

Rapid prototyping of control panel with touch display for sliding doors

Technology is a large part of every person's day to day life. The interface between people and tech is a crucial part in order for humans to utilize technology in an effective way, and sometimes this fails miserably. Everyone can relate to a time when the use of a technical product that is intended to make life easier has been a frustrating experience. This project aims to rapidly produce a prototype of a new type of control panel of an Assa Abloy entrance system which is touch based. In our master thesis, we developed this prototype and explored the advantages of a touch based control panel with the user experience in focus.

The result of this project can be seen in the picture. The prototype is able to connect to an entrance system and supports a multitude of functionalities.

The key features of the prototype includes but is not limited to:

- Able to connect to a sliding door entrance system using a raspberry pi.
- The user can select 5 different door modes.
- Detailed description of error messages together with a suggested solution
- Changing parameters of the sliding door
- Clearly displaying the currently selected mode.

The control panel was produced in a rapid manner using off the shelf hardware and integrating it with software used to build the graphical user interface and connect to the entrance system. The design of the graphical user interface has been done in conjunction with another master thesis, which aimed to perform a UX-study of a touch based user interface. The findings of this master thesis have been implemented during the development of our prototype, with the goal of making the result as user friendly as possible.

With technology developing rapidly in today's world, companies like Assa Abloy need to ensure that they keep pace and constantly are up to date with the market and the technologies available. Therefore this new product is of great importance to provide a more modern alternative to the older control panels consisting of buttons or a key to change between the different modes.

The prototype produced allows the company to get an early indication of how this product can look and interact with a sliding door. It can also be used as a platform to continue to develop new features and test them before implementing it in the real product.

