

Adputer Inc.

Manifold:

Create a New Physical World
from Digital Algorithms.

White Book

April 2019

1. INTRODUCTION

- Adputer Inc. is a digital model designer and media solution provider.
- Founded on May 2008 in Canada.

2. BUSINESS

Geometric Model Generation for Advanced Manufacturing

Manifold Generator, Model Builder, 3D Printing, UV Printing

Computer Vision and Applications

AI, Machine Learning for semantic segmentation and classification

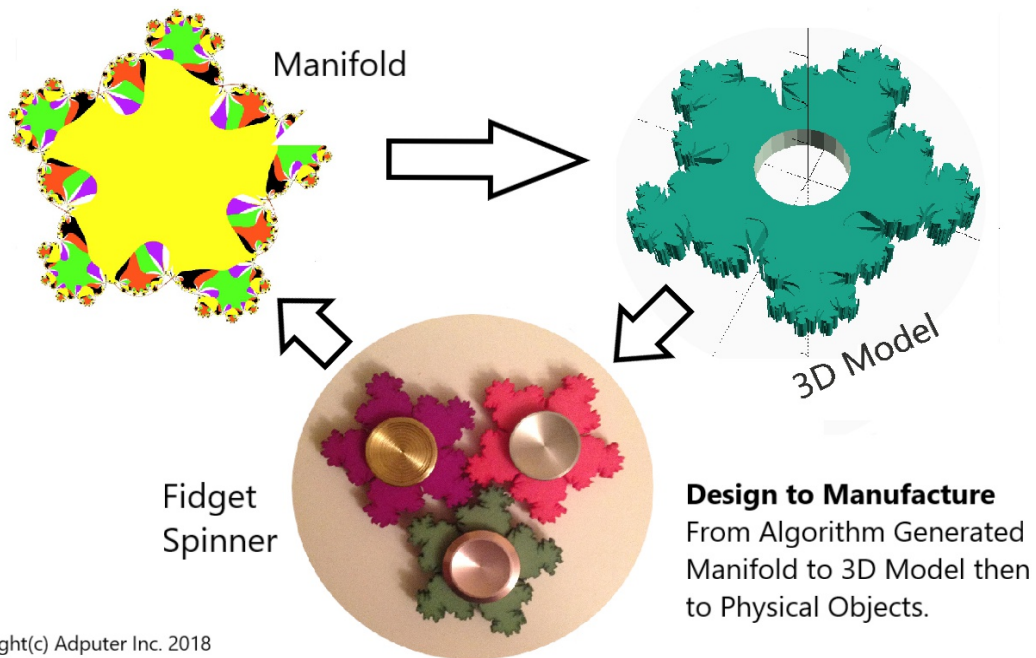
Digital Signage for Media Advertising

Adputer™ Player, Adputer™ Network, Adputer™ Center.

3. PERSPECTIVE

- **Industrial Design**

is the professional practice of designing products. Manifold is the geometric object generated by Math formula and algorithm. Machine Design is the feature of manifold generation which is unlike humans' design from sketch to final product.



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- **Advanced Manufacturing**

uses innovative technology to improve products or processes.

- **Products:** with high levels of design; Technologically complex products; Innovative products; Reliable, affordable, and available products; New more exciting products; Products that solve a variety of society's problems.
- **Processes:** Computer technologies; **Rapid** prototyping (**additive manufacturing**); High Precision technologies; **Automation**; New industrial platform technologies (**composite materials**); Ability to custom manufacture; Ability to manufacture high or low volume (scalability).
- **Management:** Quality **controls**; Supply chain integration; Advanced Planning and Scheduling.

- **Cutting Edge Technogogies**

UV printing is a new printing technology to apply ultra violet light to focus the ink dots. It can print for massive production and on almost any materials with full color in short time.

Adputer's 2D manifold generator is very suitable for uv printing ecosystem.

- **Industry 4.0**

Cyber Physical System by Germery

- **Advanced Manufacturing Supercluster**

Advance Manufacturing in Canada

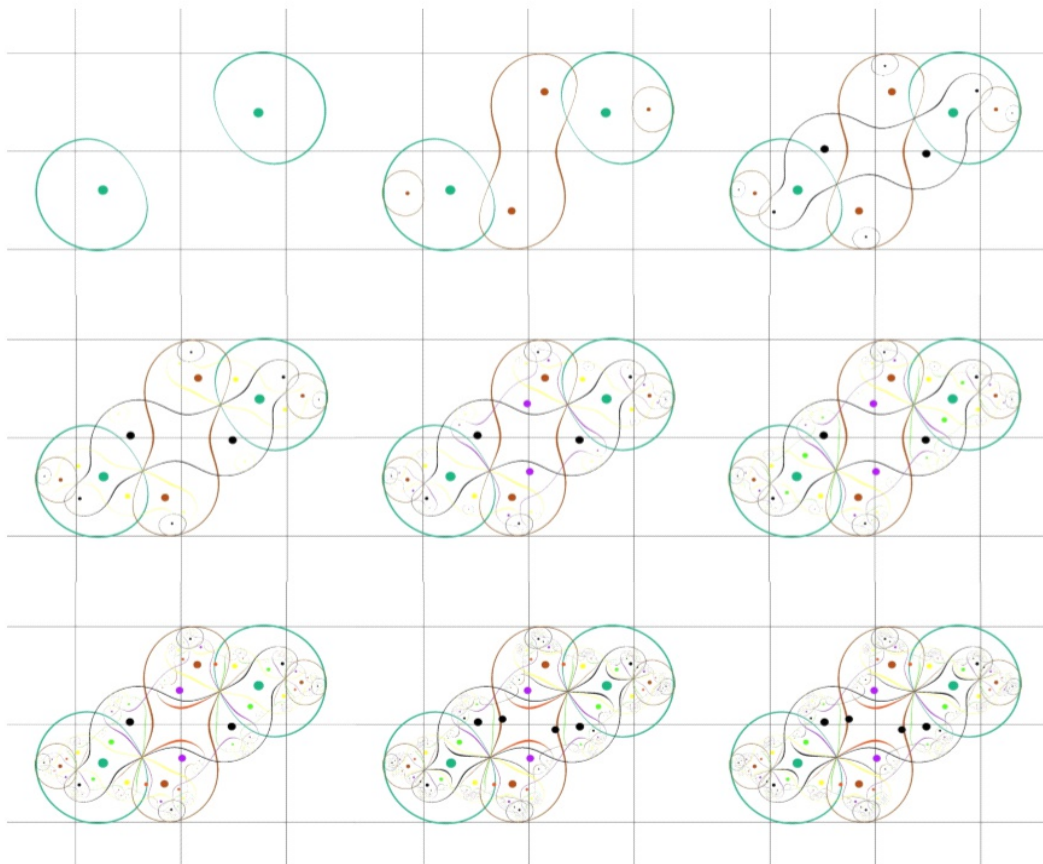
4. INNOVATION

MANIFOLD

3D Models Generated by Algorithms for Industrial Design and Advanced Manufacturing

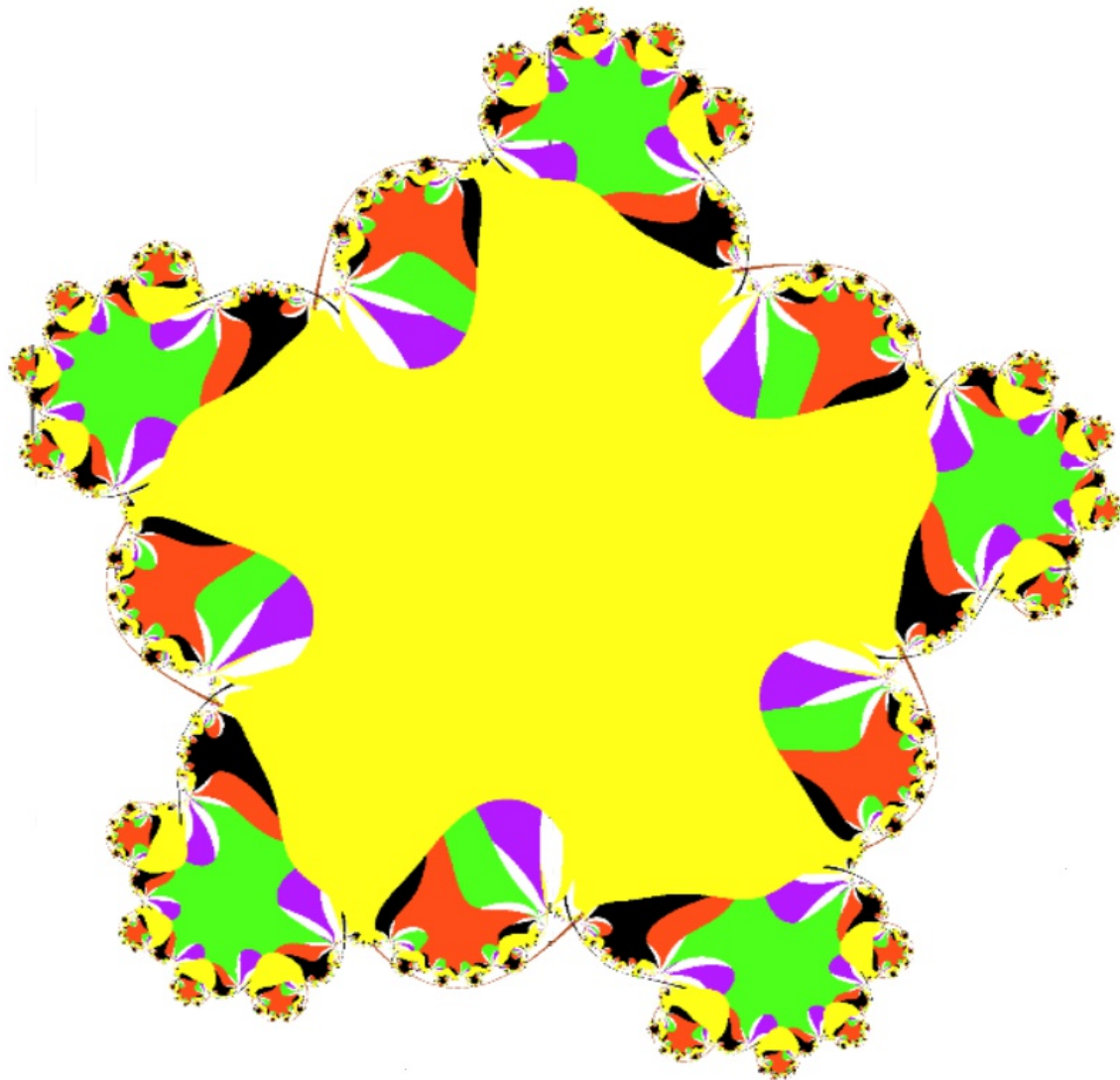
Theory

Math in algebraic geometry, dynamical system;
Physics in statistical physics; **Computer** in
algorithm, graphics, cloud, blockchain;
Manufacture in 3D & UV printing, SLS, waxing,
casting



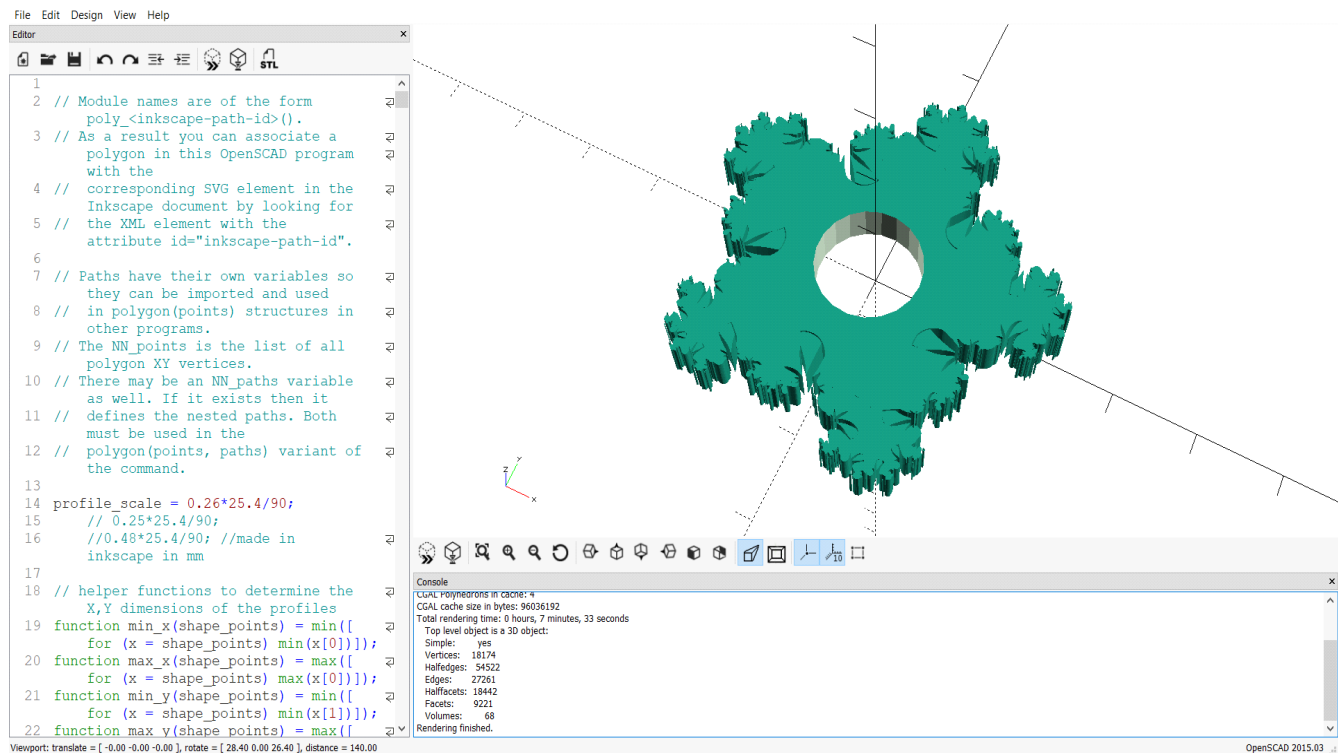
• Process

A formula and an algorithm is designed and implemented by a programming language, executed in a software (we invented) to generate a manifold.



We can use this 2D manifold as a texture or a component for plane design. Later we can apply uv printing to print the manifold on surface with almost any materials such as glass, metal, and platics.

Several software are applied to modify and compose 3D model as design required. Then 3D model is rendered for 3D printing preview. The 3D model can be used for objects in Virtual Reality.



The finished 3D model is send to manufacture for 3D printing, CNC, casting. Completed 3D objects are listed on the online store for sale.



• Approach

Algorithm, Model, Recepte

The algorithm generated 3D model is like a recepte for cooking food.

IP, Registration, Security, Blockchain

Each 3D model is an IP asset. By using blockchain technology we can register and protect IPs in digital security method.



Software Toolkits Upgrade

We developed an innovative software to make this possible. We are going to continue upgrade and make a new version of the software.

Streamline Design and Production

We need to integrate several software to streamline the design procedure. To make an automation from designing, making, verification, to final sales, the new innovation of processing is required.

Mass Production Technologies

To reduce cost and satisfy large volume demands, methods such as mold design, 3D printing, uv printing waxing, casting may need approach.

Various Materials

Plastic, metal, and other materials need to try and see to find best products and effects.

5. PRODUCTS

Fidget Spinner – various models, shapes, materials



6. MARKET

- **Category**

Toys - fidget spinner, VR objects

Jewelry - ring, gold, silver, copper, wax

Arts – painting, poster,

Utility - eye glass frame,

- **Outside Canada**

United States – largest market

Europe – developed market

Middle East – possible large market


Asia – large market

South America – developing market

Africa – potential market

7. PARTNERS

- **Etsy** - famous professional store, professional customers, headquarter in US



Amulet Spinner

US\$16.03 Ask a question

Primary color
Select a color ▾

Quantity
1 ▾

Add to cart

Overview

- Handmade item
- Materials: Nylon body, Stainless steel caps, Brass caps, Aluminum alloy caps, Metal gift box
- Favorited by: **2 people**
- Gift message available

🏪 This shop accepts Etsy gift cards

Shipping

Made just for you. Ready to ship in 1-2 weeks.

From Canada
US\$5.61 shipping to [Canada](#). L3S 2N4

🍷 Favorite ☰ Add to ▾

Description

An amulet spinner with five poles and self-similar shapes in fine details. special features: