

Allons

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Key Words: Plus sized, active, 3D body scanning

Purpose

The purpose of this project was to create a functional yet stylish outfit for plus-sized individuals, appropriate for outdoor activities. The clothes are intended to promote an active lifestyle. The outfit was designed around the fabric choice of cotton and jersey knit to provide the wearer with functional comfort, while offering the desired casual look.



Image 1(left): Front view **Image 2 (right):** Side view of shirt

Process

This project was inspired by the idea to promote plus-sized individuals to an active lifestyle. The name “Allons” means “let’s go” in French. The outfit consisted of three items, including a puffer vest,

short pants, and a woven shirt with jersey sleeves. Before the draping process begins, a dress form was padded to create a base form for draping. Three-dimensional body scanning technology ([TC]², KX-16) was used to understand the body shape and size of the model, and hand-measuring data were also checked to ensure accurate body measurements. After the initial fitting of the vest, minor alterations were made again for the final product. The vest was primarily made from cotton, though the lining was polyester. The cotton created a timeless look. A test garment was made for the shorts and the draped pattern had to be altered further using flat pattern drafting techniques to perfect the crotch curve. The shorts were made from durable denim. A test garment was made for the shirt to determine the suitability of using a knit and a woven in the same garment. French seams were used initially for the shirt, but were deemed impractical during the testing phase due to the material's weight. The knit allows for a greater range of movement. The side panel connected to the sleeve pattern piece allows more ease for bicyclists. Test garments were developed and the fit was evaluated on the human body, which suggested further modifications in patterns. After the reiterative design process, a final outfit was created

Techniques

Data from the two body measurement techniques, 3D body scanning and hand measuring, provided a baseline for padding a dress form. The comparison between the 3D scan data and our hand measurements ensured accuracy. The dress form was padded using polyester batting covered by a large-sized knit t-shirt. Critical measurement points such as center front, center back, bust line, and horizontal balance line were marked by draping tapes. The dress form was approximately the size of the model. The pattern pieces were draped on the dress form, and modified using flat patterning techniques. The vest uses the quilting technique of sandwiching batting between two pieces of fabric before sewing. Hand basting was used at the hem of the vest to ensure the topstitching would evenly catch the waistband on the front and back. The basting was later removed. The shirt was a combination of knit and woven. This involved two test garments to determine how the two would be connected. The two were joined with a straight stitch and a serge finish. The Shorts were assembled using traditional sewing techniques, including welt pockets and top stitching.

Materials

100% cotton was used for the shell of the vest, while 100% polyester was used for the lining of the vest. Although nylon is a popular fabric choice for padded vests, the cotton shell was considered to create a casual yet mature style. 100% polyester jersey knit was used at the armpits of the shirt to allow for greater movements and help wick moisture away from the skin, but the shirt bodice was

made of the cotton/spandex blend (99% cotton, 1% spandex) for breathability. 100% cotton twill was used for the shorts.

Vest shell: 100% cotton

Vest lining: 100% polyester

Vest batting: 100% Polyester

Shirt sleeves: 100% polyester knit

Shirt body: 99% cotton 1% spandex plain weave

Shorts: 100% cotton twill weave

Shorts pockets: 100% cotton

Vest: metallic snaps

Shorts: Metal button and metal zipper

Shirt: plastic buttons