

# Artemis: Adaptive Dependents Care System

**Problem:** Increase in economic crisis where both parents have to work, made it harder for them to keep an eye on their babies or pets.

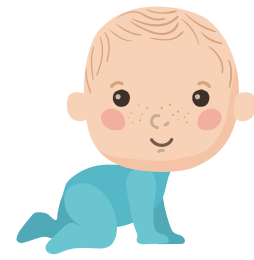
**Objective:** Design a device with advanced features able to track and monitor babies and pets and alert parents and individuals in abnormal situations.



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## Existing Solutions



### Baby Monitoring System

#### 1 Cubo AI



- ✓ Face Detection
- ✓ Danger Zones Detection
- ✓ Sleep Report

- ✗ Lacks a 2 way video feed
- ✗ Stationary camera
- ✗ No monitoring for baby's temperature

#### 2 DXR-8



- ✓ Active Noise Reduction
- ✗ No lullaby sounds
- ✗ No monitoring for the baby nor the room's temperature
- ✗ No Wireless technology



### Pet Monitoring System

#### 1 PetCube



- ✓ Pet detection
- ✓ Treat dispenser

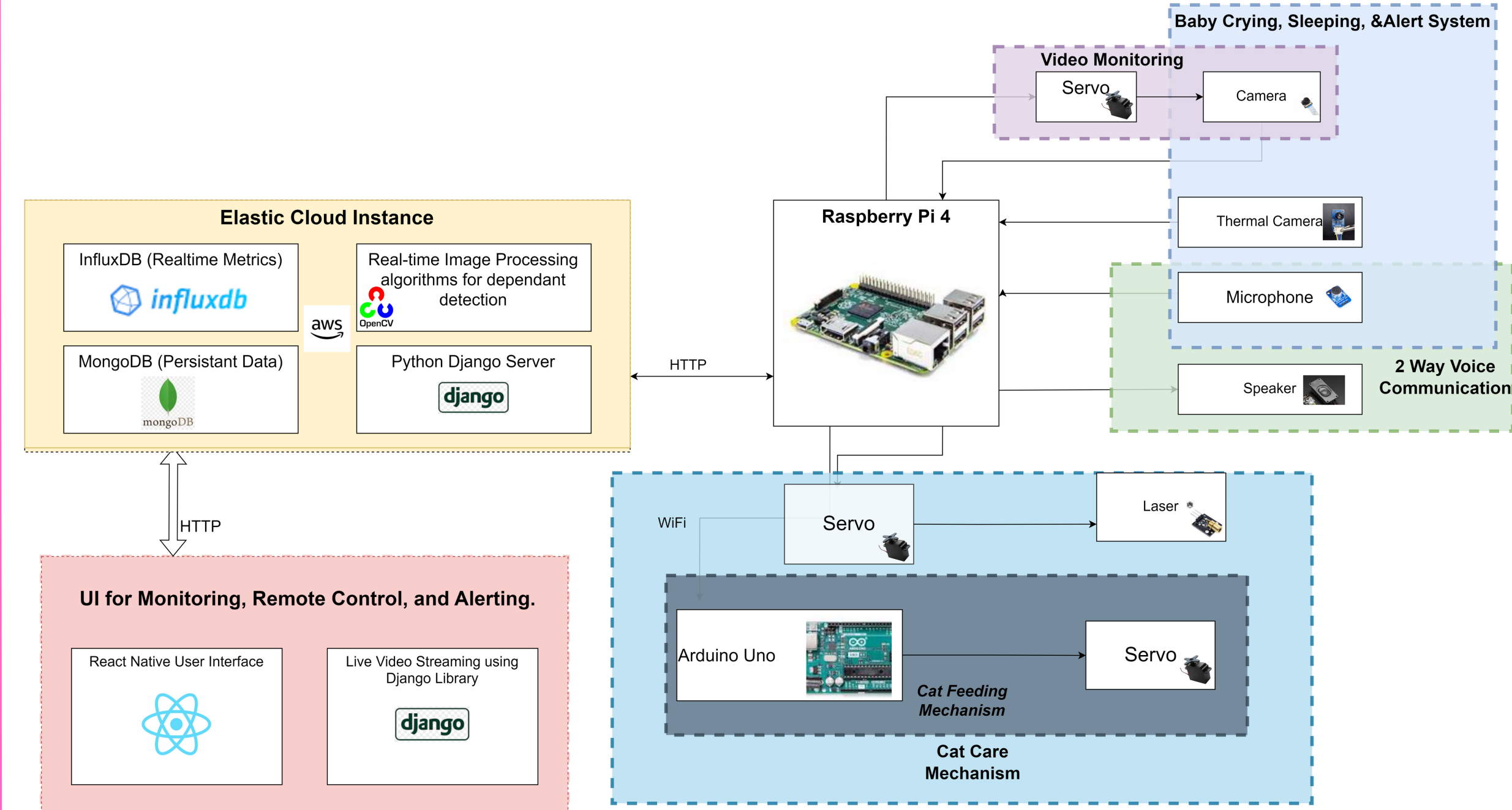
- ✗ Stationary Camera
- ✗ Blind Spots
- ✗ Limited interaction with the babies

#### 2 Ebo Air



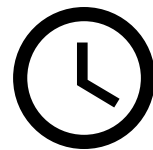
- ✓ Pet detection
- ✗ Human driven
- ✗ Unappealing to pets
- ✗ Retracted from the market

## System Architecture



## Project Constraints

Time: Spring 2023



Low Power Consumption



Scope



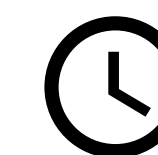
Weight <1 kg



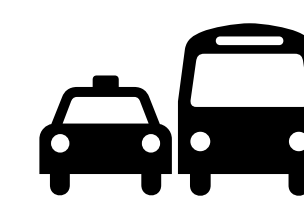
Thermal Camera



Processing time <300 ms



Modularity



1 baby or pet at a time

Price < 350 \$

