Smart Scheduling System





Smart Energy
System

Smart Audio System

The Smart Home System integrates lighting, heating, cooling, music entertainment, wake-up alarms, and event planning into one easy-to-use application. Unify your utilities today and dramatically increase your household efficiency with the Smart Home Systems application for Android devices!

System Requirements

- Smart Scheduler System provides the user with accurate wake-up notification.
- Notification based on weather forecast, historic conditions, and delays.
- Set a bedtime notification based on desired sleep duration.
- Schedule based on time/duration of events.
- Conflicting event warning.
- Smart Audio System Should read aloud notifications from Smart Schedule System.
- Amazon Alexa integrated into Smart Audio System to read to-do list and play music.
- Handle music conflicts by defaulting to master user when multiple users are active.
- Playing audio simultaneously on multiple speakers in different locations.
- Audio playback follows user in house.
- Adjust lighting system when user is home or away for maximum energy efficiency.
- Heating/cooling adjusted for maximum comfort before user leaves/arrives.
- *Predict time to reach specific temperature.*
- Location-based dual-zone heating/cooling.
- Predict when user will awake from sleep in order to adjust temperature appropriately.
- Detect unoccupied areas and dim lighting.
- Adjust temperature at sleeping hours for maximum comfort.
- Display energy savings.

For more information, visit: https://github.com/RUSEGroup12

<u>Smart</u> <u>Home Systems</u>



Team Members

- Akhilesh Bondlela
- Bhargav Tarpara
- Brian Ellsworth
- Huy Phan
- Nicholas Grieco
- Vinay Shah

Software Engineering
Group 12

Smart Energy System

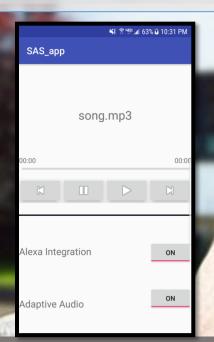
Conserving energy is a good practice for both the environment and your wallet. Make the most use of your energy with Smart Home Systems for Android.

Temperature prediction

By predicting the duration of household temperature transitions, your house will always be the perfect temperature when you need it to be.

Cost effective HVAC and lighting

The Smart Energy system adapts to your schedule to disable necessary energy-consuming appliances.



Smart Audio System

To make sure that you never miss a beat, the Smart Audio System automates your music system experience, making seamless entertainment a reality.

- Alexa integration

Alexa integration allows for ease of use by letting the user control their home's audio system with voice commands.

- Audio tracking

The system will use the position of your smartphone to locate where you are in the house and play your music in your vicinity.

Smart Schedule System

The Smart Scheduling System informs you when you need to take action in order to arrive at events perfectly on time, every time. It allows you to add events to your daily calendar and will automatically handle timing conflicts for you.

Intelligent wake-up alarm utilizing traffic forecasts

Through the use of Google Map's traffic forecast algorithm, the Smart Schedule System informs the you when you need to depart in order to reach your scheduled event on time. You'll never be late for work again!

