



Sprint 0: Chick-Counting

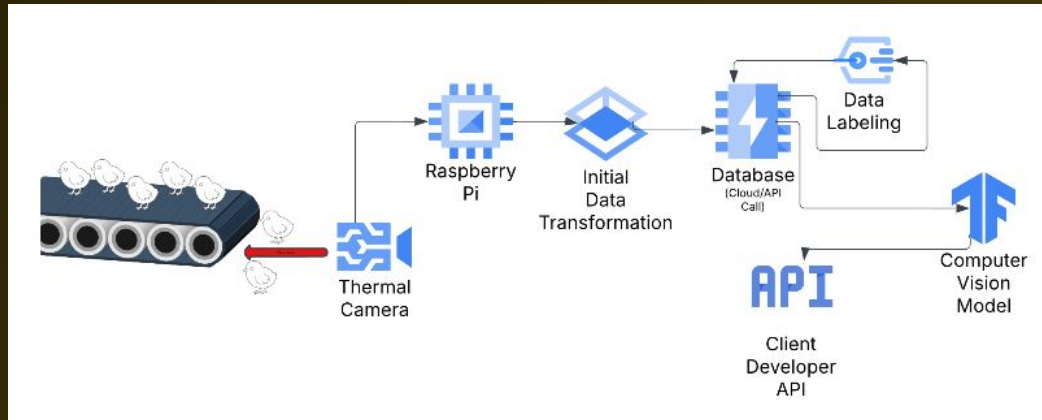
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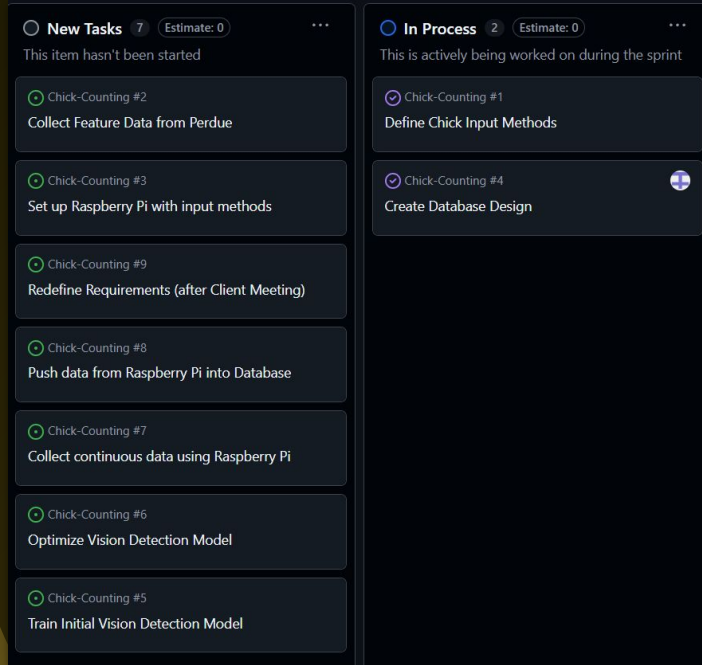
Project Overview

Goal: Detect & count the number of chicks falling off of a belt at Perdue Farms. Obtain an accuracy over 97% to improve operations.

Approach



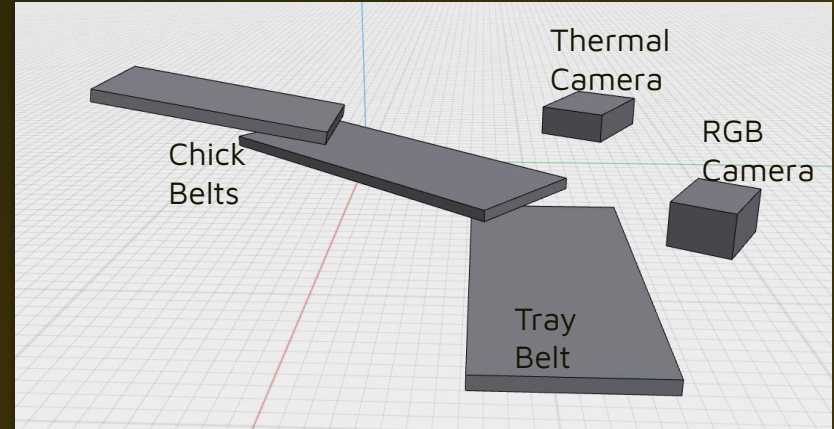
Product Backlog



1. Configure Raspberry Pi for data collection
2. Initial database design for data storage
3. Attach Raspberry Pi Modules & Write scripts to collect data
4. Visit Perdue Farms & collect data
5. Label Data
6. Store data in database
7. Train initial vision detection model
 - a. YOLO Image Detection Model
8. Allow Raspberry Pi to continuously upload data
 - a. Label
 - b. Create Mounting System at Perdue
 - c. Connect Raspberry Pi Remotely to DB
9. Refine & Optimize Vision Detection Model
10. Create client developer API (based on Client needs)

Goal for Sprint #1

- Initial Planning - Visit Perdue
 - Sign papers/determine visit times
 - Establish initial connections to Perdue representatives
 - Determine optimal camera layout
 - Redefine Constraints
- Initial Configure Raspberry Pi
 - Find Camera Modules
(Thermal, RGB)
- Determine Chick input methods
- Create initial database design
- Connect Pi to Database
- Collect initial data (local storage, contingent on accessibility to Perdue plant)



Slack Demonstration

GitHub Demonstration