FANCY A 3D-PRINTED BRA?

Claire Chabaud, a Master of Economics and Business student at Sciences Po, has just won first prize in the Bpifrance #PitchTonInno awards for students with her partner Anastasia Ruiz, a fashion design student at ESMOD. Thanks to the €30,000 FrenchTech grant this has earned them, the students' project for made-to-measure 3D-printed lingerie will be able to see the light of day. We talked to Claire.

Where did you get the idea of creating 3D-printed lingerie?

I've wanted to work in lingerie for a very long time. In 2011, during a trip to China with my grandmother for the World Expo, I noticed there was a problem in this area. Chinese women are very slight with delicate figures. But they're trying to bring out the best in their morphology with Western brands that don't suit their measurements. Etam, for example, which had a strong presence on the market already back then, was selling the same models in China as in Europe without adapting its sizes. That was what made me think that lingerie should be created based on the woman herself and not on a standard. I though a lot about this problem without finding a good solution.

It was during a course at Sciences Po called Innovation and Disruptive Business that the light bulb went on. For our end-of-semester project we had to choose a favourite industry and work out a way to innovate in it. Rahaf Harfoush, our teacher, told us that to create a disruption in an industry you have to observe what's going in the opposite industry. Well, what could be more opposite to lingerie than the arms industry? This was when the first weapons were being created with 3D-printing. A highly customizable technology that makes it possible to create unique, high quality pieces: that was just what I was looking for my project. So rather than printing weapons I thought "why not print underwear

suited to women's bodies?"

How has your education at Sciences Po helped you (or not) start this business venture?

Rahaf Harfoush's course helped boost my creativity and be more open-minded so I could find new solutions. But after I got the idea, I had to admit the obvious: 3D printing was a complicated technology that I needed to understand better. So I signed up for a course offered by the Sciences Po Arts Bureau called "3D printing", where Jean Colladon taught us how it works. We used FDM printers [Fused deposition modeling, a 3D-printing method that works by depositing filament] and created files with a programme called SketchUp. Then just at the end of that semester I was looking for internships for my gap year. I received several offers to work for luxury or marketing companies but at the last moment I received an offer from Sculpteo, one of the three leading 3D-printing services worldwide. Jean helped me with my application and I started working as a marketing assistant. In that position I was able to learn 3D technology, and a few months later I was put in charge of creating a collection of 3D-printed clothing.

This 3D-printed lingerie project is the result of collaboration with a fashion design student. How did you come to associate your respective skills? How do you complement each other?

I was really the project manager for creating this collection of 3D-printed clothing. Sculpteo had the technology with the printers and engineers but we were missing the artistic side. So I went to ESMOD, one of the best fashion schools in Paris, and proposed a competition to select a student. The principle was simple: the collection would be offered to the winning student. Anastasia Ruiz won the competition hands down. She had designed a collection called "Virus", a metaphor for the constantly changing world and technology's fast-paced development.

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