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Apparel for Individuals with Limited Mobility

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Apparel for individuals with limited mobility

by

Ali Robbins

Submitted in Partial Fulfillment of the Requirements

for the Degree of Master of Arts in Fashion Design

at

Lindenwood University

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Ali Robbins Ali Robbins 6/20/2021

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12/13/21

Committee member

A Thesis Submitted to the Faculty of the Art and Design Department
in Partial Fulfillment of the Requirements for the
Degree of Master of Arts
at
Lindenwood University

By

Ali Robbins

Saint Charles, Missouri

July 2021

ABSTRACT

Apparel For Individuals With Limited Mobility

Ali Robbins, Master of Arts/Music Education, 2021

Thesis Directed by: Dr. Chajuana Trawick, Endowed Chair of the Fashion Business and Design Program, in the Art and Design Department, College of Arts and Humanities at Lindenwood University.

This project is focused on designing and creating apparel that meets the unique medical needs of those with mobility limitations. A side focus of this project is on post-surgical apparel. The goal has been to create a complete base outfit that address a range of difficulties people with limitations on their mobility face. The apparel is designed to make self-dressing easier and reduce dressing difficulty for care givers.

Dedication

To my wonderful Mother, whose grace and poise through two rounds of cancer has never ceased to amaze me. And, to my devoted Father whose support and devotion to Mom through her illness was truly inspiring. They have shown me that the best endeavors are born of love.

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Introduction

Apparel is a basic need, both for physical protection and psychological fulfillment. Clothing, and getting dressed in the morning, are largely taken for granted by the majority of the populous. Every day I pull a shirt over my head with no thought to the muscle strength or stretched ligaments used in that deceptively simple motion. Most styles of apparel are not suited for people who are limited in their mobility. For these individuals, getting dressed in the morning is often difficult or even impossible without assistance.

Literature Review

The beginning phase of research focused on initial market research to determine if there was a need for apparel that accommodates limited mobility. These early sources focused on companies that are currently producing apparel in this market as well as scholarly research that has been conducted to improve apparel for people with medical needs. The scholarly research offers little information on companies that are currently offering apparel in this market (Adaptive post-surgery clothing). The sources most informative for apparel currently for sale on the market was provided directly by the websites offering these garments. The apparel brands that specialize in this niche market were found via blogs and forums of people with mobility issues ranking their preferred brands (Bercik 2017). This phase of research also included quantitative data on the number of people who have full or part time caregivers (Caregiver Statistics: Demographics 2016). This research indicated the quantity of individuals with mobility issues is significant and the apparel on the market primarily fulfills sleep wear needs while neglecting the segment in need of professional apparel (Gerber 2020).

The scholarly research most helpful in this phase of discovery are the sources that detailed studies concerning specific apparel and the ratings given by participants. This investigation showed that a significant amount of research has been done to improve post-partum apparel as well as techniques, fabrications, and constructions that indicated increased comfort and function (Awad 2014; Davies 2016; Galante 2020; Rogina-Car 2018). The amount of scholarly research done into postpartum apparel showed that the postpartum niche of the market is fulfilled. The inability to find much on apparel specifically addressing mobility issues indicates an unfulfilled niche.

In the second round of research, fabrication was the primary focus. The goal was to examine the positive and negative traits of woven and knit fabrics. Several of my sources discussed the difficulty restrictive apparel caused people with existing mobility issues which indicated knit fabrics may be a good choice for this market (Galante 2020). An issue with knit fabrics was presented by several sources (Chigama 2020). Knit fabrics have been shown to increased bacterial growth rates when compared to woven fabrics of the same fiber content. These sources showed that while knit fabrics provide the most comfort, woven, tight weaves specifically, are the better option for reducing risk of bacterial infections (Lidija 2017).

A secondary goal was to explore the application of specific fibers in medical settings. Several sources examined the use on infused fibers. Silver and copper were the most widely accepted metals to be embedded into the fibers for their antimicrobial properties. These fabrics showed a decreased risk of infection when compared to the base fibers that have not been infused with metals (Nunes et al., 2018). This phase of research illuminated the risks of certain fabrics and the potential bacterial and viral growth on them. At this stage, the base designs were being sketched and the fabric research prompted a re-structuring of several base designs to account for the information concerning bacterial and viral growth rates. During this dive into metal infused fabrics the issue of cost was present and provided a significant barrier to creating affordable apparel in this market. Another concern raised by a couple of sources is the growing resistance some bacterial strains are developing to silver (Xu et al., 2018). The cost and bacterial resistance information poses new questions that cannot be addressed without further in-depth research, indicating that at some future point the fabrication methods may be viable but for the present time, they are not practical for their initial garments.

State of the Field

Styles currently on the market fall under two main visual categories, those that are to be worn strictly as recovery wear (examples may include upscale hospital gowns and pajamas (“Post-Surgery clothing”, n.d) and athleisure clothing, a style that already lends itself to soft comfortable fabrics and zippers and snaps don’t look out of place. For a post-surgical market sleep and athleisure styles make for excellent style choices given that most people will ideally be recovered and mobile enough to dress themselves in their pre surgery wardrobe in a few weeks or months. The market for individuals with more permanent or long-term recovery apparel is very limited.

Few brick and mortar stores sell a wide selection of post-surgical or limited mobility clothing; however, the internet provides a wealth of e-commerce directed specifically to individuals with specialized clothing needs. Most online retailers in this niche market focus on short term recovery clothing or long term assisted dressing needs. A few provide both options for those who can dress themselves and those who rely on a caregiver to either assist or entirely dress them. Browsing through the online catalogs it is also easy to observe which methods of dress the designer favors. For example, Reboundwear clearly favors the use of zippers for easy dressing and eliminating the need to pull fabric across the body (Adaptive post-surgery clothing, n.d). Other brands favor the use of snap tape or Velcro to easily dress and undress individuals with limited contact to damaged or sensitive skin. Post-surgery the affected skin and surrounding areas are extremely sensitive and needs special consideration to reduce additional, unnecessary irritation, which can lead to infections (Nicklaus et al).

Methodology

Initial research focused on quantitative methodology to obtain a base line of who and how many people may benefit from apparel with mobility and medical benefits as the focus of the design. This methodology was also used when initially researching companies and brands currently serving this niche market. At this point in the research, it became prudent to transition to a stronger focus on qualitative research. The initial research confirmed that there is a need for this kind of apparel that is not fully being met by the current market. In switching to a qualitative methodology, exploration into which ideas had been tried and to what degree of success was the focus. This research helped begin shaping the mini collection. By reviewing ideas that had been tried and evaluating their level of success, focus was placed on the most crucial design details, such as closure choice.

Production

Once the base line research indicated the gaps in the markets, it became clear that the type of apparel that is most lacking is professional wear. The research indicated that many people with mobility issues have jobs that require professional attire, and that same research showed a lack of professional styles that accommodate their unique needs.

Design

For the design process a series of sketches were done. These sketches focused on classic style lines and what are considered basics in apparel. To assist in the process Mrs. Laina Harwood's interview from a previous semester was referenced for her insight as a professional care giver with experience dressing clients with extreme mobility limitations. Sketches were revised to address issues care givers face while dressing their clients.

Prototype - Wrap Tunic

Once the sketch was finalized the patterning stage was initiated. The wrap top was the first sketch to be patterned since it was relatively basic in design and would allow experimentation with closure types in the construction of the prototype. A basic sloper was used and manipulated to create the aesthetic design. The base measurements for the sloper used were Bust-40", Waist-32", and Hip-42". This base size was chosen as it fit the fit model used to test the prototypes. The wrap top was patterned with additional seam allowance at the shoulders to accommodate the different closure types. An additional 2 inches was added to the center back length to accommodate the elongation of the back of the body when seated. In the construction phase twill tape was tried as a seam finish for the neck and armhole. The pattern was then altered to include facings as the twill tape proved unappealing aesthetically. The shoulders were given different styles of closure to determine which is most practical. The wearers right shoulder was attached with snap tape on the base tunic and buttons on the wrap over shoulder. This application proved ineffectual as the muscle strength required to undo the snap tape may be more than the target market possesses. The buttons were also removed from the pattern as the finger dexterity required would pose difficulty for any individual with even slightly reduced dexterity. The wearers left shoulder was attached with Velcro dots. The base shoulder used three Velcro dots to attach the front and back shoulder and the wrap over used two Velcro dots (which were offset from the base three dots to avoid excess bulk caused by stacking them). Velcro dots were chosen over Velcro strips to decrease the amount of hand strength and finger dexterity needed to open and close them. The left shoulder construction was kept.



Figure 1 wrap top on a form




Figure 2 wrap top unwrapped



Figure 3 Wrap top partial wrap



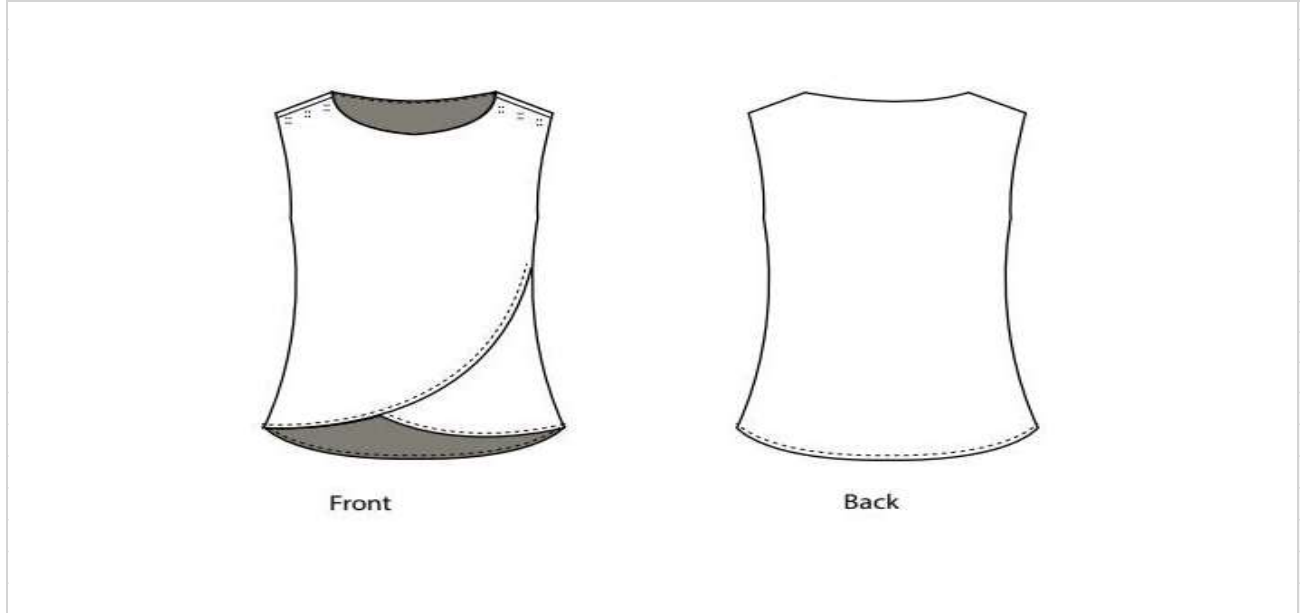
Figure 4 Wrap top with closures secured

Address: TBA		
Phone: 765-299-6879		
Email: backaliboutique1123@gmail.com		
Garment Information		
Group Name: Basics		
Classification: Womens		
Season: Summer 2022		
Garment Label: Robbie		
Fabric Content: Shell 100% silk Linner 55%Hemp, 45% Cotton		
Colorway: Black, White		
Group Name: Basics		
Classification: Womens		
Date Created: 08 July 2021	Date Modified: 10 August 2021	Release Date: 14 March 2022

Technical package 1 Wrap Top Design Sheet


Illustration Sheet Page #02

Company Name: Mobile Apparel	Style #1001	
	Group Name: Basics	
Address: TBA	Classification: Womens	Season: Summer 2022
Phone: 765-299-6879	Garment Label: Robbie	
Email: backaliboutique1123@gmail.com	Colorway: Black, White	



Fabric Information	Style width	Size Range	Date	Comments
Shell 100% Slik/ Linner 55% Hemp,45% Cotton	Shell Black 45" /Linner bleach white 53"	XS-S-M-L-XL-XXL Sample size M	10-Jan-22	Delivery Date Estimated
Date Created: 08 July 2021		Date Modified: 10 August 2021	Release Date: 14 March 2022	

Technical package 2 Wrap Top Illustration Sheet

Fabric Sheet		Page #03		
Company Name: Mobile Apparel				
Address: TBA		Group Name: Basics		
Phone: 765-299-6879		Classification: Womens	Season: Summer 2022	
Email: backaliboutique1123@gmail.com		Garment Label: Robbie		
Sketch		Swatch		
				
Fabric Information	Style width	Size Range	Delivery Date	Comments
Shell 100% Slik/ Linner 55% Hemp,45% Cotton	Shell Black 45" /Linner bleach white 53"	XS-S-M-L-XL-XXL Sample size M	10-Jan-22	Delivery Date Estimated
Date Created: 08 July 2021		Date Modified: 10 August 2021		Release Date: 14 March 2022

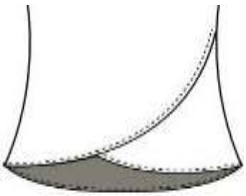

Technical package 3 Wrap Top Fabric Sheet

Component Sheet				Page #04	
Company Name: Mobile Apparel					
Address: TBA		Group Name: Basics			
Phone: 765-299-6879		Classification: Womens		Season: Summer 2022	
Email: backaliboutique1123@gmail.com		Garment Label: Robbie			
		Colorway: Black, White			
Item-Vendor-Code-Orgin	Content	Size-Quantity-Unit of Measure	Location	Color	Comments
Thread	100% Polyester	Spool 5000, as needed per garment	All over	White #0001	
Velcro		8 pairs per garment	3 at each shouder, 1 at each side seam		
Date Created: 08 July 2021		Date Modified: 10 August 2021		Release Date: 14 March 2022	

Technical package 4 Wrap Top Component Sheet

Label/Packing Sheet				Page #05
Company Name: Mobile Apparel		Style #:1001		
		Group Name: Basics		
Address: eI		Classification: Womens	Season: Summer 2022	
Phone: 765-299-6879		Garment Label: Robbie		
Email: backaliboutique1123@gmail.com		Colorway: Black, White		
Item-Vendor-Code-Orgin	Content	Size-Quantity-Unit of Measure	Location	Color
Designer Label	100% Polyester	1 per Garment	Center back neck	White, black, blue
Size Label	100% Polyester	1 per Garment	Center back neck to right of designer label	White, Black
Care/Content Label	100% Polyester	1 per Garment	Left side seam, 4" from bottom hem	White, Black
Hangtag/Barcode	Card Stock	1 per Garment	Attach with safty pin under left sleeve	White, black, blue
Hanger	Plastic	1 per Garment	Garment to be hung on hanger	Clear
Garment Bag	Plastic	1 per Garment	Over garment on hanger	Clear
Date Created: 08 July 2021		Date Modified: 10 August 2021		Release Date: 14 March 2022

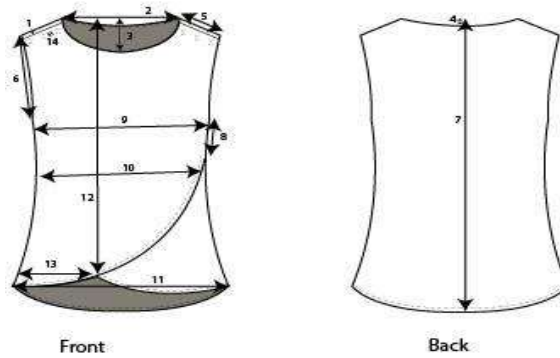
Technical package 5 Wrap Top Label/Packing Sheet

Detail/Construction Sheet				Page # 06	
Company Name: Mobile Apparel		Style #:1001			
Address: TBA		Group Name: Basics			
Phone: 765-299-6879		Classification: Womens		Season: Summer 2022	
Email: backaliboutique1123@gmail.com		Garment Label: Robbie			
Detail		Colorway: Black, White			
Detail		Detail			
 <p>Front</p>					
Fabric Information	Style width	Size Range	Delivery Date	Comments	
Shell 100% Slik/ Linner 55% Hemp,45% Cotton	Shell Black 45" /Linner bleach white 53"	XS-S-M-L-XL-XXL Sample size M	10-Jan-22	Delivery Date Estimated	
Date Created: 08 July 2021		Date Modified: 10 August 2021		Release Date: 14 March 2022	

Technical package 6 Wrap Top Detail/Construction Sheet

Specification Sheet	Page #07
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Company Name: Mobile Apparel	Style #:1001	
Address: 11034 Oak Forest Parkway Dr. St. Louis MO, 6146	Group Name: Basics	
	Classification: Womens	Season: Summer 2022
Phone: 765-299-6879	Garment Label: Robbie	
Email: backaliboutique1123@gmail.com	Colorway: Black, White	
Technical Sketch		



Code	Point of Mesure	Tolerance +/-	XS	S	M	L	XL	XXL
1	Forward shoulder	1/4"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
2	Neck openign at HPS	1/4"	10"	10"	10"	10"	10"	10"
3	Frnt neck drop form HI	1/4"	5"	5"	5"	5"	5"	5"
4	Back neck drop form H	1/4"	1"	1"	1"	1"	1"	1"
5	Shoulder Width	1/4"	2 1/2"	3 1/2"	4 1/2"	5 1/2"	6 1/2"	7 1/2"
6	Armcyce straight	1/4"	8"	8 1/2"	9"	9 1/2"	10"	10 1/2"
7	HPS to back hem	1/4"	30"	30"	30"	30"	30"	30"
8	Wrap placment from l	1/4"	2"	2"	2"	2"	2"	2"
9	Bust 1" below armcyce	1/2"	40"	42"	44"	46"	48"	50"
10	Waist 8" below armcyce	1/2"	32"	34"	36"	38"	40"	42"
11	Hem straight	1/2"	43"	45"	47"	49"	51"	53"
12	HPS to front over lap	1/4"	26"	26"	26"	26"	26"	26"
13	Over lap placement fo	1/4"	4"	4 1/2"	5"	5 1/2"	6"	6 1/2"
14	Velcro dot spacing	1/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
Comments: Check point of mesure 1 pe			Date Modified: 10 August 2021			Release Date: 14 March 2022		
Date Created: 08 July 2021								

Prototype – Pant

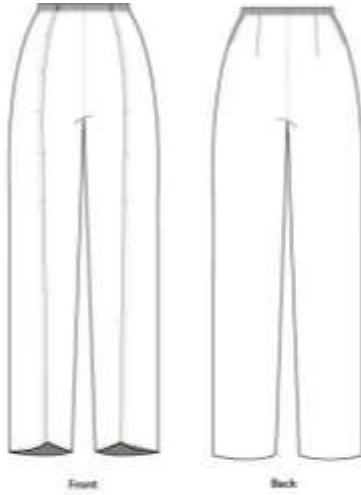
The pant went through a series of sketches with the goal of balancing the fullness that often accompanies a wrap pant with the professional style that is the goal of this endeavor. The pant was then patterned with the same base sloper size as the wrap top. Waist darts were used to create base shaping around the hips that is in line with classic dress pants. The center back rise was raised by one inch to increase the coverage for a seated person. To create the wrap style, the base pattern of the back was merged with the base pattern of the front at the hipline. A side dart was added from the waist to the hip line to create shaping where the side seam would traditionally be. The distance between the back hem and front hem was added into the fullness of the pant. The sketch indicated the back should wrap over and end at the princess seam, falling down the middle front of each leg. This was achieved by locating the mid points at the side front, knee, and hem of the front pant. The midpoint marks were connected, and the line curved appropriately to follow the body's curves. The excess from the center front was trimmed away. The front pant pattern piece kept the base sloper dimensions and instead of adding standard seam allowance at the side seam, allowance for closures were added. In the construction phase Velcro dots were used both at the side seams and at the princess line where the back pant wraps. When receiving feedback, the option of using magnets for closures was brought up. At the time more research was needed to determine if magnets were a viable option. Figure 4 Wrap pant



Figure 5 Wrap pant



Figure 6 Wrap Pant unwrapped

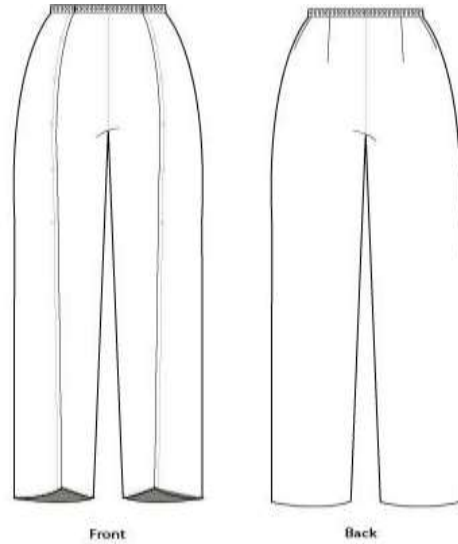
Design Sheet		Page #01			
Company Name: Mobile Apparel	Style #2001				
Address: TBA					
Phone: 765-299-6879					
Email: backaliboutique1123@gmail.com					
Garment Information					
Group Name: Basics					
Classification: Womens					
Season: Summer 2022					
Garment Label: Robbie					
Fabric Content: 90% Cotton, 10% Lycra					
Colorway: Black, White					
Description: Wrap pant with elastic waist band					
Date Created: 08 July 2021	Date Modified: 10 August 2021	Release Date: 14 March 2022			

Technical package 8 Wrap Pant Design Sheet

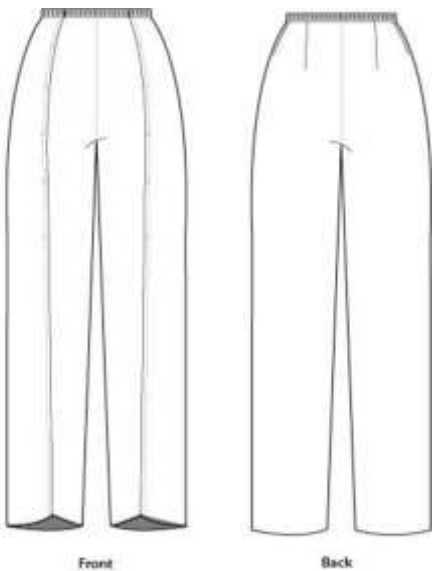

Illustration Sheet Page #02

Company Name: Mobile Apparel	Style #2001	
	Group Name: Basics	
Address: TBA	Classification: Womens	Season: Summer 2022
Phone: 765-299-6879	Garment Label: Robbie	
Email: backaliboutique1123@gmail.com	Colorway: Black, White	

Sketch



Fabric Information	Style width	Size Range	Date	Comments
90% Cotton, 10% Lycra	Black 60" , White 60"	XS-S-M-L-XL-XXL Sample size M	10-Jan-22	Delivery Date Estimated
Date Created: 08 July 2021		Date Modified: 10 August 2021	Release Date: 14 March 2022	

Fabric Sheet		Page #03		
Company Name: Mobile Apparel		Style #2001		
Address: TBA		Group Name: Basics		
Phone: 765-299-6879		Classification: Womens		
Email: backaliboutique1123@gmail.com		Season: Summer 2022		
		Garment Label: Robbie		
		Colorway: Black, White		
Sketch		Swatch		
				
Fabric Information	Style width	Size Range	Delivery Date	Comments
90% Cotton, 10% Lycra	Black 60" , White 60"	XS-S-M-L-XL-XXL Sample size M	10-Jan-22	Delivery Date Estimated
Date Created: 08 July 2021		Date Modified: 10 August 2021		Release Date: 14 March 2022


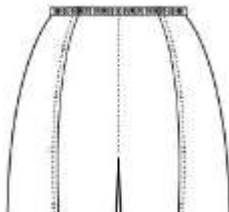
Technical package 10 Wrap Pant Fabric Sheet

Component Sheet					Page #04
Company Name: Mobile Apparel					
Address: TBA			Group Name: Basics		
Phone: 765-299-6879			Classification: Womens	Season: Summer 2022	
Email: backaliboutique1123@gmail.com			Garment Label: Robbie		
			Colorway: Black, White		
Item-Vendor-Code-Orgin	Content	Size-Quantity-Unit of Measure	Location	Color	Comments
Thread	100% Polyester	Spool 5000, as needed per garment	All over	White #0001	
Velcro dots		1" diameter-8 pairs per garment	4 on each side of front wrap	White #0001	
Elastic		1" wide- as needed per garment	At waist	White #0001	
Hook and bar	Metal	3/4" wide- 2 pair per garment	On elastic at front wrap	Silver	
Date Created: 08 July 2021		Date Modified: 10 August 2021		Release Date: 14 March 2022	

Technical package 11 Wrap Pant Component Sheet

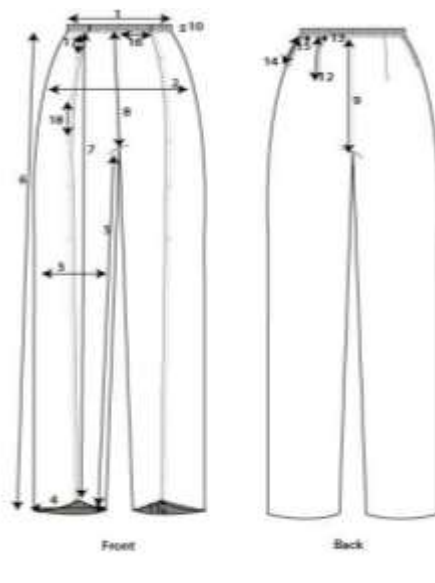
Label/Packing Sheet				Page #05
Company Name: Mobile Apparel		Style #:2001		
		Group Name: Basics		
Address: TBA		Classification: Womens	Season: Summer 2022	
Phone: 765-299-6879		Garment Label: Robbie		
Email: backaliboutique1123@gmail.com		Colorway: Black, White		
Item-Vendor-Code-Orgin	Content	Size-Quantity-Unit of Measure	Location	Color
Designer Label	100% Polyester	1 per Garment	Center back waist	White, black, blue
Size Label	100% Polyester	1 per Garment	Center back waist to right of designer lable	White, Black
Care/Content Label	100% Polyester	1 per Garment	Left side seam, 8" from bottom hem	White, Black
Hangtag/Barcode	Card Stock	1 per Garment	Attach with safty pin at waist seam on left side	White, black, blue
Hanger	Plastic	1 per Garment	Garment to be hung on hanger	Clear
Garment Bag	Plastic	1 per Garment	Over garment on hanger	Clear
Date Created: 08 July 2021		Date Modified: 10 August 2021		Release Date: 14 March 2022

Technical package 12 Wrap Pant Label/Packing Sheet

Detail/Construction Sheet				Page # 06
Company Name: Mobile Apparel		Style #:2001		
Address: TBA		Group Name: Basics		
Phone: 765-299-6879		Classification: Womens	Season: Summer 2022	
Email: backaliboutique1123@gmail.com		Garment Label: Robbie		
Detail		Colorway: Black, White		
 <p style="text-align: center;">Front</p>				
Fabric Information	Style width	Size Range	Delivery Date	Comments
90% Cotton, 10% Lycra	Black 60" , White 60"	XS-S-M-L-XL-XXL Sample size M	10-Jan-22	Delivery Date Estimated
Date Created: 08 July 2021		Date Modified: 10 August 2021		Release Date: 14 March 2022

Specification Sheet	Page #07
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Company Name: Mobile Apparel	Style #:2001	
Address: TBA	Group Name: Basics	
	Classification: Womens	Season: Summer 2022
Phone: 765-299-6879	Garment Label: Robbie	
Email: backaliboutique1123@gmail.com	Colorway: Black, White	
Technical Sketch		



Code	Point of Mesure	Tolerance +/-	XS	S	M	L	XL	XXL
1	Width at wasit band (L	1/2"	28"	30"	32"	34"	36"	38"
2	Width at hips (8" belo	1/2"	42"	44"	46"	48"	50"	52"
3	Knee width 14" below	1/4"	12"	13"	14"	15"	16"	17"
4	Opening at hem	1/4"	12"	13"	14"	15"	16"	17"
5	Inseam	1/4"	28"	28"	28"	28"	28"	28"
6	Outseam from waist s	1/4"	36"	36"	36"	36"	36"	36"
7	Front wrap from waist	1/4"	33"	33"	33"	33"	33"	33"
8	Frotn crotch length	1/4"	10"	11"	12"	13"	14"	15"
9	Back crotch length	1/4"	12"	13"	14"	15"	16"	17"
10	Elastic height	1/4"	1"	1"	1"	1"	1"	1"
11	Hem difference at wra	1/4"	3"	3"	3"	3"	3"	3"
12	Back dart length	1/4"	6"	6"	6"	6"	6"	6"
13	Back dart depth	1/4"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
14	Side dart length	1/4"	4"	4"	4"	4"	4"	4"
15	Side dart depth	1/8"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
16	Bar placemtn forn CF	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"
17	First velcro from waist	1/4"	4"	4"	4"	4"	4"	4"
18	Velcro spacing	1/4"	5"	5"	5"	5"	5"	5"

Comments: Check point of mesure 1 per 50 garemnts produced

Date Created: 08 July 2021	Date Modified: 10 August 2021	Release Date: 14 March 2022
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Prototype – Vest

The vest was only sketched once. The idea of what was needed was strong enough that a proper series of sketches was not needed. The first pattern used the same sloper base as the wrap top. In the patterning process all darts were removed to simplify the pattern into a side front and a center back piece. The armhole was elongated to provide maximum comfort and the center front was extended to form a lapped front. Two prototypes were made for the vest. The first assumed a construction style with turned up hems and standard seam construction. As this garment is intended to serve as an under garment with pockets for drainage tubes post-surgery the base fabric needs to have stretch for comfort. The first prototype was made with fabric that allowed too much stretch and could not support pockets. The second prototype was made with additional seam allowance and constructed with ½ inch bias tape to stabilize seams and provide support for the pockets.



Figure 7 Drainage vest 1st prototype front view



Figure 8 Drainage vest 1st prototype side view



Figure 9 Drainage vest 1st prototype back view



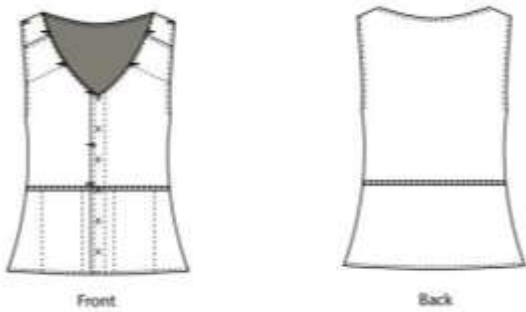
Figure 10 Drainage vest 2nd prototype front view



Figure 11 Drainage vest 2nd prototype side view



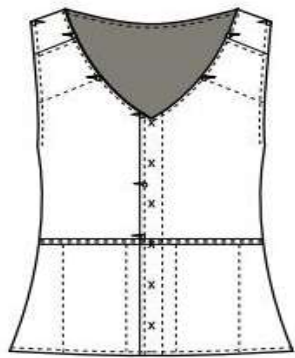
Figure 12 Drainage vest 2nd prototype back view

Address: TBA				
Phone: 765-299-6879				
Email: backaliboutique1123@gmail.com				
Garment Information				
Group Name: Basics				
Classification: Womens				
Season: Summer 2022				
Garment Label: Robbie				
Fabric Content: Shell 100% Rayon				
Colorway: White				
Description: Multi pocket vest				
Date Created: 08 July 2021	Date Modified: 10 August 2021	Release Date: 14 March 2022		

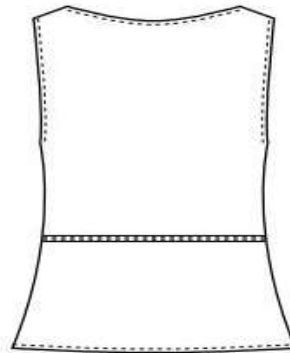
Technical package 15 Drainage Vest Design Sheet

Illustration Sheet Page #02

Company Name: Mobile Apparel	Style #3001	
	Group Name: Basics	
Address: TBA	Classification: Womens	Season: Summer 2022
Phone: 765-299-6879	Garment Label: Robbie	
Email: backaliboutique1123@gmail.com	Colorway: White	
Sketch		



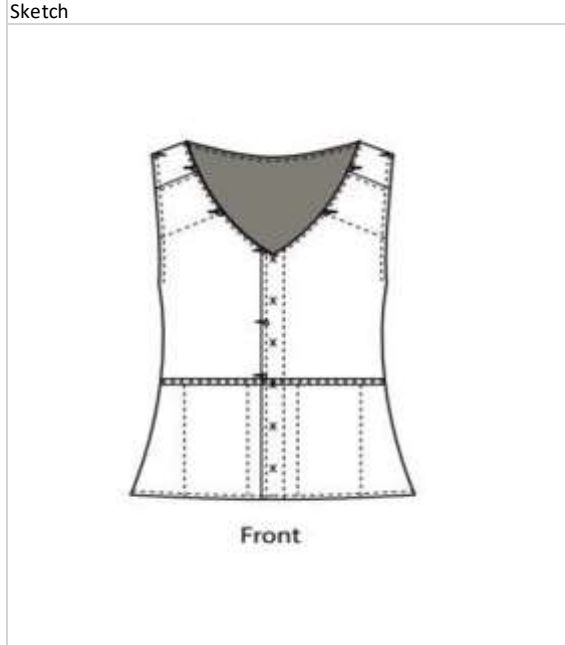
Front



Back

Fabric Information	Style width	Size Range	Date	Comments
Shell 100% Rayon	Shell White 62'''	XS-S-M-L-XL-XXL Sample size M	10-Jan-22	Delivery Date Estimated
Date Created: 08 July 2021		Date Modified: 10 August 2021	Release Date: 14 March 2022	

Fabric Sheet		Page #03	
Company Name: Mobile Apparel		Style #3001	
Address: TBA		Group Name: Basics	
Phone: 765-299-6879		Classification: Womens	
Email: backaliboutique1123@gmail.com		Season: Summer 2022	
		Garment Label: Robbie	
		Colorway: White	



Fabric Information	Style width	Size Range	Delivery Date	Comments
Shell 100% Rayon	Shell white 62'''	XS-S-M-L-XL-XXL		
Date Created: 08 July 2021		Sample size M	10-Jan-22	Delivery Date Estimated
		Date Modified: 10 August 2021		Release Date: 14 March 2022

Technical package 17 Drainage Vest Fabric Sheet

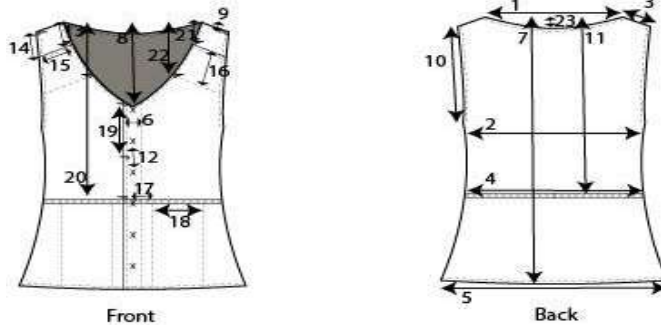
Component Sheet					Page #04
Company Name: Mobile Apparel			Style #3001		
Address: TBA			Group Name: Basics		
Phone: 765-299-6879			Classification: Womens	Season: Summer 2022	
Email: backaliboutique1123@gmail.com			Garment Label: Robbie		
			Colorway: White		
Item-Vendor-Code-Orign	Content	Size-Quantity-Unit of Measure	Location	Color	Comments
Thread	100% Polyester	Spool 5000, as needed per garment	All over	White #0001	
Velcro dots		1" diamater-6 pairs per garment	At center front placket	White #0001	
Bias binding	100% polyester	1/2" wide as needed per garment	At waist	White #0002	
Snap	Metal	1/4" - 9 pairs per garment	At outer shoulder seam, along neck edge, on center front placket	Silver	
Date Created: 08 July 2021		Date Modified: 10 August 2021		Release Date: 14 March 2022	

Technical package 18 Drainage Vest Component Sheet

Label/Packing Sheet				Page #05
Company Name: Mobile Apparel		Style #:3001		
		Group Name: Basics		
Address: TBA		Classification: Womens	Season: Summer 2022	
Phone: 765-299-6879		Garment Label: Robbie		
Email: backaliboutique1123@gmail.com		Colorway: White		
Item-Vendor-Code-Orign	Content	Size-Quantity-Unit of Measure	Location	Color
Designer Label	100% Polyester	1 per Garment	Center back neck	White, black, blue
Size Label	100% Polyester	1 per Garment	Center back neck to right of designer label	White, Black
Care/Content Label	100% Polyester	1 per Garment	Left side seam, 4" from bottom hem	White, Black
Hangtag/Barcode	Card Stock	1 per Garment	Attach with safty pin under left sleeve	White, black, blue
Hanger	Plastic	1 per Garment	Garement to be hung on hanger	Clear
Garment Bag	Plastic	1 per Garment	Over garment on hanger	Clear
Date Created: 08 July 2021		Date Modified: 10 August 2021		Release Date: 14 March 2022

Technical package 19 Drainage Vest Label/Packing Sheet

Specification Sheet		Page #07	
Company Name: Mobile Apparel		Style #:3001	
		Group Name: Basics	
Address: TBA		Classification: Womens	Season: Summer 2022
Phone: 765-299-6879		Garment Label: Robbie	
Email: backaliboutique1123@gmail.com		Colorway: Black, White	
Technical Sketch			



Code	Point of Mesure	Tolerance +/-	XS	S	M	L	XL	XXL
1	Neck opening HPS-HPS	1/4"	9"	9"	9"	9"	9"	9"
2	Across bust, 1" below under arm	1/2"	40"	42"	44"	46"	48"	50"
3	Shoulder width	1/4"	2"	2"	2"	2"	2"	2"
4	Across waist at binding	1/2"	32"	34"	36"	38"	40"	42"
5	Hem width (straight across)	1/2"	43"	45"	47"	49"	51"	53"
6	Placket width	1/4"	1"	1"	1"	1"	1"	1"
7	HPS to hem	1/2"	24"	24"	24"	24"	24"	24"
8	CF neck drop form HPS	1/4"	8"	8"	8"	8"	8"	8"
9	Forward shoulder	1/4"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
10	Armcyce opengin, straight	1/4"	10 1/2"	10 3/4"	11"	11 1/4"	11 1/2"	11 3/4"
11	Waist binding from HPS	1/4"	18"	18"	18"	18"	18"	18"
12	Velcro spacing	1/4"	2"	2"	2"	2"	2"	2"
13	Pocket placement form HPS	1/4"	2"	2"	2"	2"	2"	2"
14	Pocket placemtn form outside shoulder	1/4"	2 1/2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"
15	Upper Pocket opening	1/4"	3"	3"	3"	3"	3"	3"
16	Upper pocket Depth	1/4"	4"	4"	4"	4"	4"	4"
17	Lower pocket placemnt form CF	1/4"	2"	2"	2"	2"	2"	2"
18	Lower pocket width	1/4"	4"	4"	4"	4"	4"	4"
19	Snap spacign on CF placket	1/4"	3"	3"	3"	3"	3"	3"
20	Botton snap from HPS	1/4"	4"	4"	4"	4"	4"	4"
21	Top Neck snap form HPS	1/4"	4"	4"	4"	4"	4"	4"
22	2nd neck snap form HPS	1/4"	6"	6"	6"	6"	6"	6"
23	Back neck drop from HPS	1/4"	1"	1"	1"	1"	1"	1"

Comments: All mesuremnts to be taken with garment on flat surface. Circumference mesuremntns on the fold Check point of mesure 1 p
 Date Created: 08 July 2021 Date Modified: 10 August 2021 Release Date: 14 March 2022

Conclusions

Each of the prototypes accomplished the base goals of designing apparel that accommodates need of the limited mobility and post-surgical market. The closures are the key to any design for this market. The Velcro dots have proven to be the best option in the above detailed prototypes. The increased cost of magnets and the risk they pose to some medical equipment led to the conclusion that while potentially useful for some individuals (those who will not come into regular contact with equipment that may be magnetically interfered with) this closure option should not be used as the standard. The ease of use the magnets pose indicate it may be prudent to offer closer variations on some garments at the selling level. A customer could choose based on their unique needs between a Velcro closure or a magnetic closure. A disclaimer about the appropriate use of magnets around medical equipment would need to be drafted and checked by a lawyer.

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