

# Adputer Inc.

## Manifold:

Create a New Physical World  
from Digital Algorithms.

White Book

**April 2018**

# 1. INTRODUCTION

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

# 2. BUSINESS

**3D Model Generation for Additive Manufacturing**  
Manifold Generator, Model Builder, 3D Printing Viewer

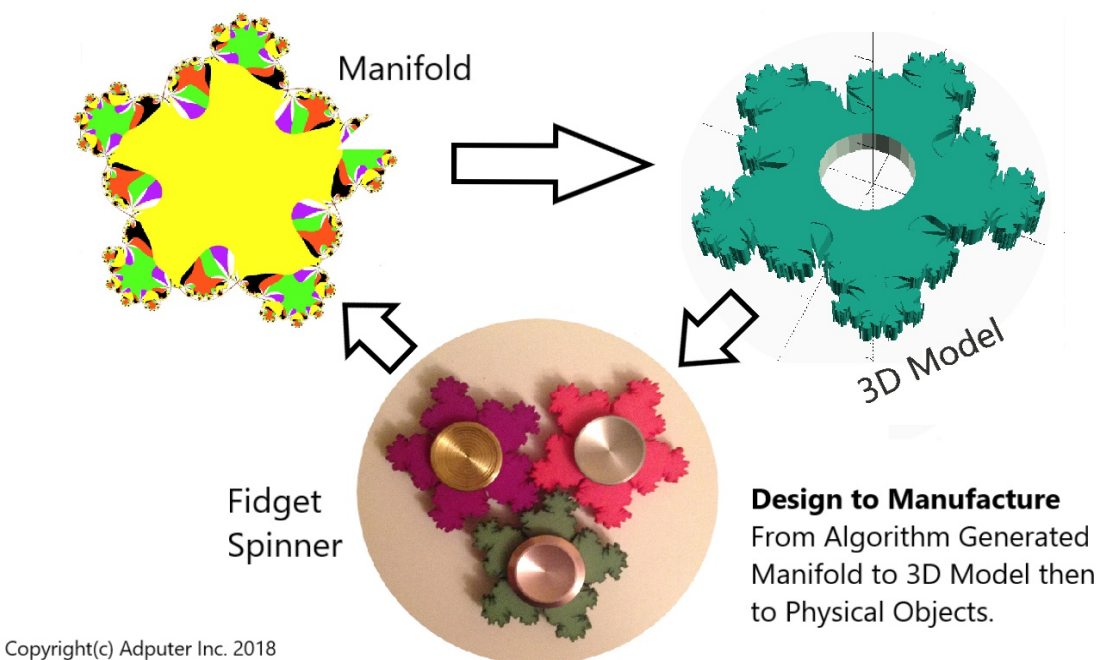
**Computer Vision Camera and Applications**  
Night Vision Camera

**Digital Signage for Media Advertising**  
Adputer™ Player, Adputer™ Display, 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.



- **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.

- **Industry 4.0**

Cyber Physical System by Germany

- **Made in China 2025**

IoT by China

- **Advanced Manufacturing Supercluster**

Advanced Manufacturing in Canada

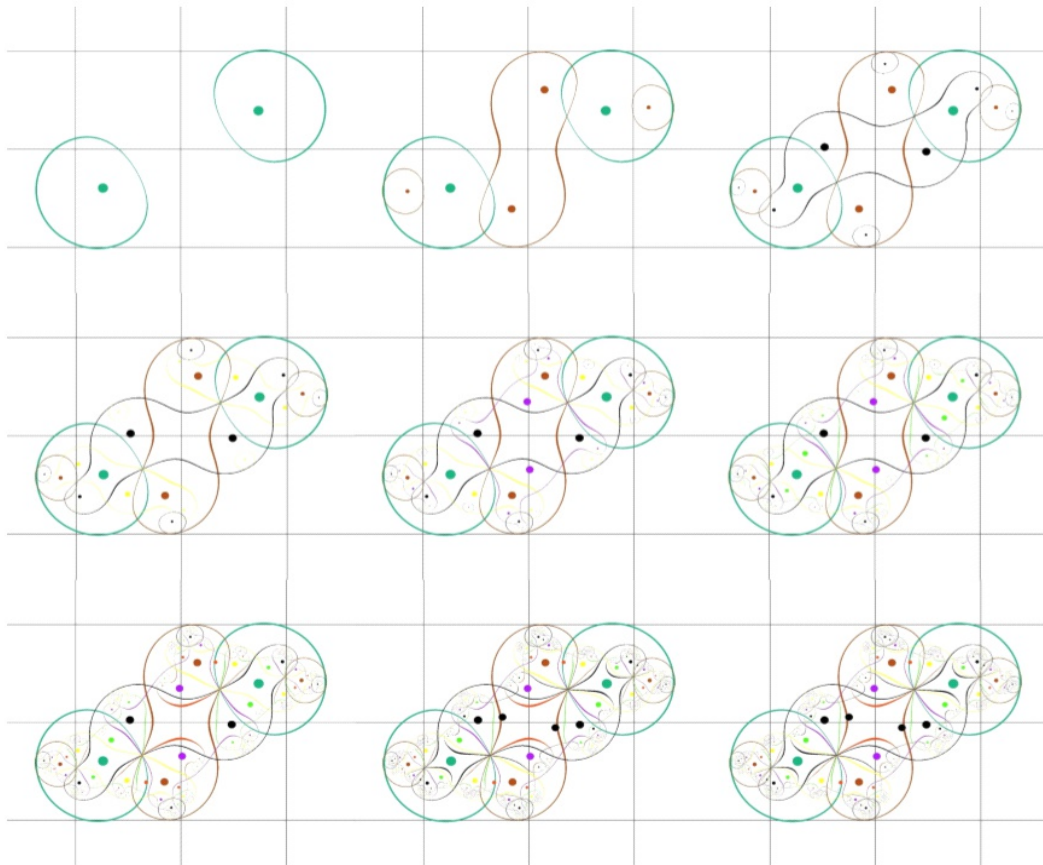
## 4. INNOVATION

**MANIFOLD**

**3D Models Generated  
by Algorithms  
for  
Industrial Design  
and  
Additive Manufacturing**

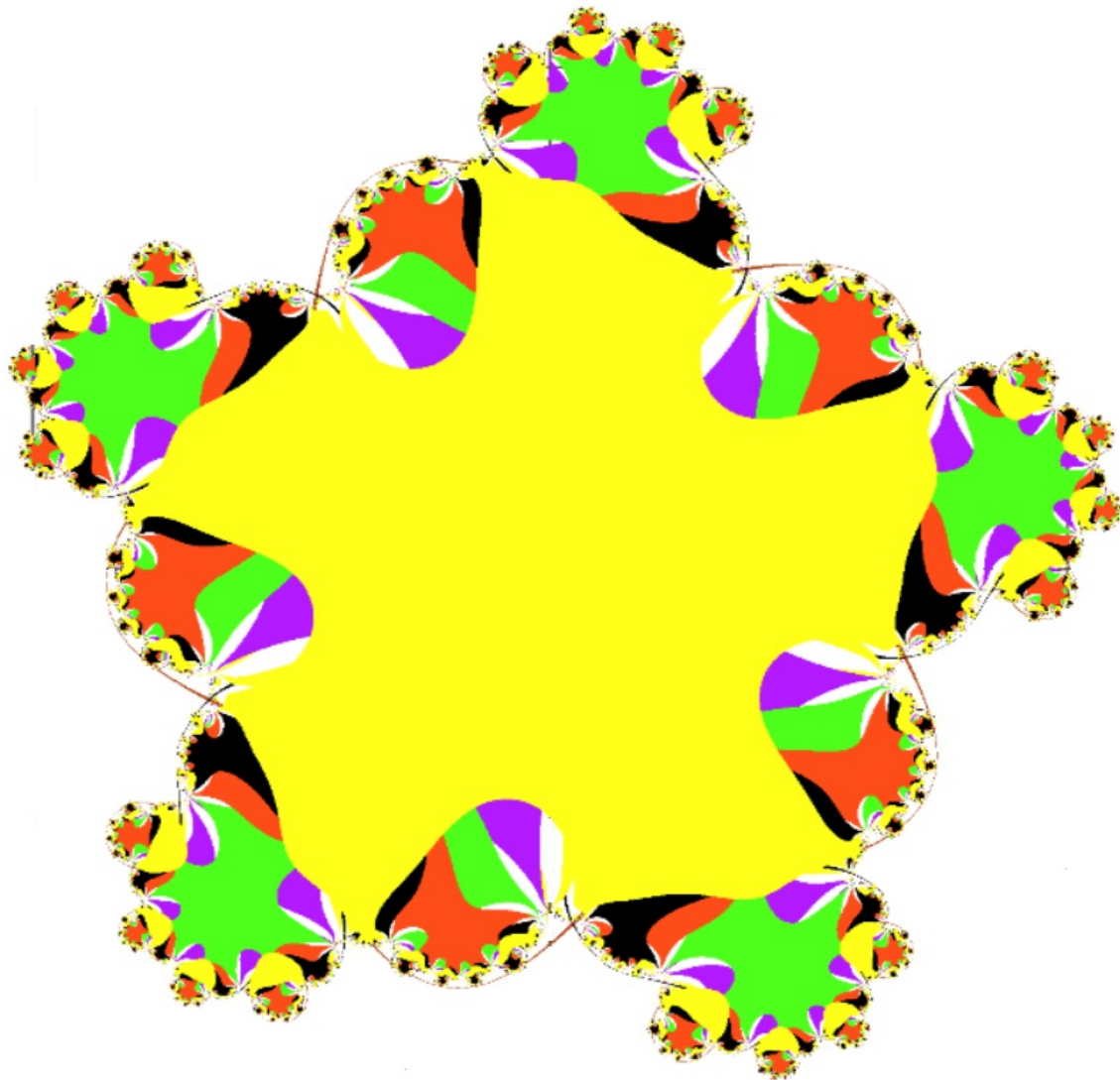
# Theory

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

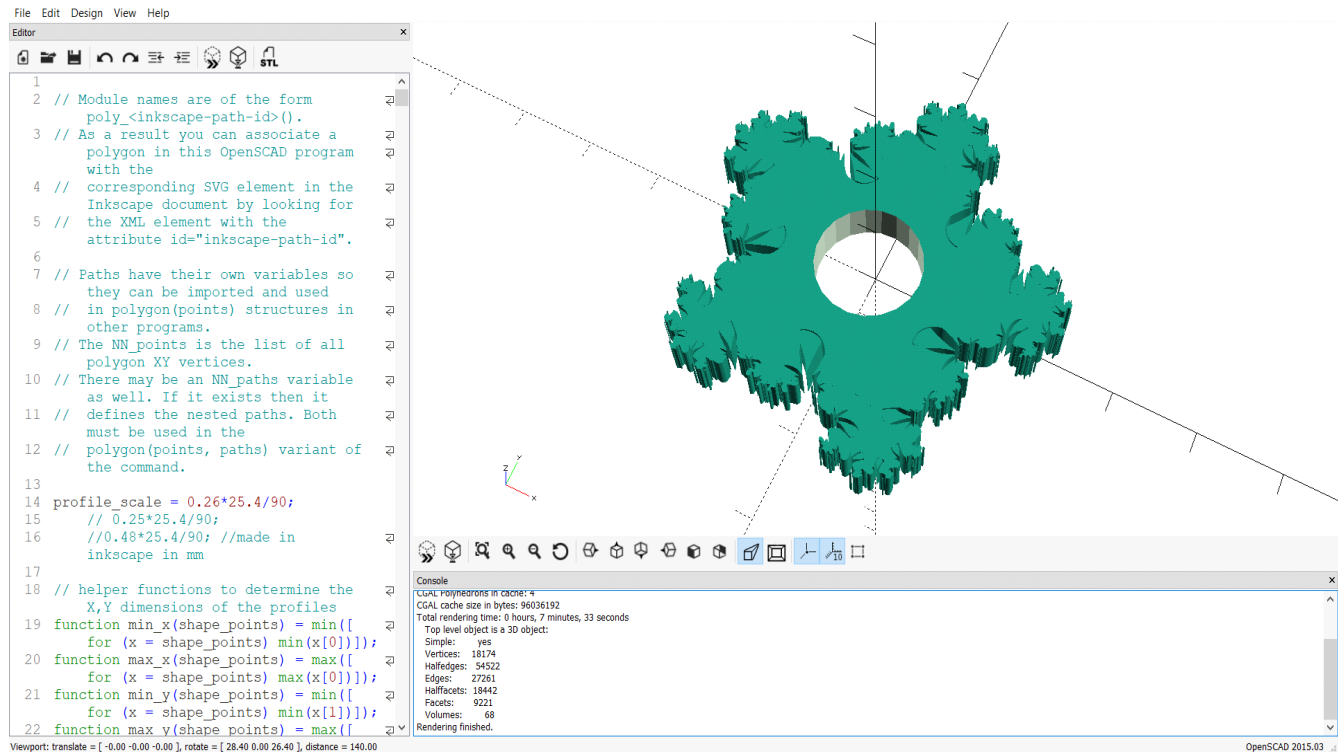


## . Process

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



Several software are applied to modify and compose 3D model as design required. Then 3D model is rendered for 3D printing preview.





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, Receipt**

The algorithm generated 3D model is like a receipt 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, 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,

**Jewelry** - ring, gold, silver, copper, wax

**Arts** - painting

**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


Quantity

[Add to cart](#)

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**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

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**Shipping**

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

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

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**Description**

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