Home Security System Demo 1

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About our Project

"With our product, we aspire to make a homeowner feel as safe in their home and to have them feel confident in their ability to protect their own home."

This inspired us to make a Home Security System using Facial Recognition. Our security system implements facial recognition to enhance common security systems to give homeowners better home security.

Our product includes two main units:

1. User Friendly Mobile App
2. Arduino Base Unit

Why Facial Recognition?

Facial Recognition allows another layer of security for the user:

- Users can have flexibility to choose who they want to allow access to their home or not.
- User can have the reliability to know whenever a non-registered member is entering the house.
- User can store as many members as they want in their system and remove users as they wish depending on their lifestyle
- Automates the process of securely unlocking a home entrance

Project Features

Mobile App

- Allows for user to directly control home security system features:
  - Toggle between home and away mode
  - Turn off alarm
  - Toggle Lights on and off
  - Manually take pictures
- Easy access to add and remove users to facial recognition database
- Multiple user accounts can be made and user privileges can be edited

Arduino Base

Arduino Base includes:

- Motion sensor to detect movement outside of the house
- Camera to take picture of person outside house
- Accelerometer to detect opening and closing of the door
- Alarm to sound if intruder walks inn
- Lights

Product Roadmap

04 User Creation and profiles
Functionality to add multiple users and privileges.

Mar 1st – March 22nd

06 Lights and Alarm control
Be able to control the lights and alarm through the mobile app and have the alarm and lights triggered from the gyroscope. Mar 10th – Apr 1st

03 Facial Recognition
Have the software ready to use and be able to recognize different faces.
Feb 20th – Mar 22nd

07 Take Picture
Be able to take pictures remotely and view them from the mobile app
Mar 22nd – April10th

01 Mobile App UI
Have the mobile app UI fully completed.
Feb 1st – Mar 10th

05 Motion sensor Functionality
Allow the ABU to take a picture when the motion sensor is triggered.
Q1 20YY

08 Build Final demo
Put together the final model to simulate and demo the entire system.
Apr 7th – Apr 22nd

02 Mobile App Functionality
Have the mobile app functional features complete
Feb 1st – Apr 15th

Feb   Mar   Apr   May

2019