

## Inputs → Step 1(A)

1. Our project is a brown field project

- ↳ we're building off of "abandoned land" and we can pull from other architecture
- ↳ Well understood domain, not "novel"

2. Non Functional Requirements

- Reliability → System needs to be functional 100% of the time while providing constant surveillance
- Failure transparency → if system does fail, reports to user quickly + efficiently
- Scalability → Allows systems to be efficiently added
- Disaster Recovery → Attempt to recover by all means either by system reboot or by transferring responsibility to police

Constraints — to be considered (I want to discuss)

- One/little Admin users
- System needs to be Mobile Phone Accessible
- Security is top priority

Concerns →

- System needs to be cloud or outside database oriented to not put much pressure on mobile phone
- Baseline cybersecurity to prevent attacks + collection of user data

## Assumptions

1. User has preinstalled hardware from 3rd party
  - e.g. cameras, door locks, etc.
2. That system has connections to hardware either that our product is that hardware's main driver software or we have access to driver
3. Security of server hosted on cloud

## Use Cases —

UC-3, 5, 7

Goal → establish overall system arch. + Connections to 3rd party

## Step 2A

## Step 3A

### Step 3 A

- Decompose → top down approach
- First iteration → designs top level arch.

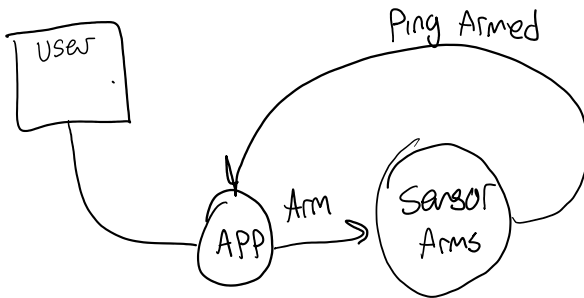
### Step 4 A

↳ layered system Arch.

→ Arch. viewpoint → Physical view

• Communications

- Dataflow for model based (physical object comm)
- Event based interaction (user → app → object)



→ Component diagram

### Step 5 A

User Interface

User interface management

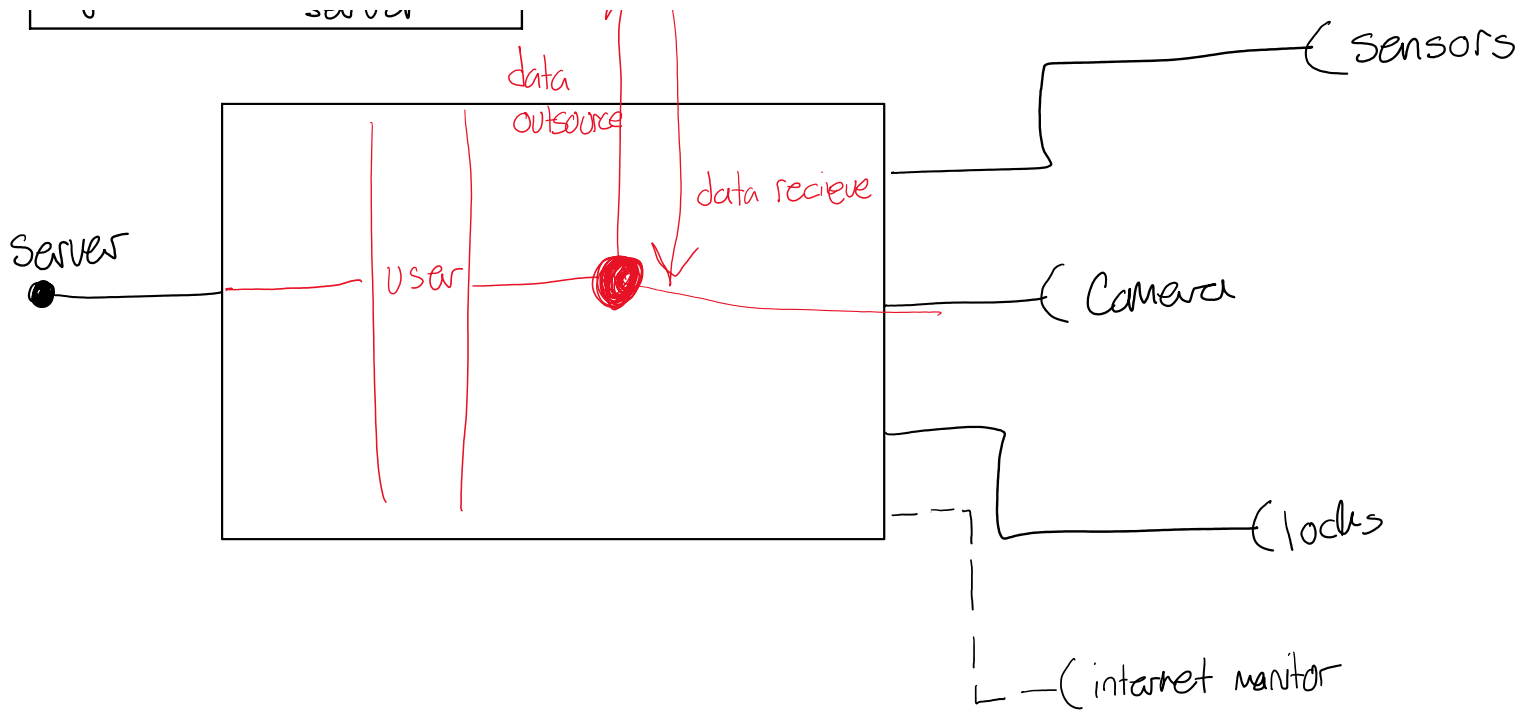
Out source to hardware  
/ software

Business logic + data  
Flow control

System support (OS, database)  
server

data

sensors



## step 7A

- specify component / overall system
- Data flow specification

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