Introduction

I started working with robots applied to art around the turn of the century. Aiming at the most possible autonomy of the process, they were the next logical step after experimenting with algorithms confined to the computer environment. I was never interested in “digital art”. The first experiences, with an ant algorithm running on a computer connected to a robotic arm [fig. 1], showed the potential for a machine to create its own drawings and paintings as a kind of artificial creativity.

Artisbot, a swarm of art robots produced in 2003, demonstrate that, when equipped with a set of simple rules combined with the input of sensors, robots can generate unique compositions independent from the human that starts the process. Such machines should not be seen as mere tools or devices for human predetermined aesthetic creations, as they are, at least partially, autonomous, and the result of their actions is unpredictable. Additionally, if randomness is an essential component of the process the resulting artwork cannot be described as random since recognizable patterns emerge from a fuzzy background.

Notes on a New Kind of Art
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Figure 1. A swarm of ant-like robots, 2003. © Leonel Moura.