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Sustainable Systems

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Design can change our environment

I designed pants that are made from leftover fabrics that I collected from people who were planning to throw it away. The concept of my design is to reduce the waste of materials in the fashion industry and stop the vicious spiral of environment pollution. Based on my research, there are tons of energy, water, and chemical dyes that are used for making fabrics, and that significant amount of chemicals and energy waste affects our nature and surroundings of the factory. The artificial fabrics such as linen, cotton, wool, rayon, and polyester use a lot of chemicals in the process of making it. Even it says organic fabrics used certain amounts of chemicals on the process, the important thing is to know how much chemicals we need to apply for each type of fabric and where do all chemicals go after they applied. In the process of making linen, we need some chemicals to cause it fiber, but there is some way that reduces the use of chemicals if they use enzymes. For cotton, compared to linen we do not need a lot of chemicals to make it, but we need so much water(3% of water use in the world), agricultural chemicals(7% of agricultural chemical use in the world), and huge fields(2% of the world). For organic cotton, we need more fields because it requires more amount of raw cotton to make it. Wool is a very sustainable fabric if we do not care about wool comes from cheeps, and there is one more problem that the burp of the cheeps contains methane in it. On the process of making rayon, they use carbon disulfide, and its causes Parkinson's disease, heart disease, cerebral apoplexy, and

those serious diseases. They also need a lot of bamboos to make linen, and they lumber a tract of forestland. Organic rayon do not need any chemical processes, but they are rare and expensive in the industry. Polyester is the most popular fabric, and it is 60% of the fabrics in the world. However, it is very functional and most used fabric, it is made out of crude oils, so it is the same thing with plastics, and every time we wash polyester, it releases microfibers. It goes to the ocean and nature, so slightly affect those animals and species that live around the area. By that research, I came up with one idea to reduce the damages to our environment, which is to use the fabrics that already exist. There is a lot of waste fabrics in the fashion industry, so in the system that I make, I collect the scrap fabrics from all over the places to make new collections as the pants that I made. My designs are mostly unisex and fit for everyone. I am planning to do custom made for some people who have difficulty to find their own sizes as well. The prices will not be too high because the materials are scraps from factories. These designs can be worn by everyone, include kids and seniors. Because of the flexibility of materials that I can use, I can make a specific type of textile motif or the designs for a wide range of ages, and specifically I will use fabric that will not be recycled, because recyclable fabrics can be recycled to something else, but some materials, like polyesters will go to landfill that is one thing that I can intervating on. In the future, to think about sustainability will be necessary to fashion designers, and will be changed by young designers who care about our future, which is a very good movement for us and I want to be a part of the designers who can change our environment by sustainable design and creative minds. In the system that I am creating, there will be filled by energies of people trying to change our world by designing sustainable fashion items, and it also saves a lot of energy that was used for making fabrics.