Ethical and Environmental Analysis

Year: \_\_2019\_\_ Semester: \_FALL\_\_ Team: \_\_8\_\_

Project:\_\_\_\_\_\_Condiments Express\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Creation Date: \_\_\_\_Nov 8 2019\_\_\_\_\_\_\_\_ Last Modified: November 13, 2019

Author: \_\_\_\_\_\_\_Minghao Sun\_\_\_\_\_\_\_\_\_\_\_ Email: \_\_\_\_\_\_sun627@purdue.edu\_\_\_\_\_\_

Assignment Evaluation:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Item** | **Score (0-5)** | **Weight** | **Points** | **Notes** |
| **Assignment-Specific Items** | | | | |
| **Environmental Impact** | 4 | x6 | 24 | More detailed is required |
| **Ethical Challenges** | 3 | x6 | 18 | Needs more work |
| **Writing-Specific Items** | | | | |
| **Spelling and Grammar** | 5 | x2 | 10 |  |
| **Formatting and Citations** | 3 | x1 | 3 | Justifications need to be cited |
| **Figures and Graphs** | 5 | x2 | 10 |  |
| **Technical Writing Style** | 5 | x3 | 15 |  |
| **Total Score** | 80 | | |  |

5: Excellent 4: Good 3: Acceptable 2: Poor 1: Very Poor 0: Not attempted

Comments:

*Comments from the grader will be inserted here.*

1. Environmental Impact Analysis

In our design, there are several kinds of materials besides the printed circuit board. The materials are wood, 3D printing materials, plastic for the bottles and aluminum. All of these three materials are easy to be obtained and manufactured during production. When in use, the materials are all environmentally friendly which means there will be no hazardous materials causing health problems. Once the products are going to be disposed of, the wood and aluminum can be recycled as well as the 3D printing materials. The printing material, specifically, is environmentally friendly, and it should be easy to dispose. [1]

Since we don’t have enough materials to choose from, we selected the materials discussed above, however, for real manufacturing, we can pick other kinds of materials that may be more environmentally friendly like some recycled materials. When there is a need for the consideration of the disposal of the device, the bottles and the wooden plate of our product can be reused, but other materials like aluminum rods have to be disposed properly and it cannot be reused. At the same time, there is a need to consider the environmental effect of the PCB since it contains parts that need special disposal process.

1. Ethical Challenges

Since our design is just a condiment dispenser, it may not cause serious ethical challenges. One of the ethical challenges is that since our design will reduce the time that people spend time on cooking, and they may be tired of discovering new menu. Therefore, the types of dishes in the world might be reduced because of our design. To address the ethical challenges mentioned above, there could be an improvement on the software side to encourage people to cook and discover new recipes.

The other ethical challenge could be that since it’s more convenient to cook, people may spend much less time to eat outside. Currently, because people are busy working, people will tend to go to a restaurant or even fast food to save time instead of cook by themselves. Therefore, as a result, the revenue of the restaurant may be reduced. At the same time, the competition between restaurants, especially fast food restaurants, can sharply increase. Therefore, many restaurants may be quitting the market and shock the entire food market, because people may prefer cooking at home instead of going to restaurants.

As for the concern for the originality, according to the current research that we have done on the relative and similar products, there is no exact same product in the market, and the ethical concern about this field can be eliminated.

3.0 Sources Cited

RENEWABLE AND ENVIRONMENTALLY FRIENDLY POLYLACTIDE (PLA). (n.d.). Retrieved from http://www.technologystudent.com/joints/pla1.html.