

3D Printed Dress Exhibit

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Abstract

I want to explore new technologies and new forms of learning. Upon doing so, I intend on making a dress from 3D printing. Each piece will be digitally downloaded and then modified into individual patterns. Once printed, the patterns will be assembled into one cohesive dress. During the printing process, I plan to use the printer and facilities here at Millersville University as well as at Make 717. The entire dress itself requires 980 grams of material. Putting the dress together will take 3 months to completely assemble and 1100 hours worth of printing time. I plan on showing the completed project at the 2018 Made in Millersville conference. This dress and overall project will become a staple implemented into my portfolio. The project will also give me the opportunity to explore new creative outlets and will allow me to learn and grow more as a designer.

Creative Commentary

I am currently a senior art major. I am looking to go into the field of interior design once I graduate. Upon doing so, I would like to build my portfolio while learning and adapting to new technologies. I have always been interested in fashion and how it can be viewed as another form of art and expression. I remember watching shows such as Project Runway and Top Design, and always wanting to have the ability to do something similar. I wanted to combine my interests in art and fashion, all while implementing them into my portfolio.

Beginning the initial process of creating a dress from 3D printing took immense brainstorming and ideation. It was a learning curve for me, as I was unfamiliar

with the process of 3D printing. I had to take what I had previously sketched and written down, and see if the 3D printer would be able to produce my work perfectly. Further research led me to find the InBloom dress from XYZ Workshop. This dress was created in 2014, and was presented on a runway show dedicated to 3D printing clothes. The dress comprised of roughly 100 individual pieces, which came together to form one entire dress. The website Youmagine provides all of the pieces needed to be downloaded. They also have the resources to alter and modify pieces to the way I desire them to look. To begin the process, each individual piece must be downloaded. From there, it must go through Netfabb. This software recognizes and analyzes any problems that might cause issues while printing and proceeds to fix

them. I ran into many problems initially that Netfabb was able to solve.

When I began my printing process, nothing came out to my liking. This was due to certain sections of the pattern overlapping in a manner that the printer did not identify with. Once sent through the Netfabb software, I was able to print all of my pieces. Before the individual pieces can be printed, they must be sliced through Cura. This is where the downloaded pieces can be

modified and sent to the printer. From there, the printer produces what was sent through Cura. After that, each piece is glued together in three different parts: the corset, the skirt and the train. The pieces are then assembled into one dress and one final project. This project would not have been possible without the immense help of Greg Szczyrbak, Nancy Mata and the employees and volunteers and Make717.

Recommended Citation

Smith, M. (2018). 3D Printed Dress Exhibit. *Made in Millersville Journal*, 2019. Retrieved from <https://www.mimjournal.com>