Team Name: FurGuardian

Project Title: Pet Wellness

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Topic: Pet wellness app

Problem:
Caring for a pet goes beyond simply being present at home; it involves continuous attention to their health and well-being. However, many pet owners struggle to consistently monitor their pets' needs, whether they are home or away. Existing solutions, like apps that provide pet-sitting services, only address temporary care needs. There is a growing need for a comprehensive tool that supports pet wellness and health management at all times.

Solution:
Our app aims to provide a holistic, continuous approach to pet care, offering tools that help owners manage every aspect of their pet's wellness around the clock. Key features include:

- **Health Monitoring:** The app will track critical health markers such as activity levels, weight, hydration, and eating habits, providing insights that help owners keep their pets in optimal health.
- **Medical Record Management:** A digital vault will store all pet medical records, making it easy to access and share with veterinarians, ensuring up-to-date care.
- **Remote Feeding:** An autonomous food dispenser will allow owners to schedule or feed their pets at any time, whether at home or remotely.
- **Live Monitoring and Interaction:** Owners can watch live video streams of their pets and interact with them using two-way audio, helping them stay connected even when in different rooms or outside the home.
- **Wellness Alerts:** The app will send timely reminders and alerts for things like feeding schedules, medication, or even recommended activities based on health data.

By offering continuous monitoring, feeding, and health tracking, our app supports pet wellness at all times, ensuring that pets' needs are met whether their owners are with them or not.

Sensors: Human Detection IR sensor – used to make sure only pets are recognized.

DC motor – used to dispense the pet food

RFID sensor – used to detect and differentiate between multiple pets.

Liquid Level Sensor – used to detect if the pets water level is low.

Heart rate sensor – used to detect the pets heart rate.

Scale – to weight food.

Camera + microphone – for interacting with pets.

Plan to Collaborate: We plan to split the project into different features of the app and have a meeting with each other 2 times a week. With each person overseeing coding a feature we then come together during the meetings and discuss challenges we are having and consult the other group members for help.

We are adapting the app on android because android dominates the global market with over 70% market share. It is an open-source platform and has lower entry cost barriers. Developing an android app also means our app can run on a wide range of devices from budget phones to high end models.

Yes, we have considered making a google play account. First, we would make a google account and then go to sign up for a developer account and pay the one time $25 fee. Then we would fill out our developer profile and complete the registration.

Android development skills: Justin Chipman – 10

Imran Zafurallah – 8

Zane Aransevia – 9

Tevadi Brookes – 8

Collaboration so far: The team has spent hours working remotely via Discord with each other. We discussed many different ideas for our software app and ultimately found a common interest in a pet wellness app. From there we discussed how we would apply our hardware in the future for project and what additional feature we could include to make the application really stand out from the rest. All group members have suggested very viable and feasible ideas such as pet food sale notifications, Cameras to see the pet while not home, RFID tags to identify specific animals, etc.