



“Smoke Dress” Hits the Volkswagen Catwalk in Frankfurt

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Dutch fashion-tech designer [Anouk Wipprecht](#), with the support of architect [Niccolò Casas](#), has teamed up with Materialise in the creation of an innovative, interactive 3D printed "Smoke Dress" as part of a special eight-piece fashion collection for Volkswagen.

Unveiled in September 2013 at the Volkswagen booth during the International Motor Show (IAA) in Frankfurt, the Smoke Dress automatically creates a veil of smoke whenever someone steps into the personal space of the wearer. The dress is embedded with proximity sensors and a back-mounted, 530 gram, smoke system. Silicon-based smoke fluids ensure that the perfect density of smoke is created.

Made out of polyamide and [TPU 92A-1](#), the first fully-flexible 3D printing material, the dress was produced by Materialise to both provide support to the embedded sensors and smoke system, as well as to have the look and feel of ultra-futuristic fabric. Materialise's [3-maticSTL](#) software was used to create an assembly system for the five different pieces of the dress. And Materialise's [Magics](#) software was used to fix and prepare the design file for 3D printing with laser sintering.

"With interactive designs, the intimate space around the wearer is not that often explored, and with projects like the 3D printed Smoke Dress, I like to create a new kind of dialogue - between our bodies and our surroundings." Anouk Wipprecht

Anouk Wipprecht is an artist, designer, curator, and lecturer who works in the emerging field of "fashion-tech" - a rare combination of fashion and engineering, science, and interaction.

Wipprecht's designs create a connection between technical fabrics and elements that are brought to life by diverse effects. Her pieces have been shown at exhibits and events around the world. For the 2011 "Super Bowl" performance of the "Black Eyed Peas", Wipprecht designed the eye catching outfit for the band's lead singer Fergie.

Niccolò Casas is a designer and architect. He is currently a professor of Digital Modeling at the Accademia di Belle Arti in Bologna and a PhD Candidate at the Bartlett School of Architecture at University College of London, where his focus is on the exploration of digital techniques in the fields of architecture, art, and fashion design. In 2011, Casas created the "Alchemy" collection of 3D printed jewelry and accessories for.MGX by Materialise.

To see the Smoke Dress for Volkswagen in action, we invite you to watch the video on YouTube:

To learn more about the work of [Anouk Wipprecht](#), please visit her website.

To learn more about [TPU 92A-1](#).

For more information about Materialise software: [Magics](#), [3-maticSTL](#)