

# V-Art

## from photography to engraved art

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### Premise



Developing a software is a moment of pure maths calculations, organization, and focus. Art can help those moments to be more personal and less stressful.



### 1. Introduction

Is there a relation between CAD/CAM systems for numeric control machines (NC) and Art?

It's possible to print images without ink?

Machine can create their own art starting from human art?

V-Art project starts from trying to give an answer to these questions.

### 2. The study

Starting as a developer for a big Italian CAD/CAM software house I ever been interested in mixing math systems and Art.

In November 2018 I start teaching "learn to code from Art" and in December 2019 I decide to develop a real software that can engrave every image with NC machines.

### 3. The V-Art project

The V-Art project start when I meet the company Filippi1971 s.r.l. and their special product VittEr®.

VittEr® is a panel composed by multiple layers of paper with differ colors.

Vitter® is used as a material to create furnishing elements in many sectors, so it is perfect for develop new design concept.

#### 4. Algorithm concept

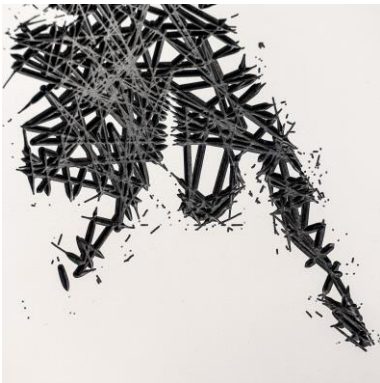


An image can be compared to a flat plane of a 2D CAD drawing. The X and Y coordinates are expressed by the pixel grid.

Then every pixel has an hidden 3D Z value represented by the color.

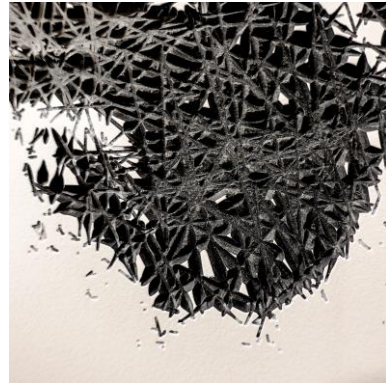
In fact, a color can be translated in a grey-scale value from 0 to 255 (RGB color space).

X, Y and Z value can now be used for literally speaking with a machine.



Every human understands commands if you use the correct words and language, for the machines we can use the same concept.

We can show to a machine first how to move, then how to work and at least how to create art.



I create many different algorithms (horizontal lines, vertical lines, curve, circles, rectangles, random...) that process every image in a completely new NC program.



VittEr ® it's not only composed by black or white papers, but we can use a lot of colors for add more complexity and possibility.

It's a new world for furniture decoration.

I start to explore this new world and I found a lot of interesting spot, I'm sure I will find more algorithms for create every time new generative Art from old art.



## 5. References

[1]V-Art – photoart project  
[www.instagram.com/vart\\_photoart](https://www.instagram.com/vart_photoart)

[2]VittEr® product from Filippi1971 s.r.l.  
[www.filippi1971.com/en/vitter/](http://www.filippi1971.com/en/vitter/)

[3]David di Michelangelo in Galleria dell'Accademia