

Kniterate team wants to turn knitwear page with a digital machine

April 4 2017, by Nancy Owano



(Tech Xplore)—Consider. scarves, beanies, ties, even assembling your

own dresses and sweaters—designing and making knitwear may never be quite the same.

Faster, easier, times ahead are possible if this digital knitting machine concept swings into production with the right amount of good fortune and funding.

Erin Hobey wrote about the machine in *Crowdfund Insider*. The group behind it wanted to bring an affordable, compact version of industrial knitting [machines](#) to workshops and homes. It's the kind of machine that could support a business trying to scale up as well as support a business just starting out.

Quoted in *Geek.com*: "Until now the production of clothing has been in the hands of a few companies or skilled individuals," co-founder Gerard Rubio said in a statement. "Kniterate was born to change that, and to democratize clothing manufacturing."

At [design](#) school Rubio watched fashion students struggle with old knitting machines. Rubio started this project four years ago and assembled a team to bring forth [Kniterate](#).

Stephanie Mlot in *Geek.com* said Kniterate works like a 3D printer, "using yarn to 'print' digital clothing files." Lulu Chang in *Digital Trends* said, "it's an industrial knitting machine that will fit on your desk and turn your digital designs into knitted pieces of [clothing](#)." Kniterate is all about computerizing the vast majority of the process. "The Kniterate automatically turns user's digital designs into knitted garments," said Hobey.

The Kniterate team turned to Kickstarter. They are getting a substantial welcome from supporters.

"All you have to do is create your design (either from scratch or using one of the provided [templates](#)), then let Kniterate knit it for you, either completing the entire garment or producing pieces that you can easily assemble," according to *Digital Trends*. "From there, you can wear, gift, or sell your creations, and share them online with the broader Kniterate community."



The machine coupled with software will help fashion enthusiasts create items, after which they may want to share them online in the form of a digital wardrobe.

A few interesting features about the machine: The campaign page site said the knitting machine has yarn tensioners, which detect yarn breakage and large knots. There is an emergency stop button. Also, the knitting machine has 6 yarn carriers. So, you can use up to 6 different yarns (different colors and/or materials) per row.

Those in the business of designing garments would find the machine system helpful as in less headaches over excess stock or waste. It enables small-scale runs to test swatches and new stitches "without tech pack worry," said Hobey.

Kniterate software will come free with the machine. According to the funding page, "There will be a browser-based version and a standalone version (Mac and Windows compatible), the files will be loaded onto the machine via an SD card or USB."

An online library of templates will be integrated into the design app. The machine can be a tool to prototype new wearables, with a library of templates and up to six feeders for different colors and materials. One can use standard templates from Kniterate for designing or create from scratch.

Geek.com summarized the process. "Design your own garments, edit templates, or upload images, choose a preferred color and material, then press 'knit.'"

How does the machine work its magic? "Hundreds of computer-controlled needles move back and forth in [waves](#), creating loops which, when combined, create knitwear," said Mlot.

At the time of this writing, the machine is offered for \$4,699 on Kickstarter. The target shipping date is April 2018.

Varied talents include 3D printing and scientific [instrumentation](#).

A desktop garment design and manufacturing solution is quite noteworthy in the bigger picture. Quoted in *Geek.com*, Jouke Verlinden, assistant professor of computer-aided design engineering at the Netherlands' Delft University of Technology, said in a statement, "This will disrupt and compress the overly complicated and wasteful supply chain between designer and end user."

Potential applications may even go beyond knitwear, ranging from medical devices and aerospace components to technical apparel and sports equipment.

More information: [www.kickstarter.com/projects/k ... tal-knitting-machine](http://www.kickstarter.com/projects/k...tal-knitting-machine)

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