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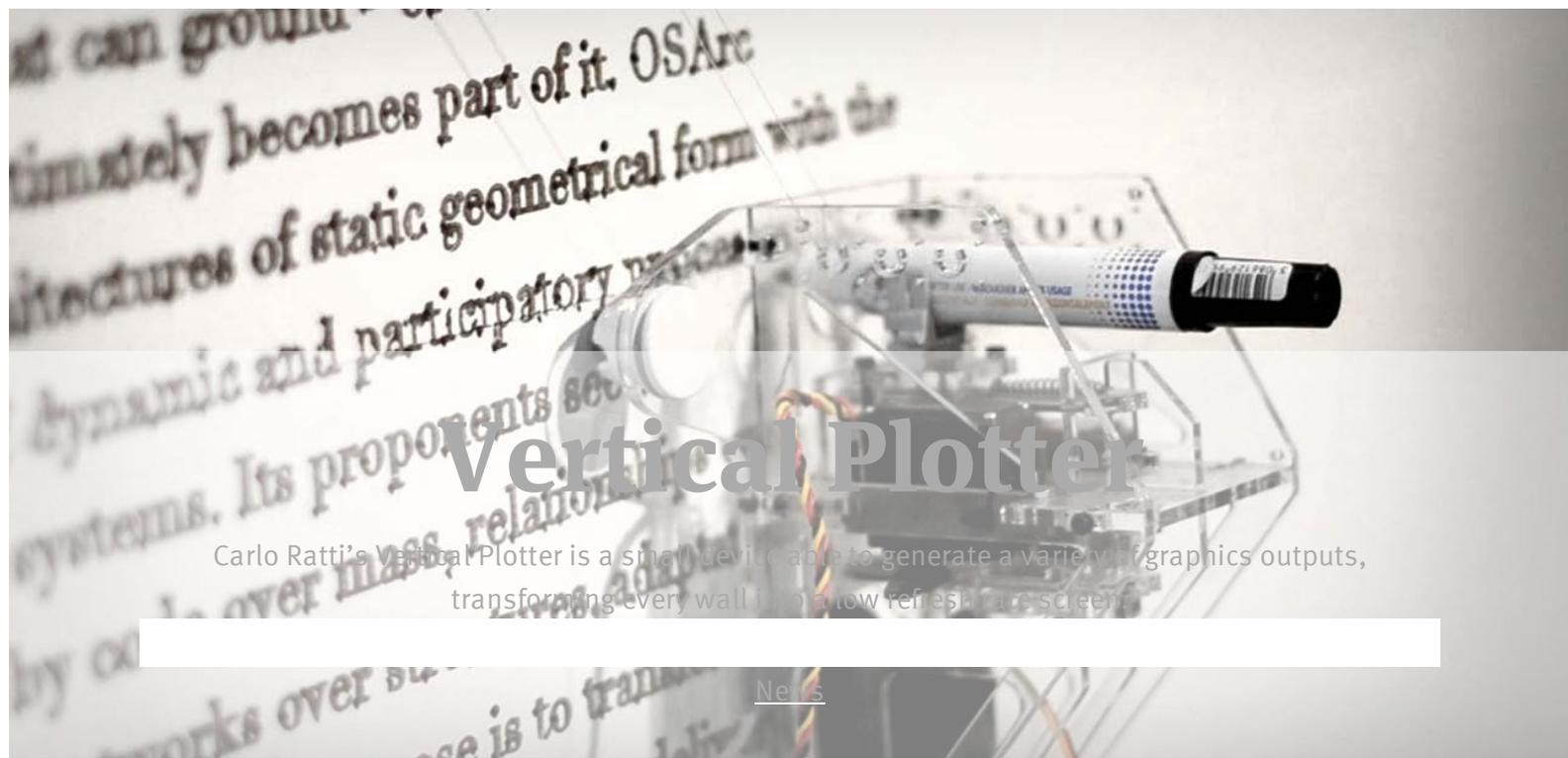
Vertical Plotter

Carlo Ratti's Vertical Plotter is a small device able to generate a variety of graphics outputs, transforming every wall into a low refresh rate screen.

News

Photography
Pietro Leoni

Published
17 October 2014

Location
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Sections
News, Design

Keywords
Arduino, Artissima, Artissima 2014, Carlo Ratti, Carlo Ratti Associati, open source, Pietro Leoni, print, Processing, Vertical Plotter

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At first sight, the Vertical Plotter makes you think about a lunar rover cruising the white surface of the moon, leaving dark trails behind itself while exploring virgin landscapes.

In fact, it isn't but a small device, a "wall rover" travelling on a vertical surface. You write a note or take a picture then, through an application, just send it to the plotter, which

immediately turns the digital data into reality.

Carlo Ratti Associati, Vertical Plotter. 5minutSelfie, Vodafone stand, Berlin IFA, 2014

The aim of its creators was to produce a device able to transform any surface into a huge monitor, allowing people to create art works, shopping lists or memoranda on every surface of their house or workplace. Simplicity and efficiency were the core guidelines. Starting from the experience gained on previous models, they designed a plotter able to cover large surfaces using a minimal amount of components and offering the maximum variety of different graphical outputs.

Based on a lasercut chassis made from MDF or plexiglass, the design of the Vertical Plotter has sought to minimize the number of components needed and simplify as much as possible its assembly and use.

The main innovations which distinguish this brand new model from the older ones are: two on-board motors which stabilize the plotter and make its installation fast and simple, requiring no external components; the use of Processing for the generation of content and framework and of the Arduino platform for the hardware side, which make the plotter easily reproducible, user-friendly and less expansive; and the erasing system, allowing us to transform potentially every surface in a

low-rate refreshable digital screen.
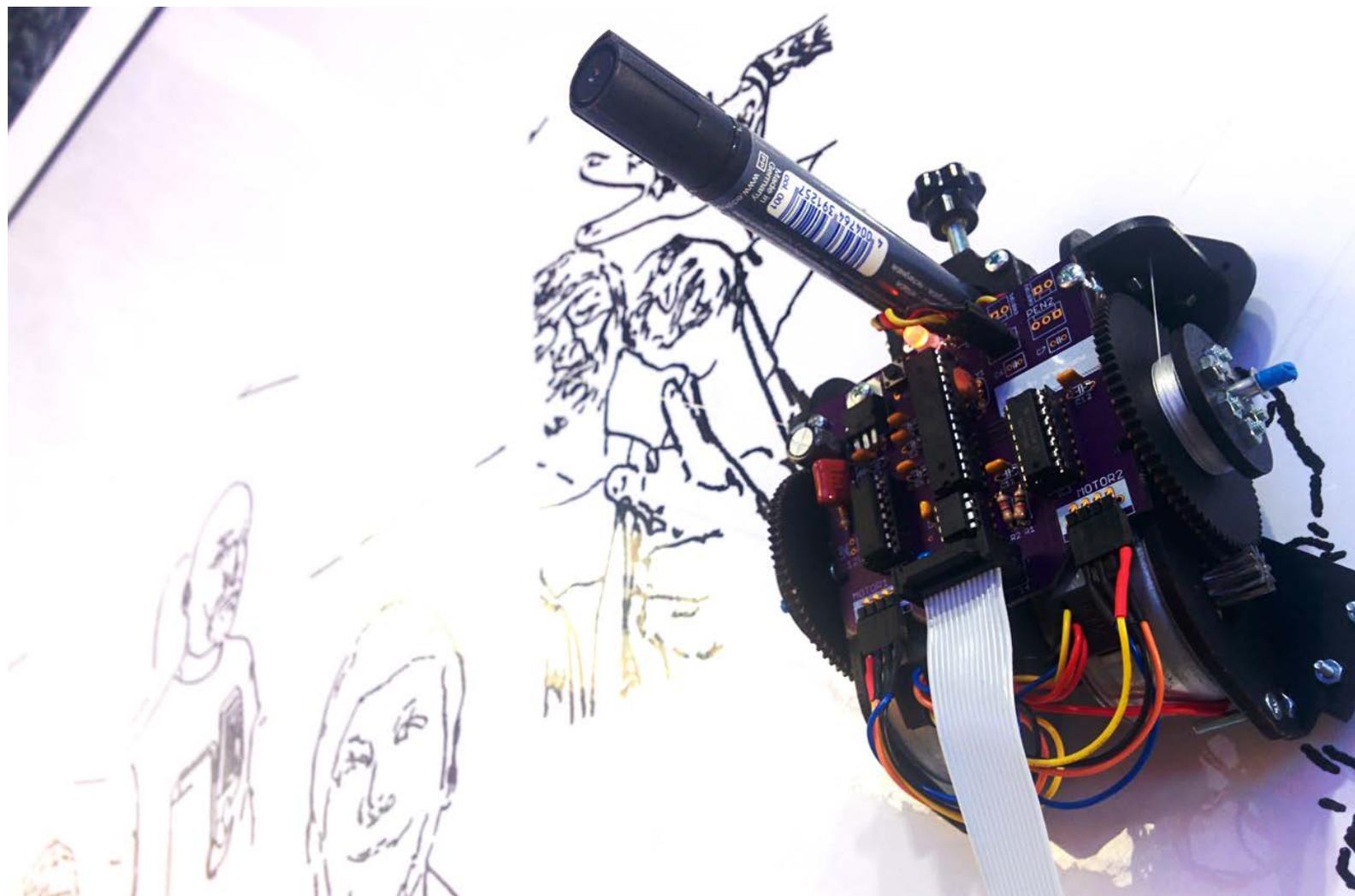
Carlo Ratti Associati, Vertical Plotter. 5minutSelfie, Vodafone stand, Berlin IFA, 2014

The Vertical Plotter is a mediator between the digital and the physical dimensions. With it digital technology presents itself as a contents catalyzer, enhancing our life and making our everyday objects and environment smarter, more interactive, more and more sensitive.

Vertical Plotter is an open-source project which during his three years of life featured the development of different prototypes of vertical plotters, all at the core of various installations: from OsArc at Adhocracy exhibition (Istanbul, 2012) to the 5minutSelfie of the Vodafone stand at Berlin IFA, last September.

The latest version of the plotter will be back on stage in a matter of weeks for the Artissima International Fair of Contemporary Art in Turin (November 8–10).
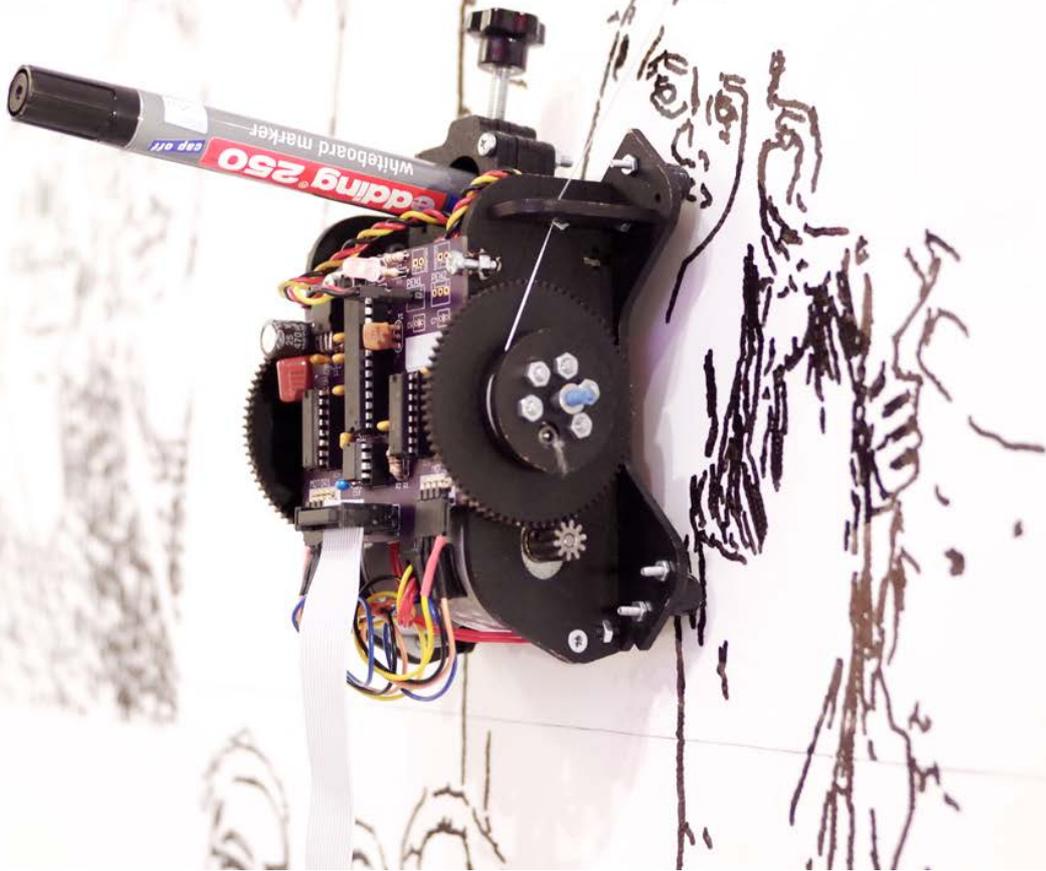
Carlo Ratti Associati, Vertical Plotter. 5minutSelfie, Vodafone stand, Berlin IFA, 2014

Vertical Plotter
Design: Carlo Ratti Associati
Team: Carlo Ratti, Walter Nicolino, Giovanni de Niederhausern, Pietro Leoni (project leader), Antonio Atripaldi, Alberto Bottero, Andrea Cassi, Andrea Galli, Alessandro Incisa
Execution: Pietro Leoni (mechanical, electronic and software design)

Photography
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Sticks and Stones: David Chipperfield starts from traditional founding elements for his installation at the Neue Nationalgalerie

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Mi piace　Piace a Marek Nowicki, Fabio Fraccascia e altre 385.201 persone.

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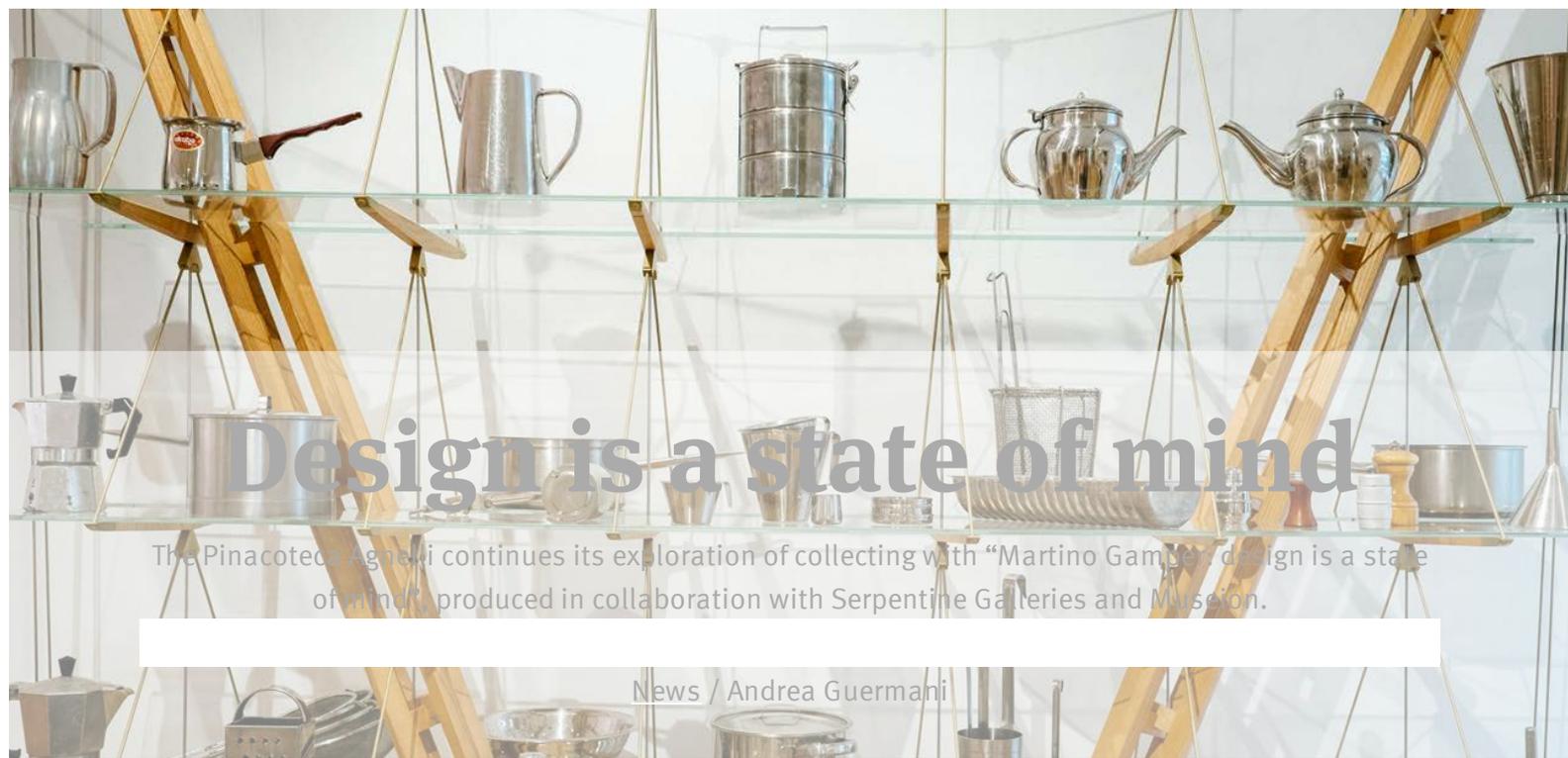
Design is a state of mind

The Pinacoteca Agnelli continues its exploration of collecting with "Martino Gamper, design is a state of mind", produced in collaboration with Serpentine Galleries and Museion.

News / Andrea Guermani

Instant Installation

Instant Installation, by Caterina Tiazzoldi on view at GAM Turin, is "a hybrid between product design and architecture" which can be reconfigured into different shapes.

News / Riky Torta

Vegetation and politics

Hosted by PAV – Parco Arte Vivente in Turin "Vegetation as a Political Agent" describes, from the point of view of social conflict, the deep, passionately-committed and demanding relationship that has always existed between man and plants.

Art / Ilaria Bombelli