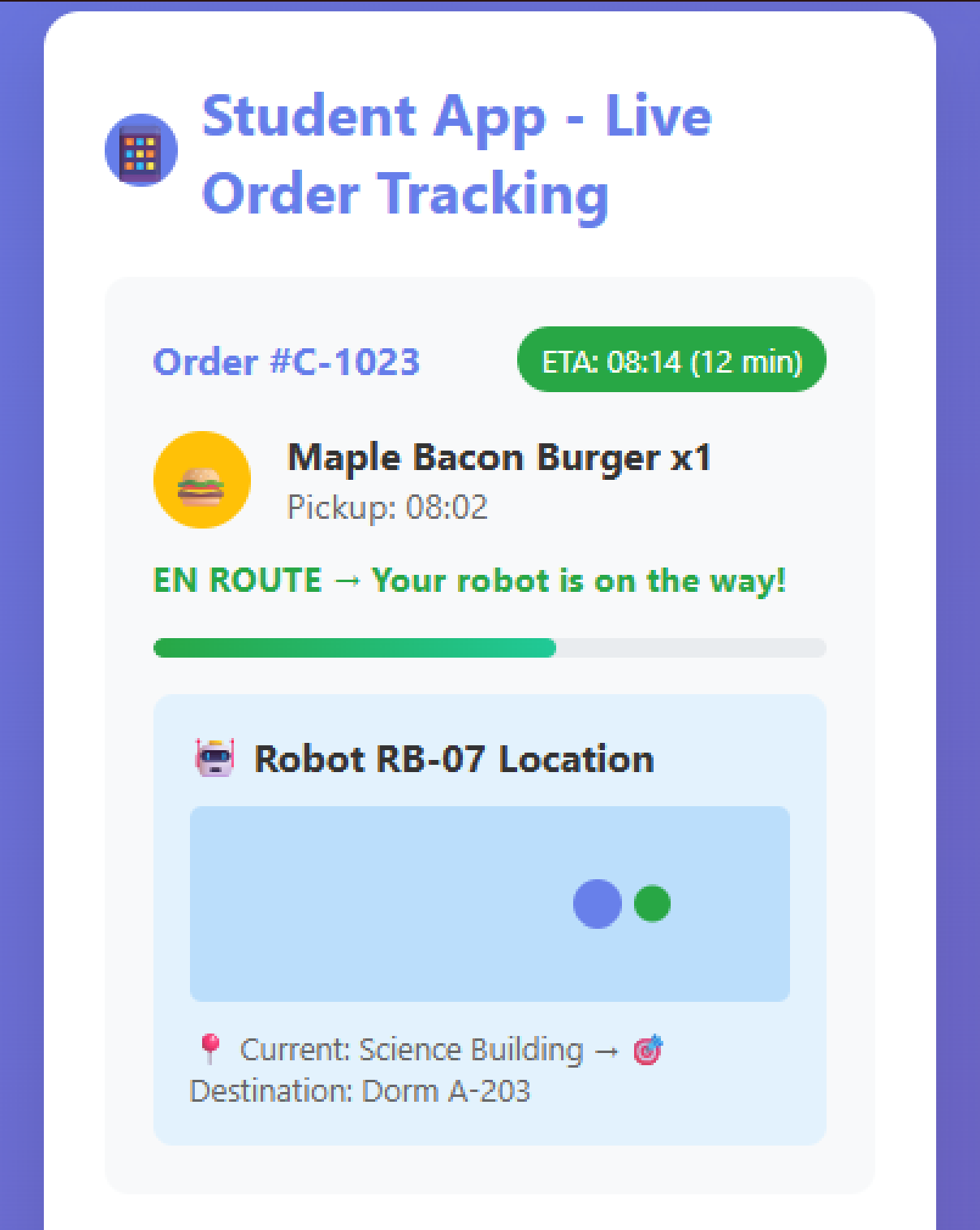- 🟢 Avg Delivery Time: 8.2 min
- 🔵 System Uptime: 99.7%

Milestones (Release 1):

- Core API & DB: Orders, Robots, Users, OpenAPI spec, Python server (FastAPI).
- Student app wireframes & basic React Native flow connected to API.
- Telemetry simulator + dev dashboard showing robot positions & battery.
- Vendor kiosk: order handoff flow + basic end-to-end demo

Student App - Live Order Tracking

Order #C-1023   ETA: 08:14 (12 min)

🍔 **Maple Bacon Burger x1**
Pickup: 08:02

EN ROUTE → Your robot is on the way!

🤖 **Robot RB-07 Location**

📍 Current: Science Building → 🎯 Destination: Dorm A-203

Milestones (Release 2):

- Robot health monitoring & alerting: Prometheus exporters + Grafana dashboards.
- Geofence & policy engine in admin portal; dispatch respects zones.
- Remote-control & maintenance workflow for engineers (maintenance mode).
- Pilot plan & safety checklist for controlled corridor deliveries

Stakeholders

- Students — order & track.
- Vendors — receive & hand off.
- Robots — autonomous fleet assets.
- Engineers — diagnostics & repair.
- University Ops — policy & safety.
- Admins — refunds, analytics.