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Assignment 2: Designing Alternatives

Product

My product is a home automation interface and control panel that will allow the user to view information and control their smart home devices. It will feature a touchscreen tablet style device that gets installed on a wall or into a stand for tabletop usage. Its touchscreen control panel will allow the user to connect to their smart home devices and control those devices from the panel. The control panel will integrate with Google Home and Amazon Alexa which allows for maximum compatibility with all smart home devices (such as Philips Hue and Aqara). The control panel will work like how most touch screen interfaces work. The user will be able to tap to toggle, or to press and hold for more options. When a user selects more options, it will open a menu that allows the user to select various options relating to the device. The control panel will be completely customizable, the user can set which buttons appear on the home screen, and these buttons can be set to a certain size. This is so that the user can set the interface to match their needs.

User type

Our user is Robert, a 27-year-old corporate employee who lives in Atlanta, Georgia. He and his wife recently had their first kid and just bought their first house for his family to grow in. He was raised in technology era and has a good understanding of technology. Robert finds technology fascinating and thus has taken the time to upgrade most devices in his house to newer smart home variants, creating an immersive smart home experience. He has his control panel setup in his bedroom and has it setup to be a way for him to view the status of his home and to control various devices from the comfort of his bedroom.

Three Scenarios

Robert is winding down for the night and about to go to bed. Robert takes one last glance at the control panel to get a quick status of the house. The control panel allow him to see the status of various smart home devices throughout his house. While looking at the panel, he notices that the front door was unlocked and that the garage door was left open. Robert uses the control panel to lock his front door and to close his garage door. All Robert had to do is to click on the icon on the dashboard to toggle the action relating to it, so pressing on the front door would lock the door and pressing on the garage door would close the garage door. Robert didn’t have to get up to check the statuses of these entry points of his house, and he also did not have to get up to remedy

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these problems. This is all possible because Robert upgraded the front door lock and the garage door opener to smart home enabled versions after his family moved into the house.

While winding down for bed, Robert's wife complained that the room was cold. Robert obliged and reached for his control panel to turn of the bedroom fan, which is smart home enabled. To do this, Robert would simply press the fan button and it would open up a page with more information about the fan. From there he is able to set the fan speed, or in this case turn the fan off. About 5 minutes later his wife states that it is still too cold. Robert reaches over to his control panel and is able to raise the temperature for the house's HVAC system, which is possible through a smart home enabled thermostat that Robert had installed. Similarly to the fan, all he would have to do is select the thermostat and a page with more information would pop up. This page would allow him to set the temperature as well as set the HVAC mode. A couple of hours later, Robert wakes up feeling a little bit hot and is sweating because of it. Robert is able to turn the fan back on or adjust the thermostat temperature from his control panel without leaving the comfort of his room or even the comfort of his bed.

It is around lunchtime on a day that Robert has off from work. His wife went to run some errands, so he was left at home to watch and care for their newborn child. It was time for the newborns mid-day nap, but Robert was having trouble putting newborn to sleep. Robert tried dimming the lights to see if that would help. He eventually even tried to use some music to help the newborn fall asleep. Once Robert finally got the newborn to sleep, he went over to his bedroom and used to control panel to open and view the baby monitor camera so he could keep an eye on his child. All he had to do was click on the camera icon placed on his dashboard to open the camera view in full screen. After about 15 minutes had passed, Robert used his control panel to lower to music volume in the child's room as well as turning the lights off completely. To do this, he would have to click away from the video view to get back to the control panel's dashboard. From there he is able to click and control the music and the lights in his child's room.

Below is a rough wireframe of the interface Robert would be using on his control panel.

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