AgriSmart

Smart Solutions for Climate-Resilient Agriculture

Leveraging Technology to Mitigate Climate Change Impacts

Meet The Creators

Chan Zi Hao
Administrator Head/Resource Lead

Rui Yi Gan
Project Manager/Developer

Alvin Aw Yong
Creative Designer/Developer

Guo Chenrui
Technical Executive

"Together, our diverse skill sets and shared passion for promoting efficient agricultural practices drive us to create an app that empowers users to optimize their farm operations"

Our Defined Problem Statement

Farmers faced challenges in monitoring and managing crop health, soil conditions & environmental factors, leading to suboptimal yields and resource use
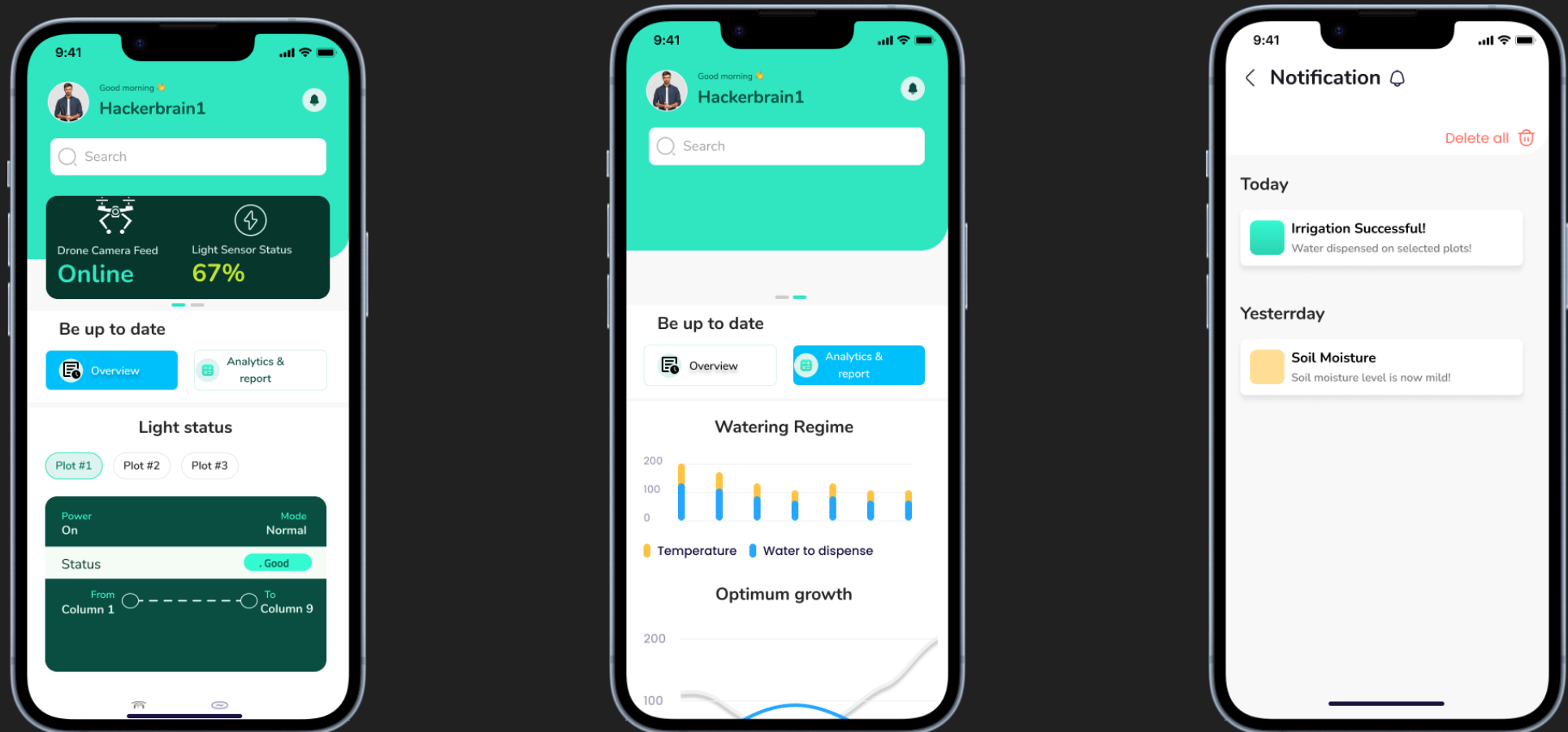
Our Solution

AgriSmart is an innovative application that aims to help tackle climate change through the use of precision agriculture, sensor integration, and automated systems.
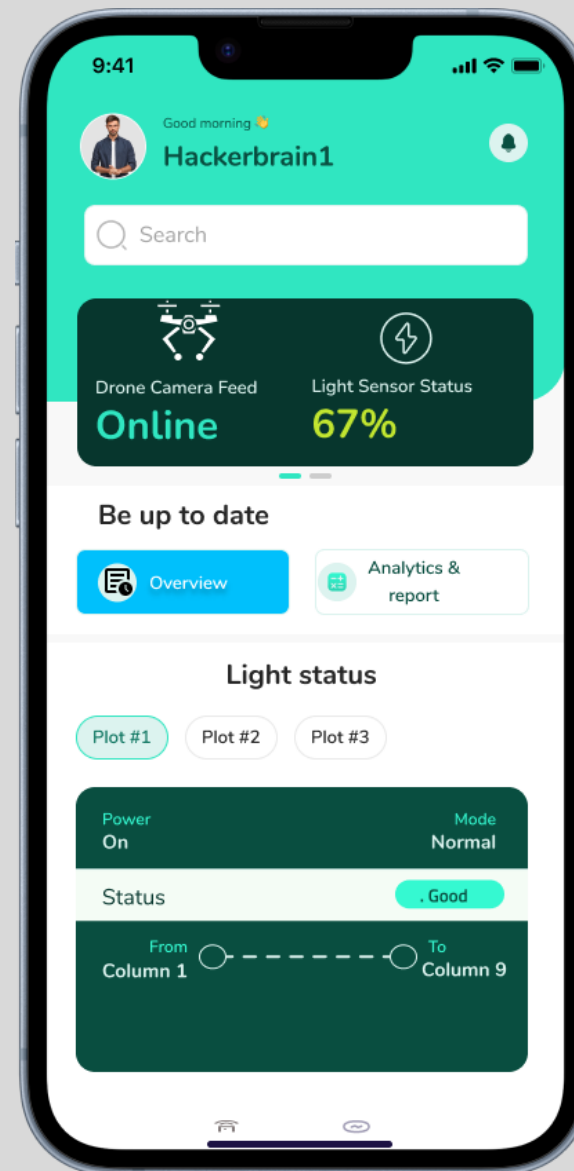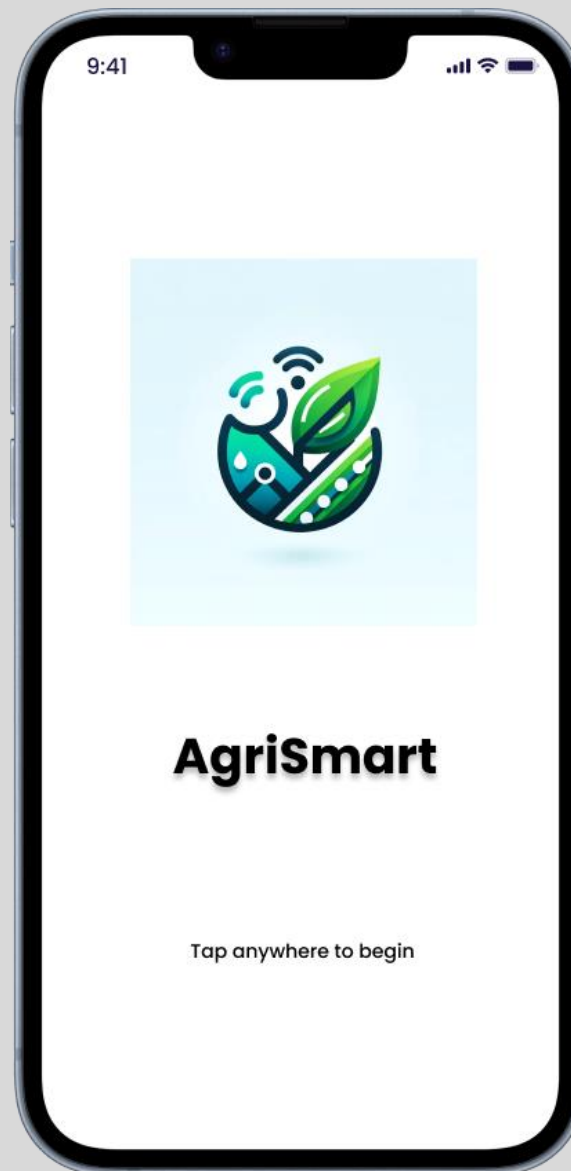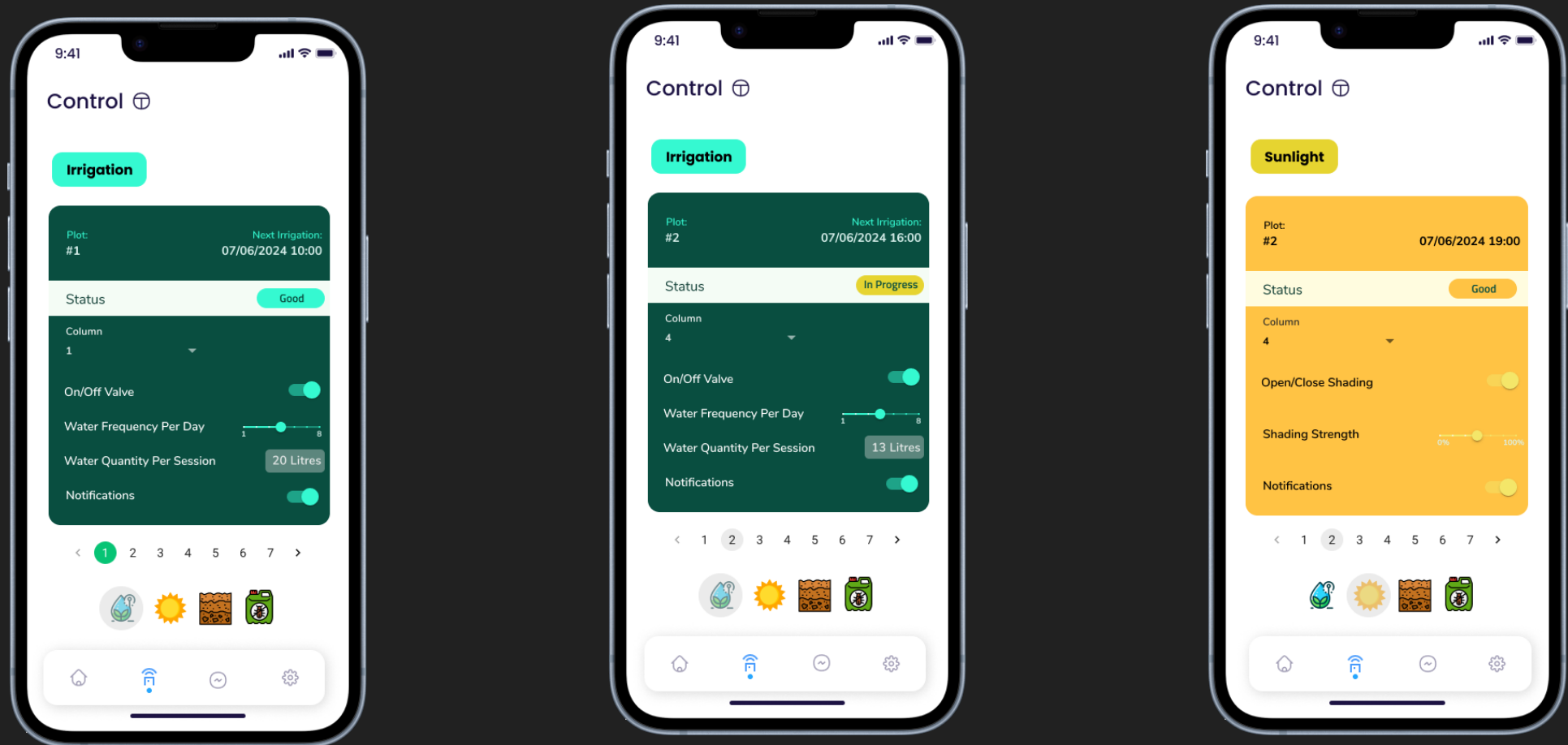
Feature: Management Dashboard

Feature:
Automated Variable Precision Control

Feature: Social and Knowledge Forum
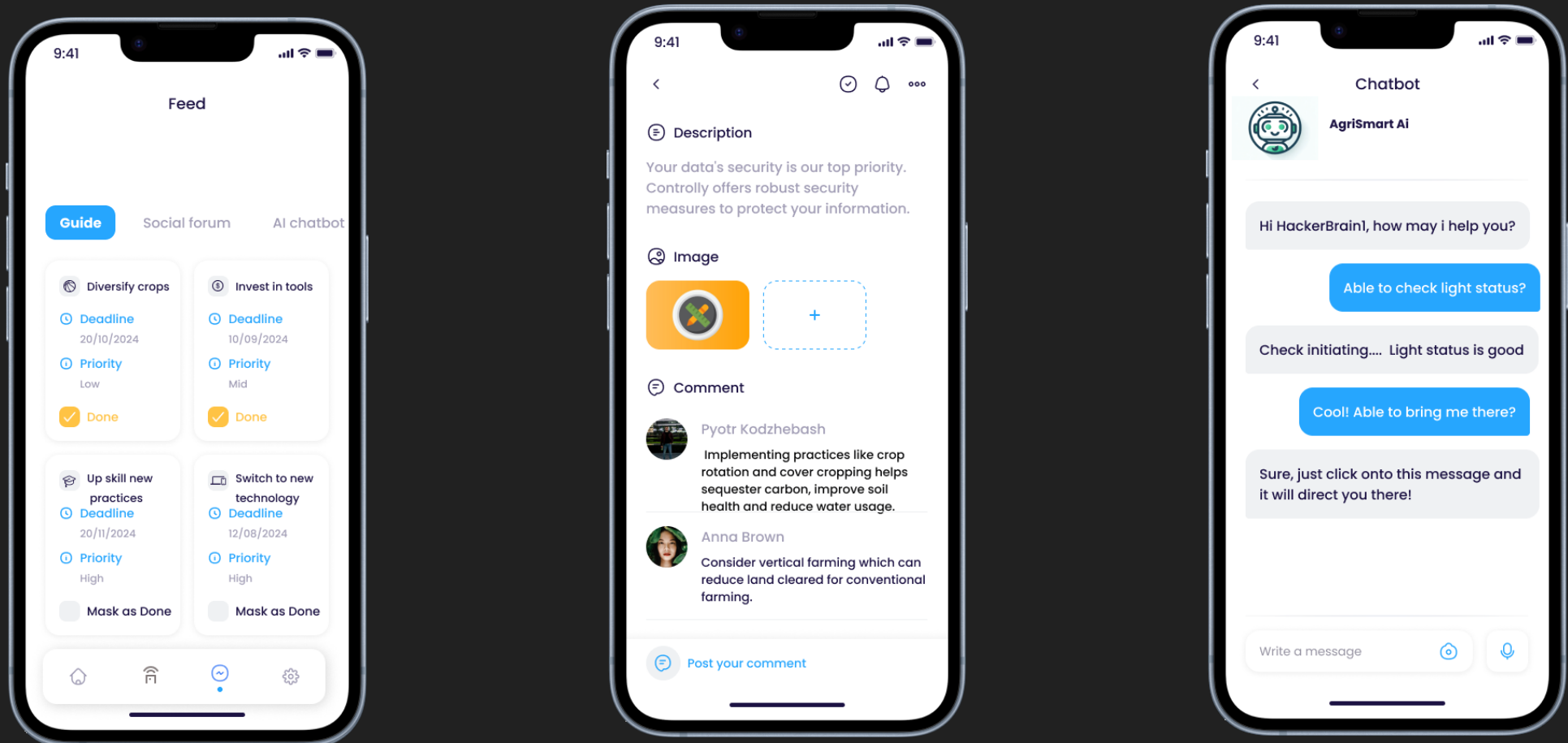
Mitigating of issues associated with climate change

- **Guarantees Crop Productivity Amid Uncertain Weather**
  - Minimize food shortages and alleviate poverty
- **Optimized Resource Usage with Data-Driven Approach**
  - Reduces resource waste, lowering costs and environmental impact while maintaining high productivity
- **Sustainable Crop Recommendations**
  - Recommends crop varieties that emit fewer greenhouse gases
  - Reduce carbon footprint
  - Promote sustainable and eco-friendly farming practices

Positive Impact on Climate Change
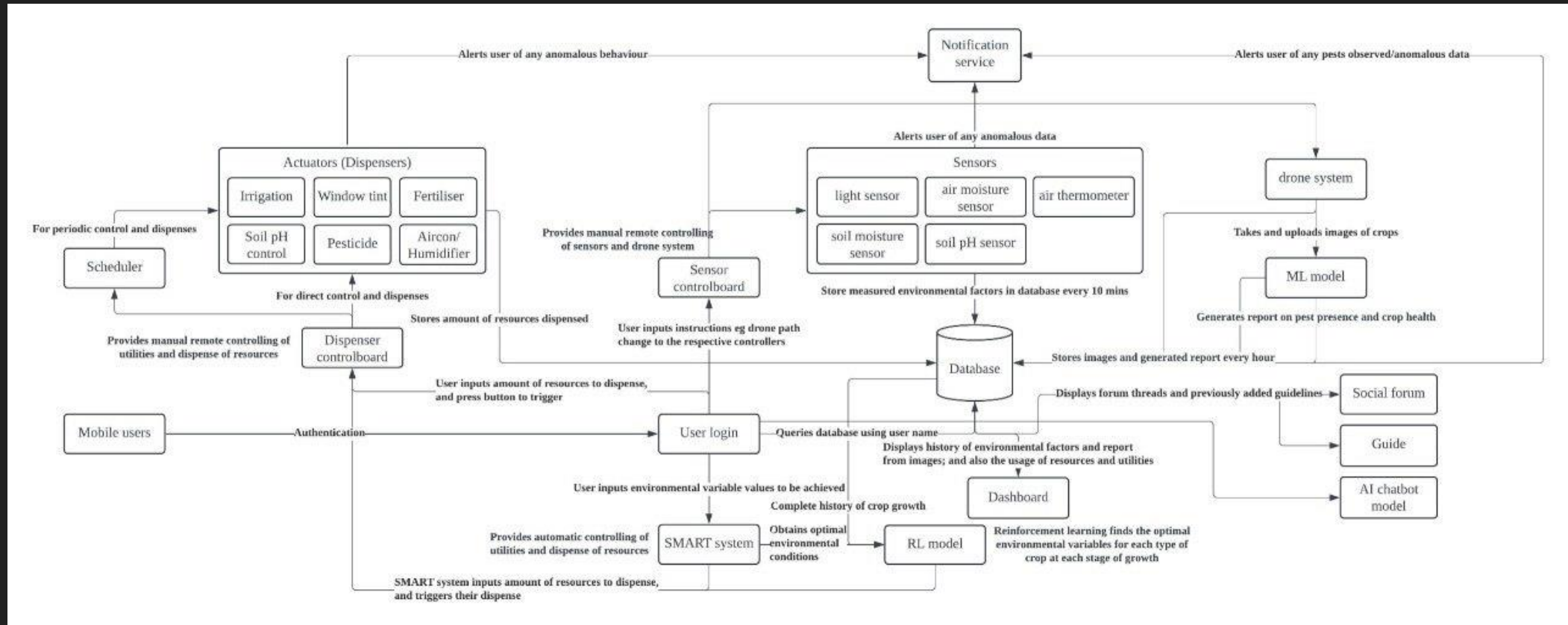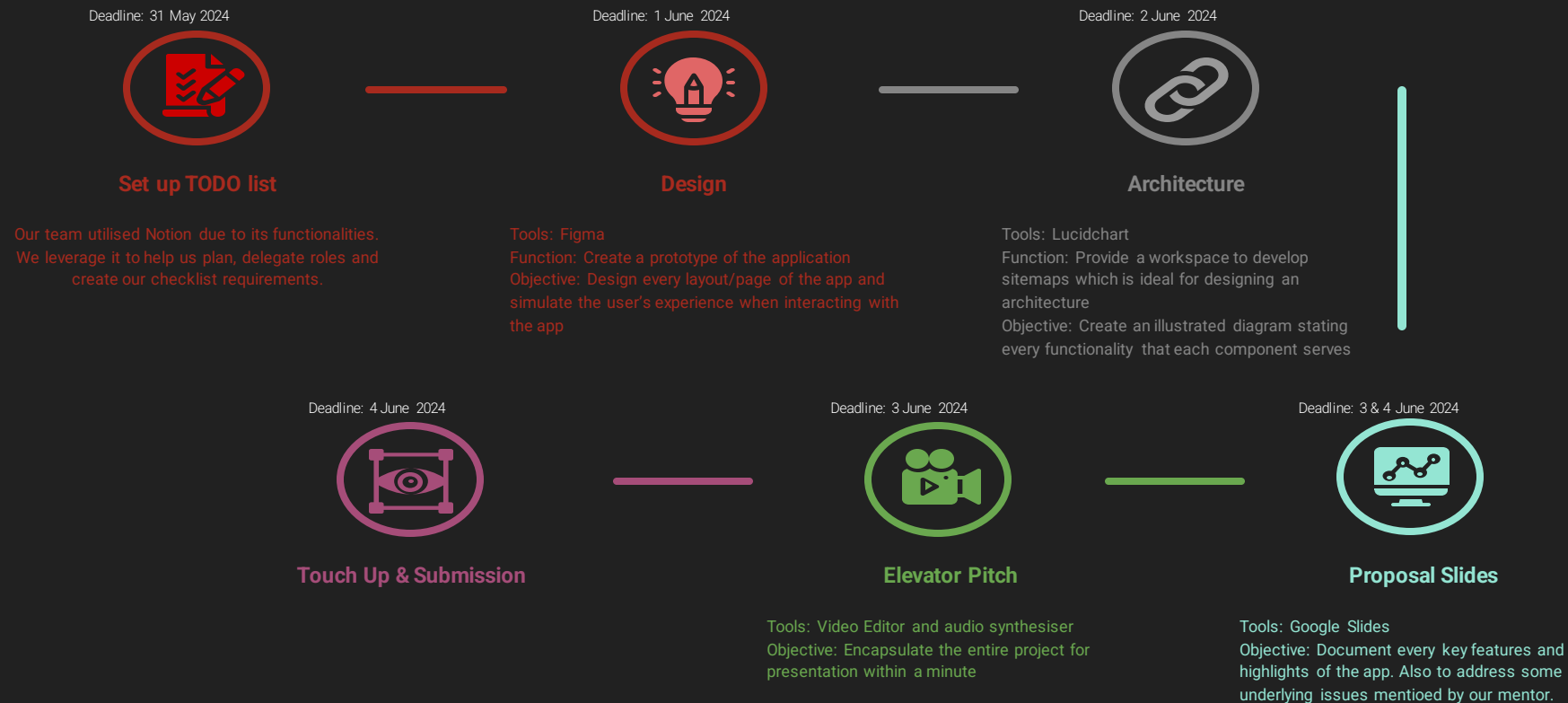
RESOURCE EFFICIENCY

IMPROVED SOIL HEALTH

INCREASE YIELD

Application Architecture

Development Timeline

Deadline: 31 May 2024

Set up TODO list

Our team utilised Notion due to its functionalities. We leverage it to help us plan, delegate roles and create our checklist requirements.

Deadline: 1 June 2024

Design

Tools: Figma
Function: Create a prototype of the application
Objective: Design every layout/page of the app and simulate the user's experience when interacting with the app

Deadline: 2 June 2024

Architecture

Tools: Lucidchart
Function: Provide a workspace to develop sitemaps which is ideal for designing an architecture
Objective: Create an illustrated diagram stating every functionality that each component serves

Deadline: 4 June 2024

Touch Up & Submission

Deadline: 3 June 2024

Elevator Pitch

Tools: Video Editor and audio synthesiser
Objective: Encapsulate the entire project for presentation within a minute

Deadline: 3 & 4 June 2024

Proposal Slides

Tools: Google Slides
Objective: Document every key features and highlights of the app. Also to address some underlying issues mentioed by our mentor.

6/3/2024

Addressing of Q&A

Main Points to Address	Other Questions upon consideration
How does AgriSmart help in managing resources efficiently? Ans: It helps to make data-driven decisions to use resources more efficiently, reducing waste and costs.	**How does AgriSmart handle data privacy and security?** Ans: It employs robust encryption and security protocols to ensure your farm data is not compromised and only usable to authorised users.
How does AgriSmart improve farm security? Ans: It employs advanced 24/7 surveillance along with cameras and motion sensors. From here, instant alerts will be received in case of suspicious activity.	**How does AgriSmart help in pest control?** Ans: AgriSmart uses computer vision to detect early signs of infestations and provide recommendations for targeted pest control measures, minimizing crop damage.
Will there be an onboarding for farmers to use AgriSmart? Ans: Yes, there will be a month long onboarding with farmers. Farmers will also be provided with a user guide too.	**Is AgriSmart suitable for all farm sizes?** Ans: Yes, AgriSmart is scalable and can be tailored to suit both small and large farms.