Project details:

Our project is a smart alarm clock designed to assist students with their studies and time management. It consists of two elements: a physical clock and a companion app, seamlessly working together to enhance the user experience.

We have included numerous features into the clock that allow users to set preferences via the app and focus on their studies without relying on their phones or external devices, thus avoiding procrastination. The main features of our project include:

1. Display Modes: Instead of a static display, users can interact with the clock to navigate through its multiple modes, which are time, date, day, study mode, and reminders for the day. Each mode supports a text-to-speech feature, allowing the time, date, day, or reminders to be audibly announced.

2. Multiple Alarms with 3 Different Difficulty Levels: Users can easily set multiple alarms using the app, customizing the time, name, ringtone, and difficulty level. The difficulty levels offer different ways to turn off the alarm: short press, long press, or playing the snake game until reaching a certain point. This variety aims to help users wake up more effectively, especially for early studying or work.

3. Study Mode: To encourage productivity and efficient time management, we have incorporated two timers - a study timer and a rest timer - based on the popular Pomodoro technique. Users can set their desired study and rest durations, along with repetitions, using the app. The clock allows users to start, pause, or restart the timers seamlessly.

4. Reminders: The app features a calendar, allowing users to input their daily reminders, which will then be displayed on the clock. With a press of a button in the reminder's mode, the clock will cycle through all the day's reminders audibly.

Additionally, we have included various user-friendly features to enhance the overall experience, such as volume and brightness control, as well as the option to enable or disable auto-brightness through the app's settings page. The auto-brightness function is achieved by incorporating a light sensor that automatically adjusts the brightness based on the environment lighting conditions, ensuring better readability during the day and night.