Division of Engineering Programs
EGG 408 - Senior Design Project I
Fall 2017

Who Let the Dog Out?

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PROJECT DESCRIPTION

The purpose of this project is to create an Internet of Things (IoT) pet door. This project has four aspects:

- Android app
- Embedded microcontroller
- Firebase cloud server
- Physical pet door

APP FUNCTIONS

With the Who Let the Dog Out app, owners will have:

- Pet door control capabilities (locking, unlocking, sleep timer)
- Pet activity data visualization
- Push notifications in response to learned databased information

DOOR FUNCTIONS

The Who Let the Dog Out pet door will:

- Sense pet collar with NFC
- Track pet activity
- Have sliding door mechanism

USES & APPLICATIONS

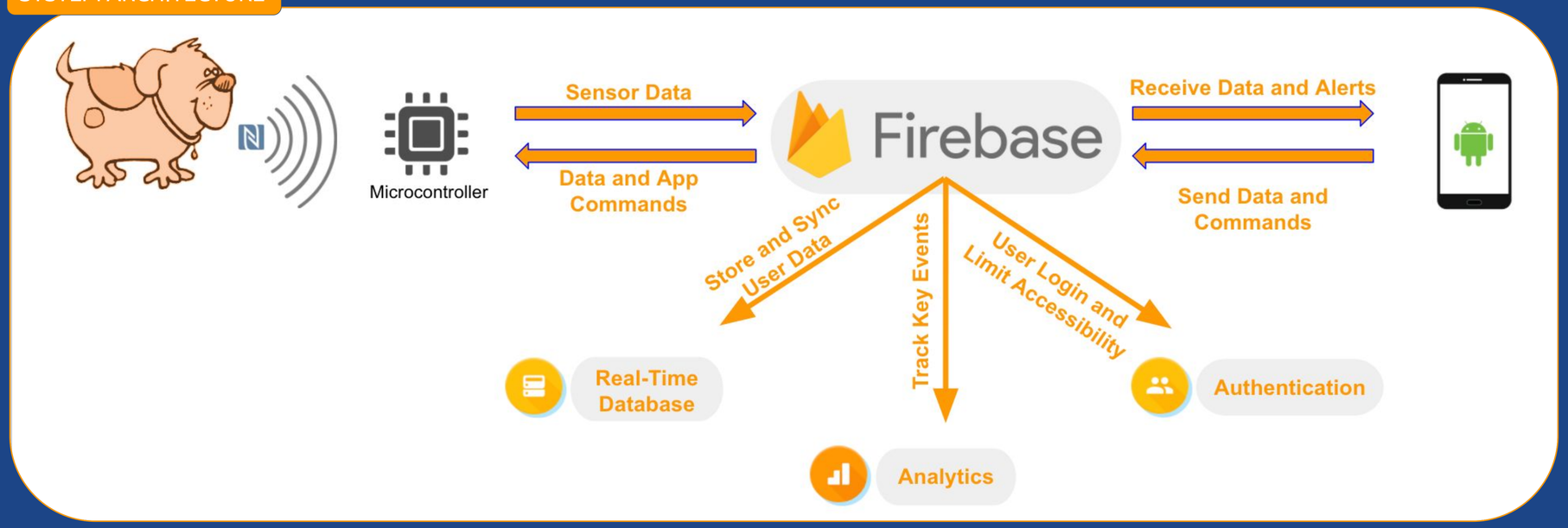
Possible implementation in:

- Animal shelters
- Grooming centers
- Kennels
- Adoption clinics
- Pet stores
- Residential

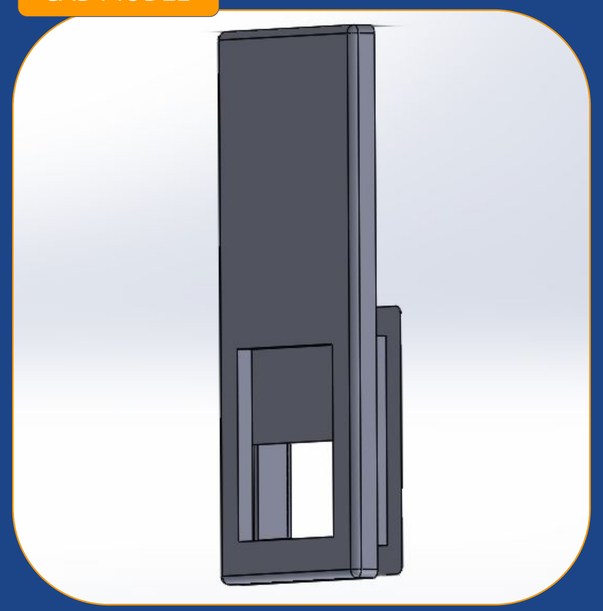
ENGINEERING CONSTRAINTS

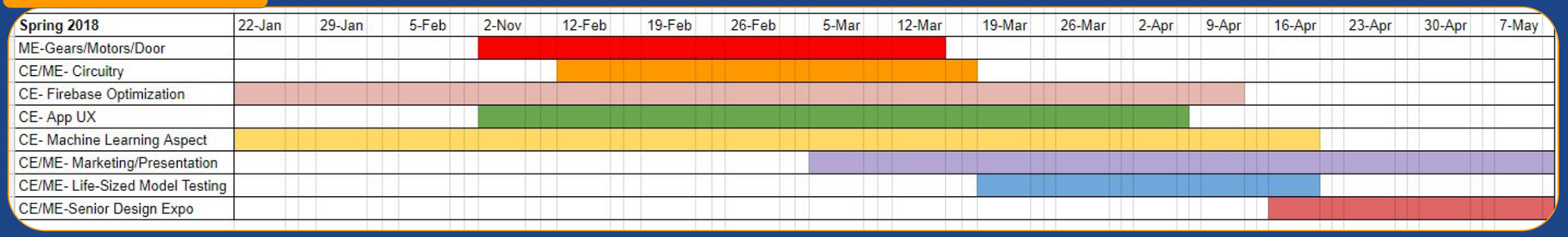
- Economic
  - Production cost ≤ $200
- Environmental
  - Consider insulation
- Health & Safety
  - No animal testing
  - Home security

SYSTEM ARCHITECTURE



CAD MODEL



TEAM MEMBERS & DR. IZADI

PLAN FOR SPRING 2018