

A hand holding a small model house, symbolizing home security. The house is a two-story structure with a brown roof, a chimney, and a balcony. The background is a blurred image of a person's face.

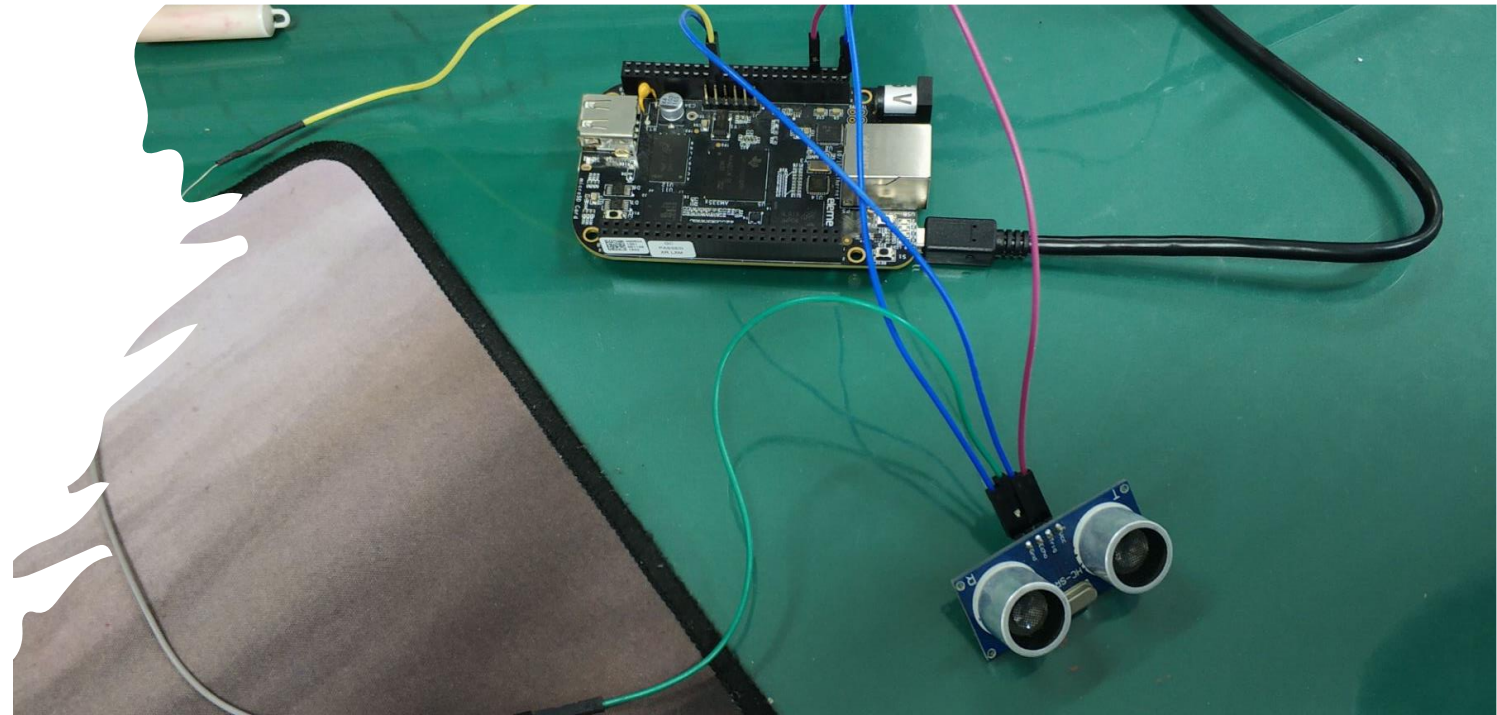
Home Security System

Noidea

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And one funny
but unrealistic:
**Anti-
Mosquitos/Flies
Laser Gun**



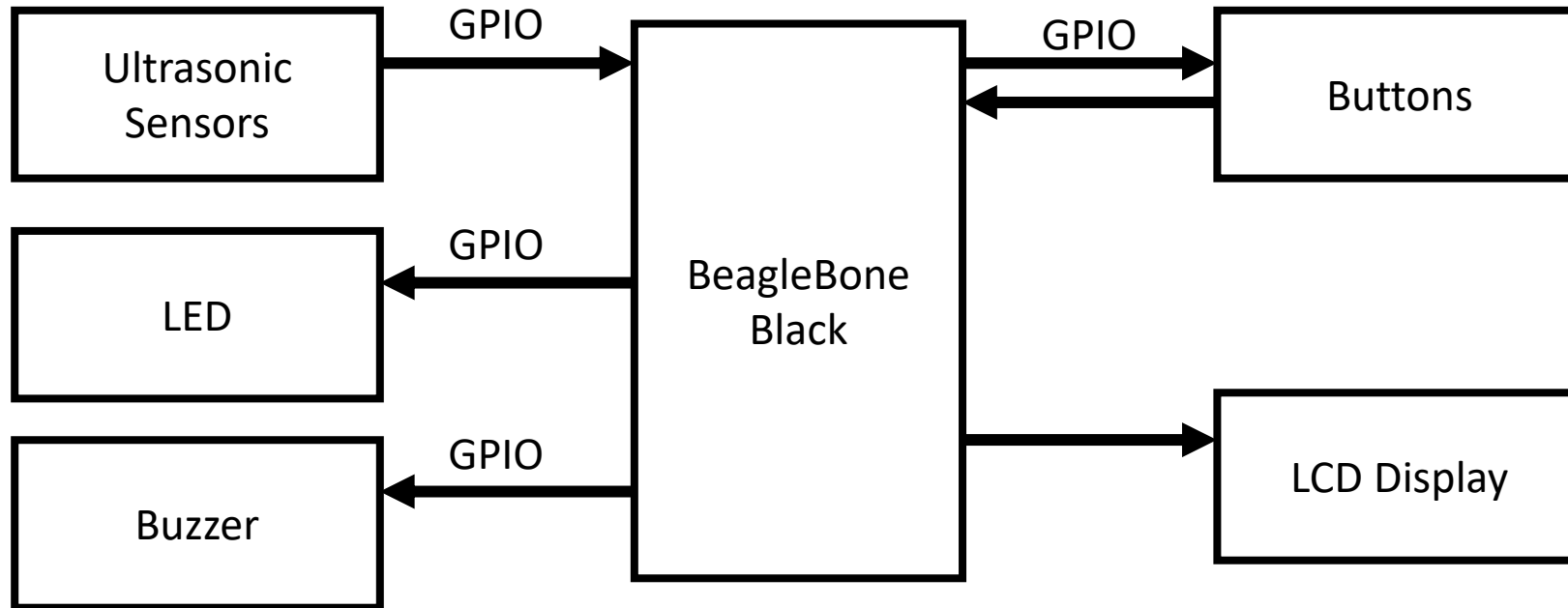
But eventually we decided to do this **Home Security System**



Project Description and Equipment

- **Summary:** Our objective is to develop a system that can detect any unauthorized access to a property. The system will feature a control panel with buttons that allow users to switch between different modes, and an LCD screen that displays the current mode and security status. We will use two ultrasonic sensors, which will be positioned at the entrances to the property. When an object is detected by the sensors, the system will respond accordingly based on the current mode set by the controller. For instance, a green light may illuminate if the object is authorized, while a red light accompanied by an alarm will be triggered if the object is unauthorized.
- **Equipment needs beyond the provided kits:**
 1. HC-SR04 Ultrasonic Sensors *2 (Already have)
 2. Red and green LED *2 (Already have)
 3. Buzzer *1 (Already have)

System Architecture



Milestones, timeline, and breakdown of tasks



Milestone:

- Establish ultrasonic sensor data reading program 04/18 Yu Guo
- Build control and mode setting 04/22 Sicheng Chen
- Enable LED and Buzzer 04/24 Yu&Sicheng
- User Interface design 04/25 Yu&Sicheng

Good-to-Have Items (Time Permitting):

- Security code and user login
- Remote Internet access control