Beta Presentation

SmartCook: Smart App For Induction Cooktop Cooking

The Capstone Experience

Team Whirlpool

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Project Overview

• Automatically detect what pan is being used for cooking
• Detect when ingredient has been added to pan using sensors and temperature
• Dynamically adjust recipe for user, improving auto progression
• Seamless and intuitive integration with app to make cooking easier for user
• Web scraper and database for easy recipe access
System Architecture

- Firebase (Database)
- Python Script (Web Scraper)
- Flutter (App)
- WebSocket
- Dev Environment
- Stovetop
- User
Manual Control

Tap and drag to build coil bridges

**Bottom-Right Cooking Zone**

Select a Temperature

<table>
<thead>
<tr>
<th>Power</th>
<th>150</th>
<th>175</th>
<th><strong>200°F</strong></th>
<th>225</th>
<th>250</th>
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Mid

Set Power Level

- HOME
- RECIPES
- ACCOUNT

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Pan Recognition

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Timers and Preheating

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Recipe Auto Progression

Add the cut broccoli into the pan

- Stir fry

Timer complete! Progressing in 4 seconds

Cooking complete!

Add chicken
What’s left to do?

• Features
  ▪ Web Scraping Integration into App

• Stretch Goals
  ▪ Sorting filters for recipes in app
  ▪ Running pan recognition during recipe, instead of only once
  ▪ Adding automation features to manual mode (ex. start timer on ingredient addition)
  ▪ Saving recipe state when app disconnects from cooktop

• Other Tasks
  ▪ Collect data from new pans to train model
  ▪ Make timers smoother
  ▪ Include box for pan ID
  ▪ Create pan not on cooktop feedback box
Questions?