

THE SCIENTIFIC APPROACH

auto knits, sewing symphonies, crafty coding and wearable tweets!

Look what you get when you mix craft with technology.
Janai Velez visits the twilight zone of sci-fi craft
– the meeting place of Einstein and Nana!



Making beautiful music from lovely old Singers.

1. SEWING-MACHINE ORCHESTRA

The inventor: Martin Messier
Website: www.mmessier.com

LAYMAN'S TERMS: Strategic microphone placement, along with motor adjustment and tweaks 'tune' the sewing machines to different pitches. Music to your ears!

SPECIFICS: He may not be a stitcher himself but Martin Messier loves old Singer sewing machines so much he makes music of their old engines. "I'd never been in contact with old Singer machines before working on this project. But when I first saw one, I found it really beautiful and I perceived its musical potential. What I've done is created a light and sound performance from this existing technology. Since the machines had lights, it made sense to incorporate them into what I was doing. The finished project is a balance between the mechanical sounds the machines make while operating and the electrical tones from the motors. The machines are amplified in a specific way by using different microphone placement to achieve varying sounds. Plus, by dimming the motors to a specific value, I effectively tune the machines."



2. A CLOCK THAT KNITS, NOT TICKS

The inventor: Siren Elise Wilhelmsen
Website: www.sirenelisewilhelmsen.com

LAYMAN'S TERMS: A stitch in time – literally! With every passing minute, this 'clock' automatically knits stitches. As the days and months pass, the scarf gets longer and longer.

SPECIFICS: Siren Elise, of S.E.Wilhelmsen Design Studio, came up with the concept of the '365 Knitting Clock' in 2010, followed up by the 'Grandfather Knitting Clock' in 2012. The standing grandfather clock is a limited edition of eight pieces (plus two prototypes), each measuring 45 x 20 x 190cm, and is made out of acrylic glass and wood. "The Knitting Clock is stitching the time as it passes by. It is knitting 24 hours a day and one year at a time, showing the physical representation of time as a creative and tangible force. After 365 days, the clock has turned the passage of time into a two-metre-long scarf. Now the past can be carried out in the future and the upcoming year is hiding in a new spool of thread, still unknitted."

Photography: Alexis Bellavance and Annie Zieleski (sewing machines), Siren Elise Wilhelmsen (clock)



3. QUICK LINK QUILT

The inventor: Krista Hennebury,
 Blog: Poppyprint,
www.poppyprintcreates.blogspot.com

LAYMAN'S TERMS: This black and white pixilation is actually a digital barcode. With the right app on your smart phone or tablet you can instantly link to websites. One crafty stitcher has made her QR Code in quilted form.

SPECIFICS: As Krista says on her blog, her coded and quilted creation is not only graphically interesting it's also totally functional. With the right app, if you scanned it, even on this page, you could link through to her nominated website immediately. "This particular quilt [37 inches square] was created for the Vancouver Modern Quilt Guild. I thought it would be so cool to have this modern quilt to hang at public events. Anyone with a smart phone can scan the quilt and they'll be taken directly to our quilt guild website for more information, membership details and inspiration."

Scan this quilt and you can be linked through to a website.

4. WEARABLE TWEETS & FACEBOOK COMMUNICATION

The inventor: CuteCircuit
 Website: www.cutecircuit.com
 Email: cute@cutecircuit.com

LAYMAN'S TERMS: It's messages on the move in stylish fashion; clothing that illuminates your latest Facebook or Twitter communication.

SPECIFICS: CuteCircuit explains the Twitter Dress technicalities: "This dress was worn for the first time by international singer Nicole Scherzinger on the red carpet at Britain's 4G mobile network EE launch event. The black evening gown is made from French chiffon changeant and is adorned with thousands of hematite Swarovski Elements. It includes the latest technology, lighting up with extraordinary animations that move around the dress. On the launch, fans and press could share their words, by sending tweets in real time directly to the Haute Couture Dress, by using the hashtag, #tweetthedress".

Your tweets and Facebook communications can be worn up front.



TshirtOS – "This is the world's first wearable, sharable, programmable and 100 per cent cotton T-shirt. Interactive fashion gets more real than ever with this CuteCircuit invention. TshirtOS looks like a simple T-shirt but with the extraordinary power to allow you to share your Facebook status and tweets and your favourite songs and pictures. Easy to use, the TshirtOS features 1,024 pixels arranged in a 32 x 32 grid. It is controlled using an app on your mobile phone, allowing you to broadcast nearly anything. It also includes a built-in micro-camera, microphone, accelerometer and speakers," explains CuteCircuit.

5. AUTO REWIND

The inventor: Imogen Hedges, graduate of London's Kingston University
Email: imogen020390@hotmail.com

LAYMAN'S TERMS: Created as a student project, Imogen's Un-Knitting Machine unravels unloved knits and repurposes the yarn by winding it onto a spindle, ready and waiting to be knitted afresh.

SPECIFICS: This canny and creative idea was sparked when Imogen

realised how many hours charity-shop staff spend unravelling home-knitted jumpers, as they can make more money from selling the wool. "My grandmother spent the whole time knitting sweaters but my mum threw them all away once we'd grown out of them because she didn't think anyone would want them. With my machine, you'd be able to take them apart and knit something new," says Imogen. Here's how it works: As the un-knitter sits on a chair pedalling, the wool from the garment passes through the steam coming out of the kettle. It's pulled around the wheel of the bicycle and then collected on a spindle.



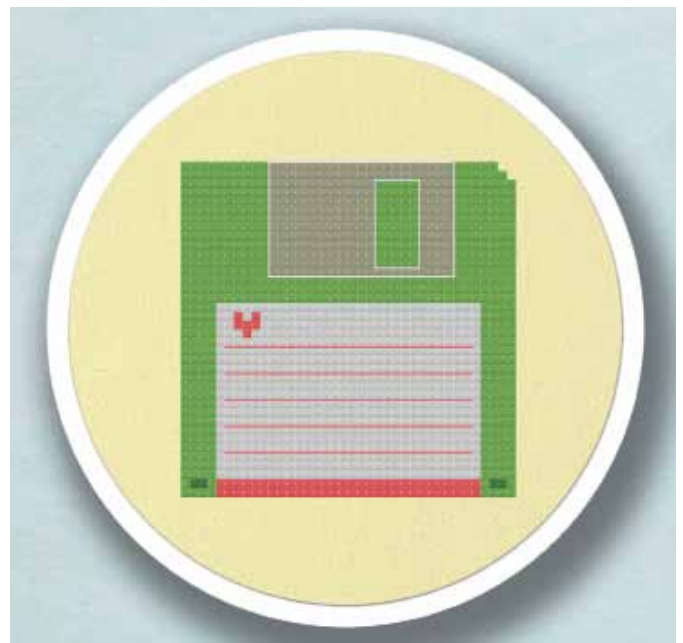
Peddle away and you can unravel old knits.

6. FLOPPY-DISK CROSS-STITCH PATTERN

The inventor: Grace Kim
Company: Andwabisabi Cross Stitch
Etsy shop: www.etsy.com/shop/andwabisabi
Email: andwabisabi@gmail.com

LAYMAN'S TERMS: Adding a technological edge to your embroidery, this floppy-disk pattern speaks more of technology than tradition.

SPECIFICS: You can make the design your own by adding a message on the label and swapping the colours. When using 14 ct. Aida (the suggested fabric), the finished design size will be 2.71 x 2.71in. This cross-stitch pattern is available as a digital download/PDF file.



Cute cross stitching with a floppy disk motif.



7. BRAIN WAVES KNITTING PATTERNS

The inventors: Varvara Guljajeva, Mar Canet and Sebastian Mealla
Website: www.knitic.com
Emails: mar.canet@gmail.com,
varvarag@gmail.com,
smealla@gmail.com

LAYMAN'S TERMS: We've previously shown you the amazing Neuro Knitting in our up-front Pin Interest pages, but we thought this exciting invention fitted in perfectly with this science/craft feature – it was too appropriate to overlook. First, they record brainwaves, then the resulting graphic shapes from the reading are used as a machine-knitting pattern.

SPECIFICS: Varvara Guljajeva, Mar Canet and Sebastian Mealla recorded participants' brain waves using an EEG headset while they listened to Bach's *Goldberg Variations*. Three aspects were measured – relaxation, excitement and cognitive load. These features were then plotted onto a knitting pattern.



Scanned brainwaves turned into knitting patterns.

8. THE INCREDIBLE ROCKING-CHAIR KNITTING MACHINE

The inventors: Damien Ludi and Colin Peillex, students from ECAL/University of Art and Design Lausanne, in Switzerland
Emails: colin.peillex@ecal.ch,
damien.ludi@ecal.ch

LAYMAN'S TERMS: Sit and rock, and the chair does the knitting for you. The rocking motion automatically creates a little knitted cap.

SPECIFICS: This astonishing rocking chair machine is called Rocking-Knit, and it knits a hat as you relax. Rock back and forth, and the movement of the chair is mechanically transmitted to a knitting machine, called a tricotin, at the top of the structure.



1 Pick up your newspaper, relax and rock back and forth.

2 The rocking chair does the knitting for you – best to check every once in a while.



3 Your finished rocking-chair knitted cap.