ShadeSync

The Lightbenders

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GitHub repository: https://github.com/brianquintero13/Senior-Capstone

Trello board: https://trello.com/b/8fFUBatY/shadesync

Sprint 1

Spring Goal: Defining the hardware requirements, selecting components, mounting the shades, and enabling manual control with safety stops.

Tasks:
1. Define ShadeSync's hardware and requirements, to select the correct components before building.
   a. Effort: ~1-2 hours
   b. Assigned Team Member: Matthew Dauria
2. Properly hang up shades, so the system can open and close them.
   a. Effort: ~1 hour
   b. Assigned Team Member: Brian Quintero
   c. Dependency: Task 1 needs to be completed
3. Open and close the shades manually, so I can control the amount of light in my room.
   a. Effort: ~1 hour
   b. Assigned Team Member: Jake Sussner
   c. Dependency: Task 2 needs to be completed

Sprint 2

Spring Goal: Assemble and debug the prototype, implement a reliable timekeeping system, and introduce scheduled automation for morning opening and night closing, with the alarm feature as a secondary goal.

Tasks:
1. Build a working prototype, so we can test hardware, software, and communication together.
   a. Effort: ~1-3 days
   b. Assigned Team Member(s): All
2. Make shades automatically open/close, so my routine happens without manual effort.

a. Effort: ~3-5 days
    b. Assigned Team Member(s): All
    c. Dependency: Task 1 needs to be completed with the mobilized frame in hand

3. Stop shades automatically so they don't get damaged.
    a. Effort: ~3 hours
    b. Assigned Team Member: All Members
    c. Dependency: Task 2 needs to be completed

Sprint 3

Sprint Goal: Deploy ShadeSync on the mounted window frame and demonstrate end-to-end control from a phone (manual + scheduled), while enabling basic behavior-based recommendations that adapt schedules over time.

Trello board

Extra Work

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E. Control ShadeSync from a dedicated mobile app on iOS and Android, so that I have a polished and consistent experience across devices.

0/4

E. Design different types of shades to work with different window types.

0/3

E. Customizable features in ShadeSync, so the system fits my personal needs.

0/4

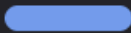E. Shades to automatically adjust to a preferred brightness

+ Add a card

Product Backlog

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2. Build a working prototype, so we can test hardware, software, and communication together.

☰ ☑ 0/4

2. Stop shades automatically at the top and bottom, so they don't get damaged.

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2. Make shades automatically open/close, so my routine happens without manual effort.

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3. Connect our hardware prototype to the mounted shades, so we can test the

+ Add a card

Current Sprint ···

1. Open and close the shades manually, so I can control the amount of light in my room.
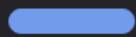
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In Progress

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1. Properly hang up shades, so the system can open and close them.
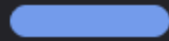
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\+ **Add a card**

Done

1. Define ShadeSync's hardware and requirements, to select the correct components before building.

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+ **Add a card**