DIPLOMARBEIT

Gesamtprojekt

ModTable

PLATZHALTER für (Bild, Grafik)

Aufbau, Schaltplan...
oder Logo

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Rankweil, on the 1.8.2023

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delivery note:

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Declaration under oath

I declare in lieu of an oath that I have written this thesis on my own and without any without any help from others, that I have not used any sources or aids other than those indicated, and that and that I have made the passages taken verbatim and in content from the sources used as such.

Rankweil, on the 1.8.2023

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Mayrhofer Sebastian

Abbreviations & Notes

GUI	Graphical User Interface
OLED	Organic Light-Emitting Diode - Wikipedia article

1   Concept design

My final thesis, which i called ModTable, is a table which smartly adepts to the user. Its aimed to fix the most annoying things with modern tables: cables, design and the function that everything just works. I want to fix this with my project, where i want to build one complete package where everything is well integrated and easy to use for the end user. This product is aimed at a work environment, ideally in a individual office.

1.1   Functions

The Table should fulfill all basic functions of an office table so these are :

1. A external Monitor
2. Height adjustable Table
3. Camera System for Meetings
4. Microphone for Meetings

   And some additional features
5. Status bar for notifications, timer, and calendar events
   (a) Small OLED Screen for name of the event etc
   (b) LED Bar for Status indication (embedded into the table)
6. Touch Screen inside the table for controlling all the functions
7. Background Lighting for lighting up the wall in on the side of the user for better pictures with the camera

1.2   Milestones

The Project will be worked through in 3 Stages (Versions)

1. **Version 1**

   In the first prototype version the basic functionality should be created, so these following functions should be met:
   (a) The screen should be able to adjust the table height
   (b) The screen should be able to control all connected devices (Camera, Microphone)
   (c) The connection from the table to the laptop should transmit the data for the Display and the connected Devices, and charge the device (Laptop)
2. **Version 2**

   The second version should implement the aforementioned status bar, with the small OLED screen which should display the next calendar event or a timer, all of this should

be controlled by the main control screen. Also the Background lighting needed to light up the background for the meetings should be added at this stage.

3. **Version 3**

   For the third version the table should be constructed an assembled, this milestone may be worked on parallel to the other versions so the sequence may not be correct.

2 PRD

version 1

2.1 Introduction

2.1.1 Initial situation

ModTable starts with the problem of cluttered and ugly office tables, where if you have a meeting, you firstly have to clear your table, connect the camera, reposition it, turn on the correct lights. The rubbish on the table is a thing which cant be fixed with electronics, but the privacy,design part is fixable through electronics.

2.1.2 Goals and purpose

This product is aimed at fixing the aforementioned situation, mainly through an all in one solution, which houses the camera, microphone, height adjustment, lights, a embedded screen for controlling etc.

2.1.3 Project Affiliations

The Project will be created for the five is innovation management in cooperation with PKE Medientechnik.

2.2 Concept and general conditions

2.2.1 Users / Target audience

2.3 Requirements

2.4 Permissions

2.5 Attachments

3 Abbildungsverzeichnis

4 Tabellenverzeichnis

5 Codeverzeichnis