



INDIAN INSTITUTE OF TECHNOLOGY GOA

CS-216 Digital Project : MESS RATING SYSTEM

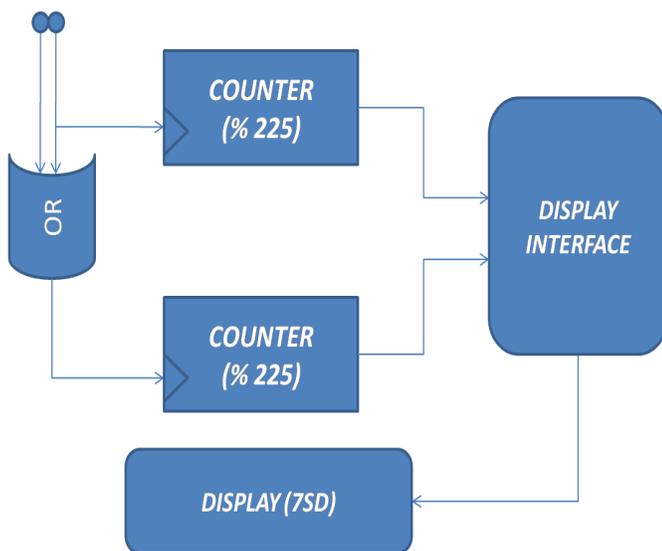
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Introduction

The Mess is one of the most important part of a student's hostel life. Hence it becomes important that there is a proper system which can tell the quality of everyday food. Our institute lacks at this point, as there is no such system available at present.

Our aim is to build a Mess rating system through which students can rate everyday food and also deliver the readings as an output so that the required amendments can be made.

System Overview



We divided the Project into 2 parts.

- Individual Food rating system : Here we are using *arduino* and *touch-screen LCD* to get inputs from users. Individual food items from today's menu will appear on the LCD screen from which user can select and rate. The exact working (user manual) will be provided in Results section.
- Recommendation Module : Here we are using Helium Board, 7 segment display to get input from users and display the results. This module is for users who just want to tell whether they would like to recommend today's food to others or not, if they dont have time to rate individual food items



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Implementation Details

For the recommendation module a BCD display cum counter was made using FSM machine. The seven segment display gave the output of the number of the people who recommended the food . The input for this was either a yes or No. There were 4 states to display the four output no.s individually. A clock of 1000k hz ensured that our eyes do not see these no.s getting written individually. Another Module was made to combine 2 such counters. In this module the yes was pin mapped to input of counter and to other counter's input "yes V no" was pin mapped. For individual rating arduino and Touch screen LCD were used. The LCD had the list of all the food items rated by the people. The rating of a particular food item can be seen by touching the name of that item on the LCD screen. The rating will be from 1 to 5(or 9) . And the result rating will be the average of all the input ratings. This was done by arduino coding using TFT libraries.

Results and User-End implementation

Any one who enters the mess can either rate all the food items separately or use the "recommend" module or can do both depending on how much time he/she has for providing feedback.

Recommendation module : It has two keys a "Yes" and "No" on the *PCB board*, a "Yes" means you would recommend the given day's food to others and a "No" means you wouldn't recommend it to others. The recommendation results are displayed on a *7 segment BCD display*, which displays how many people have given a "Yes" out of total number of people who have chosen to provide feedback for the recommendation option.

Rating food items separately : The food items are displayed separately on a *LCD display* with *touch screen*, different food items can be selected from the options provided and rate them separately, the results of which are also displayed on the same LCD display. The rating of food is done from 1 to 5(or 9) with "1" *being the lowest* and "5"(or 9) *being the highest*, rating buttons along with their values are provided on the *PCB board*.

Conclusion

The main aim to chose above project was to make something that is useful in real life. The project took effort from all four of us to complete within the given time.