MEC332

MECHANICAL ENGINEERING DESIGN

FINAL YEAR PROJECT REPORT

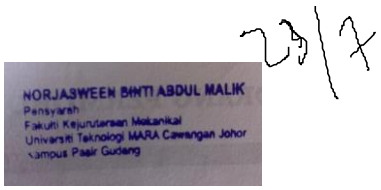
PROJECT TITLE:

SMART SAFETY FOOD DELIVERY BAG (S2FD)

GROUP:

J4EM1105A (A1)

SUPERVISOR'S NAME:



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8.0 CONCLUSION AND RECOMMENDATION

8.1 Conclusion

In the current market, many kinds of food delivery bag are available, but those are not in satisfaction level with the customer requirement. S2FD bag are used to pack and carry food and beverage and make sure there are not spill in the bag. To find a good food delivery bag that prioritize the food and beverage safety to being serve to the customers in good condition is not easy. Therefore, the S2FD bag is very helpful when it can reduce percentage of the food and beverage to spill in the bag because it came with the best solution in terms of safety to prevent it from happening.

It is also provide many compartments such as food compartment, beverage compartment and also for the pizza compartment at the top. The mechanism that has been created to open the compartments also will make the users feel satisfied with the S2FD bag. The practicality of this product will be the number one thing that been consider when the product is in design. The S2FD bag has been made by thinking of the riders and make it easy to carry by them.

Through this project, we had some limitations regarding the diversity and built of the structure, but with the knowledge we had, we manage to create a design like this. During the test run of this project, it was realized that it wouldn't be a bad idea to consider a safety thing in the S2FD bag. This product will be well acclaimed if it can be commercialized to suit needs, Though, the initial cost of the project seemed to be a little higher but by avoiding mistake and more accurate in manufacturing can reduce it.

As far as commercial aspects of this product are concerned, the acceptance will be unimaginable if the product can be fully automated and sell at a reasonable price. Presently, there are few competitors for such kind of product in the market.

8.2 Recommendation

From the survey, we got many recommendations from respondents for the improvementfor our food delivery bag. Firstly, applying more harder frame such as rockwool. Besides it harder frame compare to others, it also are fire resistance, water resistance and vapor permeable. The rockwool can avoid and protect the food and beverage from any outside danger than can affect the food and beverage.

Next, a pressure sensor. It can be installed in the bag to sense food container in the bottom compartment. If in the compartment has a food container, the pressure sensor will automatically switch on the air pump and fill the air bag with the air from the air pump. The riders always forget to switch on the air pump while put the food container in the compartmentand to prevent it the pressure sensor should be installed.

Last but not least, we suggest to use a solar panel for generate power to the air pump. This is because the solar panel more save in terms of energy uses. It can reduce use of chemicals that generate power into a device such as battery and so on. Besides, we can take care of natureand use another alternative that is more convenient to use.