

## Glass Reflections

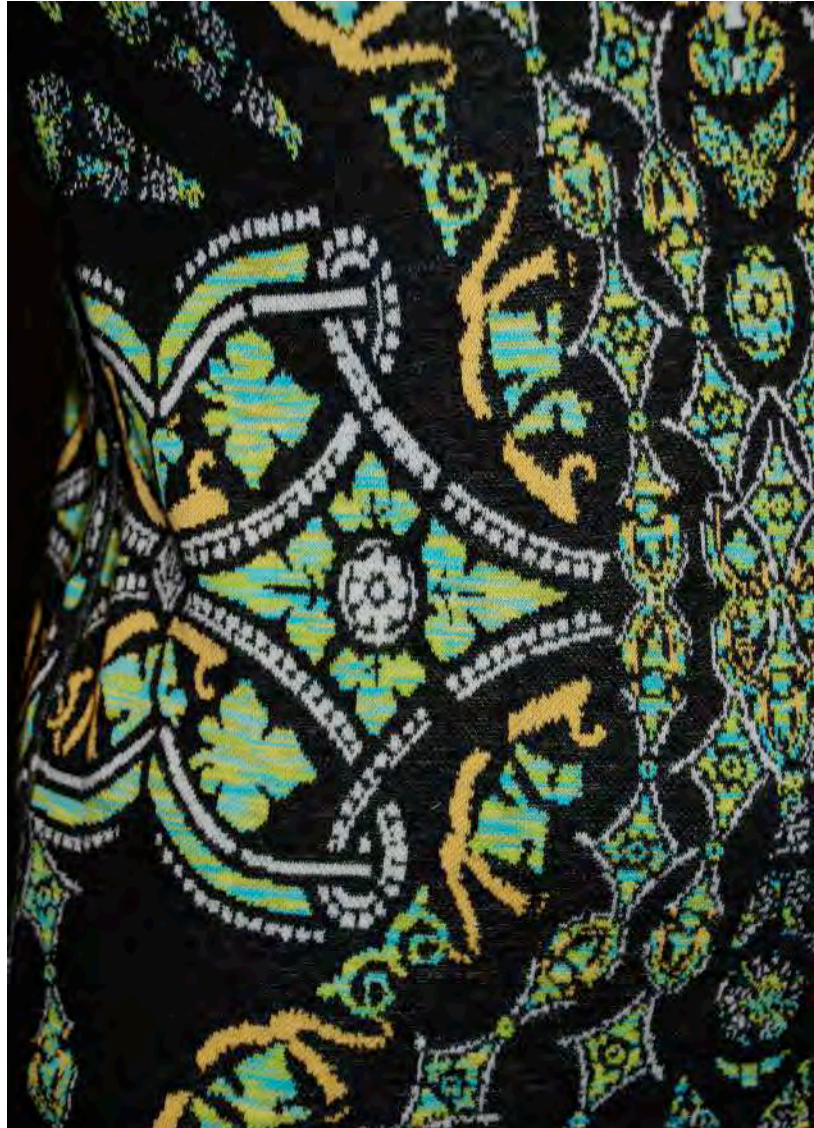
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The objective of knitting this engineered dress was to mix sustainable textiles with beautiful and reproducible design. Using Lectra Kaledo Print and Knit software, the knit dress for *Glass Reflections* became a four-colored piece. By engineering the design, the pattern emphasizes the detail allowed in computer software, while flattering the body in the form.

Produced from 100% cotton yarn, the final dress is not only sustainable, but also easy to care for. Not requiring any additional care in washing of the garment makes an elaborately designed garment practical for many markets.

The pattern was created on Lectra Kaledo Print software by color-reducing photographs of gothic stained glass. After reducing the photos and cropping them to individual elements, putting the elements in created the patterns repeat and organized onto the eventual dimensions of the fabric and dress. The ratio used to create the fabric was one pixel to one knit stitch was used for the entire process.





The four colors used in the dress included a black, sea foam green, yellow, and moss space-dyed yarns. The inclusion of the space-dyed yarn provided the pattern with even more dimension beyond what the restrictive pixel and color requirements provide. These additional colors in one yarn give the pattern another element to the sustainability to the engineered dress design.

By creating the front and back in the same pattern, the knitting machine was able to produce the fabric in half the time. The knitting machine produces the fabric in a round, duplicating the pattern as it knits. Taking this into mind, the engineered print of the knitted dress is a sustainable way to reduce fabric waste while still keeping the integrity of flattering and innovative design.

The design itself, while comprised of stained glass elements, reflects the Gothic period of art and architecture. Intricate designs, detail surrounding the entire piece, and contrasting light and dark colors are present throughout the dress, reflecting the ideals of stained glass in church architecture.

The overall garment measurements of the garment are: Bust 35", Waist 30", Low Hips 35", Overall Length 36"