



**Make****omnia**  
萬象創造

3D Printing for Everyone

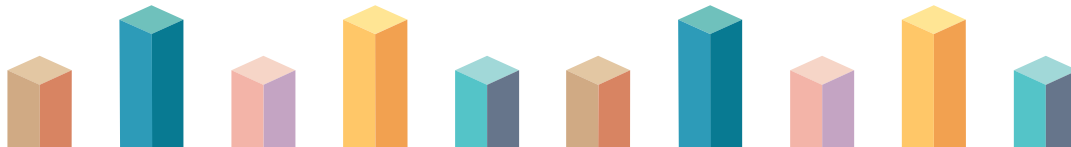


## Our Background

Makegearomnia



- We focus on the development of 3D printers and STEM education.
- We develop our own brand 'Mago' which is a mini 3D printer.
- With cooperation with STEM education, we bring 3D printers and 3D modelling into schools and homes of students nowadays.



# About MakeOmnia



Founder was a STEM teacher in local school, over 10+ years teaching experience

TinyBoy Open source 3D Printer Team formed on 2011, design and promoting open source 3D printer in HK

Quitting the job of teacher in 2014, start promoting 3D printing and STEM education



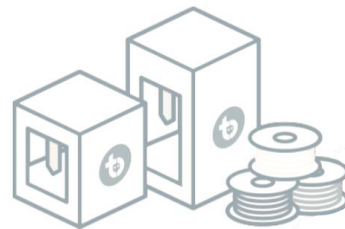
Project granted by HK Cyberport in Nov 2014 and became their incubatee since Aug 2015



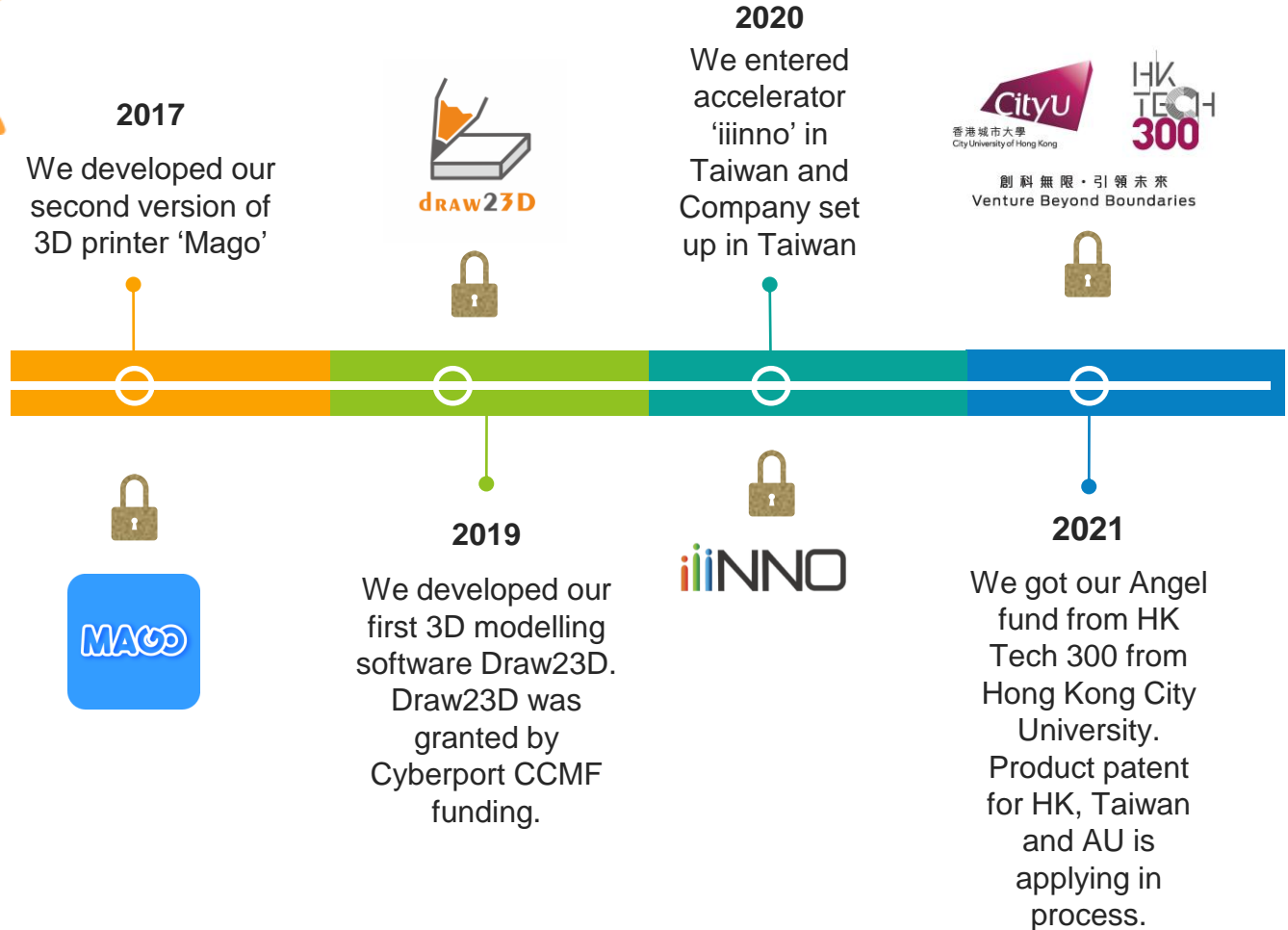
HK Cyberport  
Incubatee since 2015

Focus on  
end user 3D printer  
development

Original team of  
TinyBoy 3D printer  
project at 2011

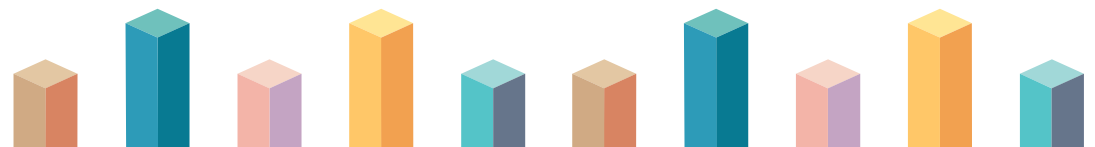
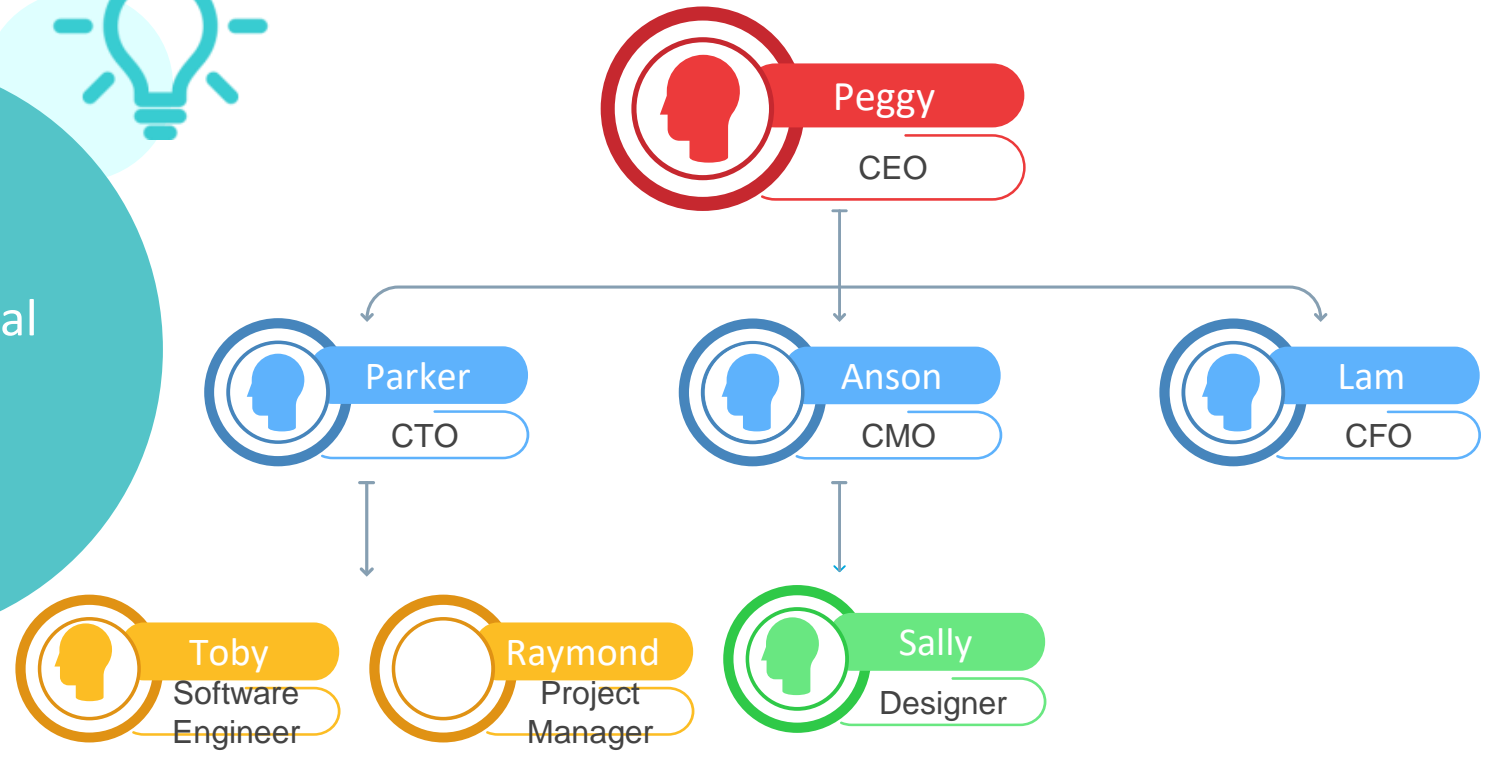


# After Incubation?





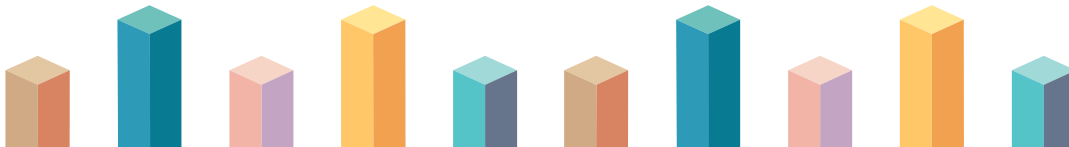
# Organisational Structure





## 3D Printing is impactable

- 'Making Manufacturing' process become easier
- Improved the 'Creative' process
- Lower the cost of personalisation product





# Quick Flow of 3D Printing



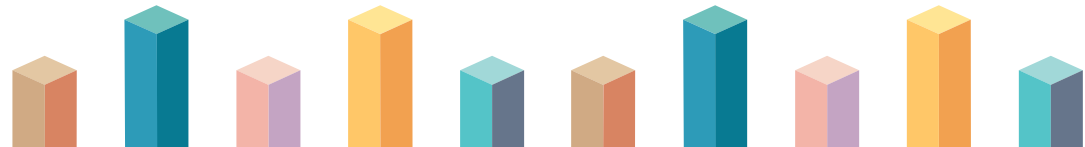
Come up an idea



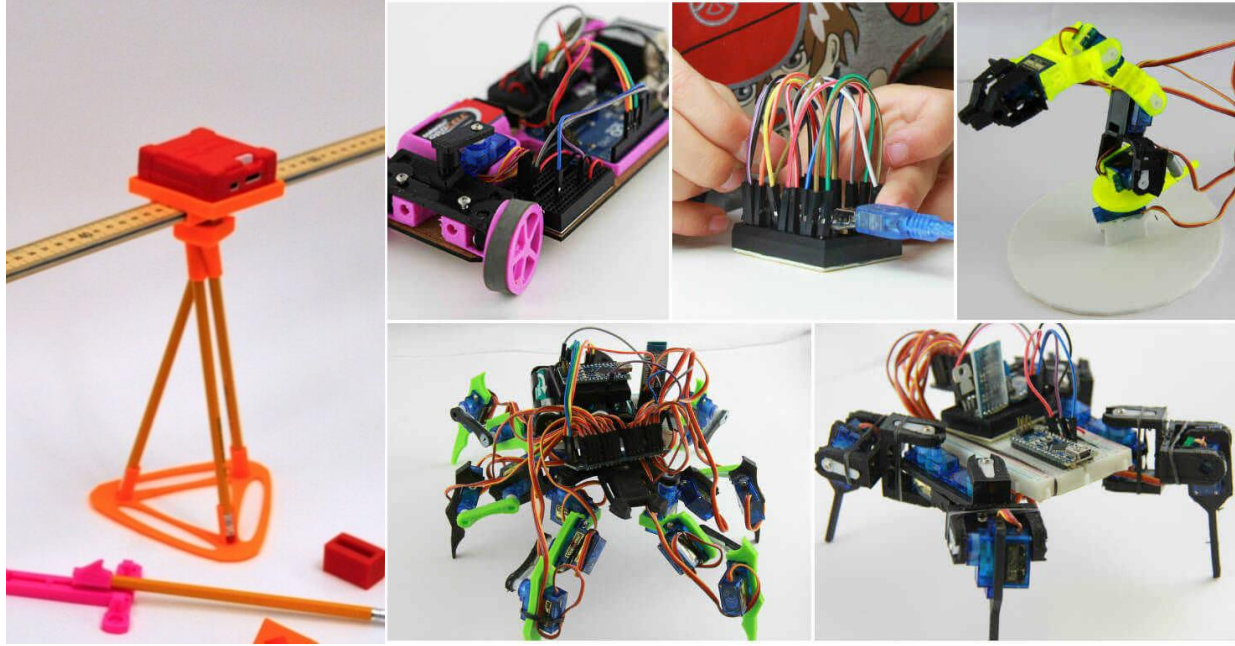
Draw out the design



Create it with 3D Printing

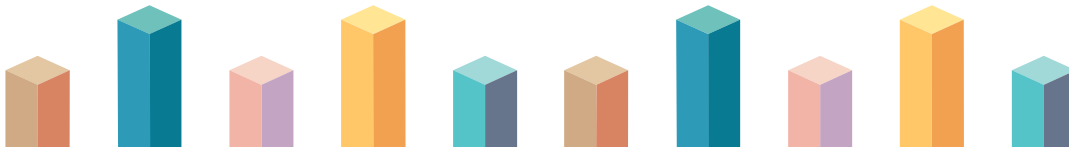


# 3D printing as Edu-tech



Example for 3D Print in STEM learning

- Learning how to build robot with 3D printing skill
- Combine coding and building with 3D print
- Embed 3D printing in Math or Sciences aspect



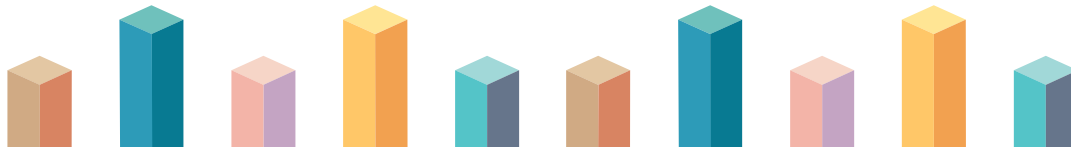




Not much  
people use  
3D printers

**BUT WHY?**

- Too complicated to use
- Not enough space to put many 3D printers
- Not enough 3D printer for every student



## No Space for 3D printer storage

- Most 3D printer in the market are HUGE.

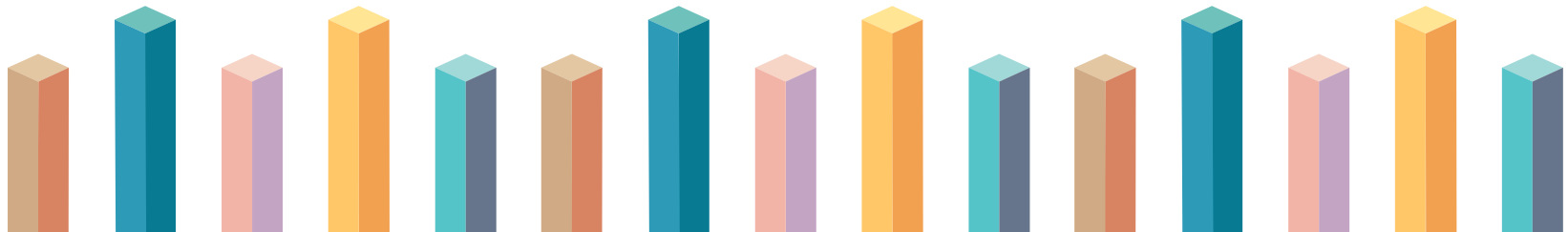
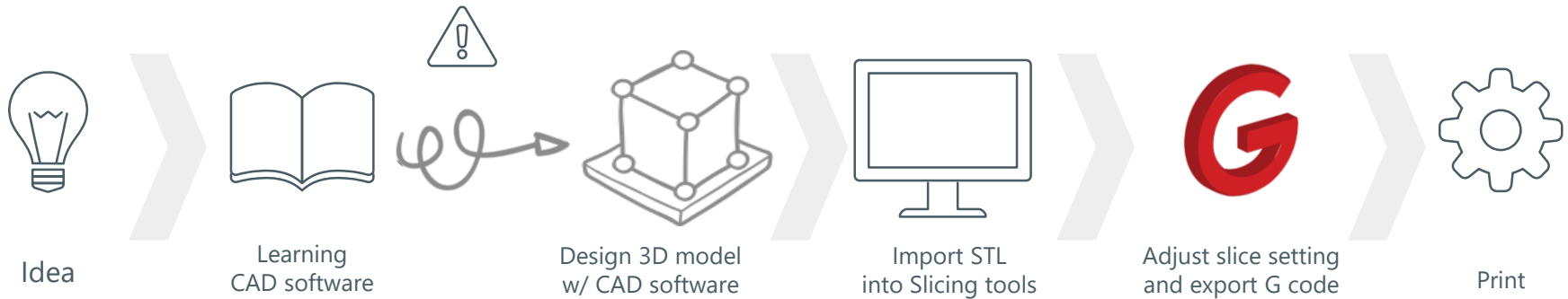


## Not enough 3D printer for each student

- 3D printing education need Teacher, Material, Machine, Software
- The cost are TOO HIGH

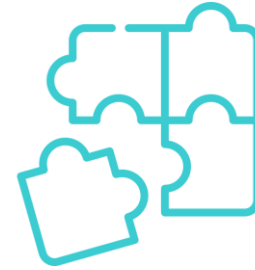


# Why People get MESS with 3D Printing?





## Our Solution



Mago mini 3D Printer



Mobile App : Draw23D




Everyone is  
A Designer



**dDRAW23D**

Create 3D model  
just drawing on  
Paper




# Why Draw23D?

*Drawing with a pen is a basic skill for everyone*

*Our target is to provide the most easiest method*

*to create simple 3D models by every users and*

**UNLEASH EVERYONE'S CREATIVITY**

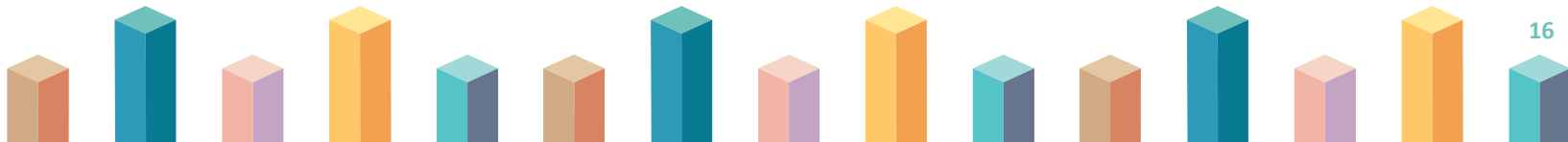


What you need  
to do is  
**Drawing !**



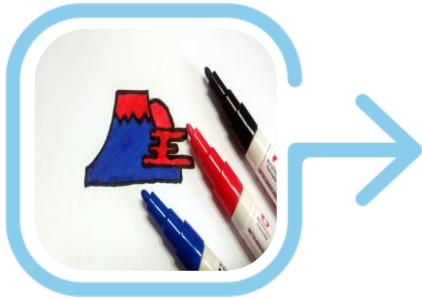
Users can finish their  
design in  
just few minutes

and print directly to  
**ENJOY!**





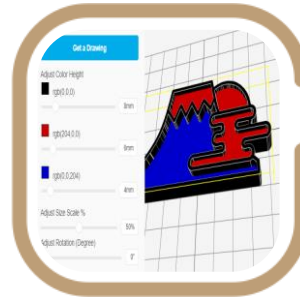
# Our Process :



Drawing on the paper  
with color pens



Taking photos with  
Draw23D

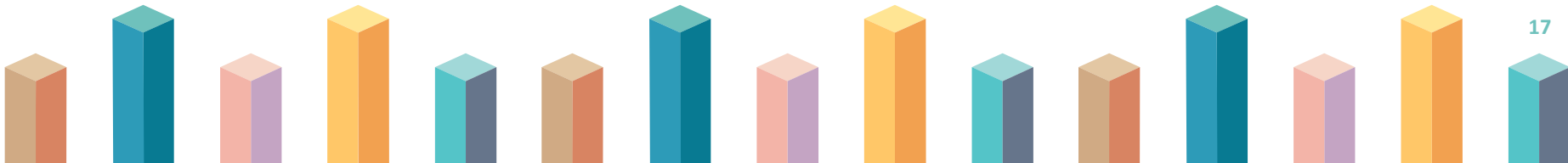


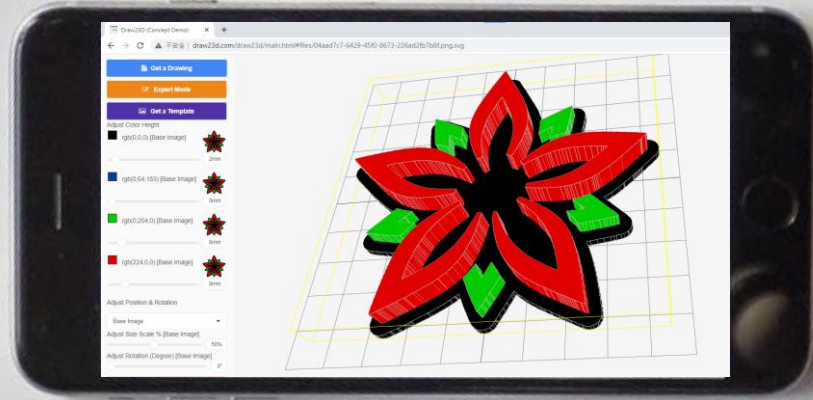
Adjust the model size



Print and Enjoy!

[Play Demo Video](#)





## How to use Draw23D :

1. Adjust the size base on different drawing color
2. Send to Print directly



We trim down the workflow

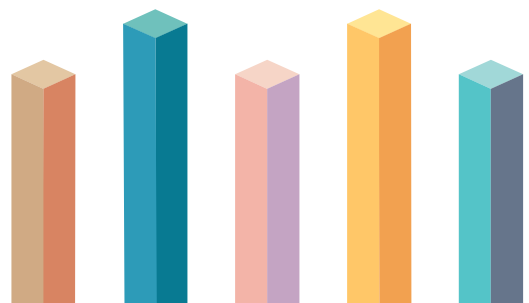
**EASY !**



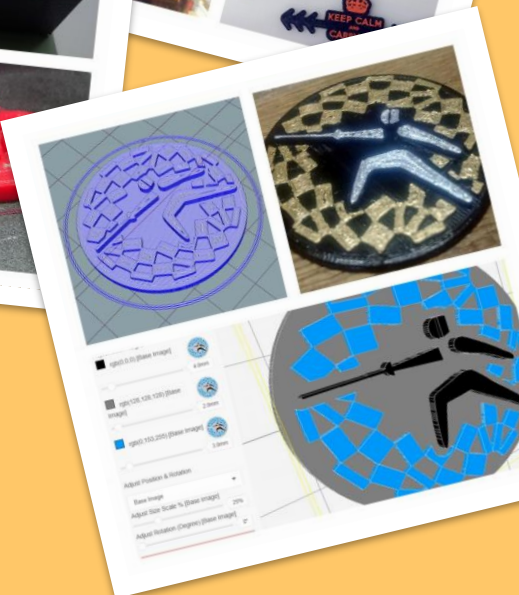
**NO !!!**



**Enjoy Creation with Draw23D**

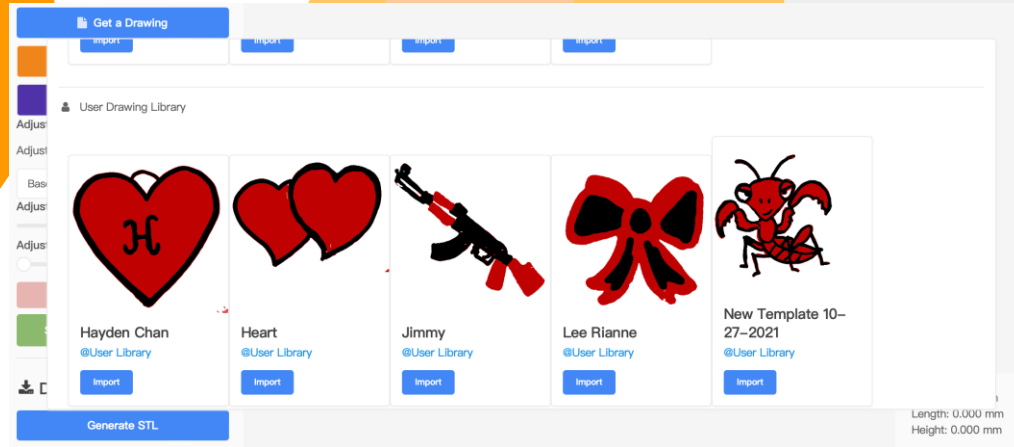


What  
user can  
Create?



# User Gallery !

Our gallery can let users create and share their own design.





What next  
when people finish design?

Print - it - out !!!

But... we need a 3D printer

Is there any 3D printers fit for home or desk?  
Is it easy and simple for everyone?





Everyone is  
A Designer

# Mago Mini Printer

Print  
REAL objects from  
paper drawing







## *“One 3D printer per child”*

*Every student has their own 3D printers for better STEM learning*

*Arose students' interest on technology / design industry*

*Be creator, be prepared for the Industrial 4.0*





## Maximize print envelop

In the ultra compact body



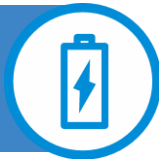
## Compact and Portable

Lightweight (~1.2kg)  
easy to carry to everywhere



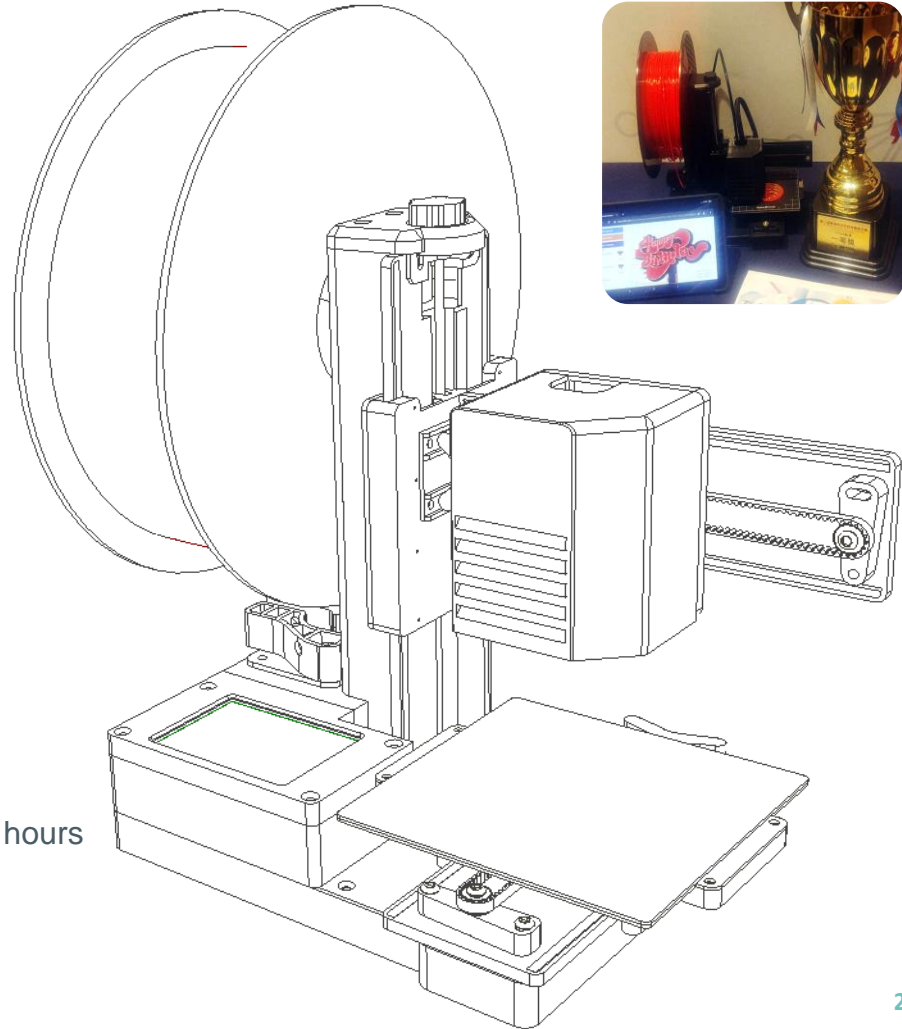
## Detail Resolution

Layer thickness down to 0.05 mm



## Portable Printing

Continuous printing up to 3 hours  
(w/ optional Power Bank)





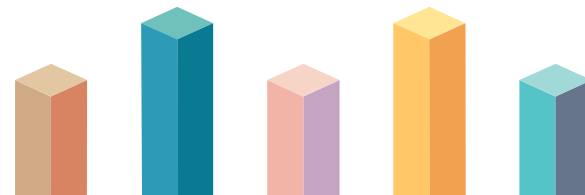
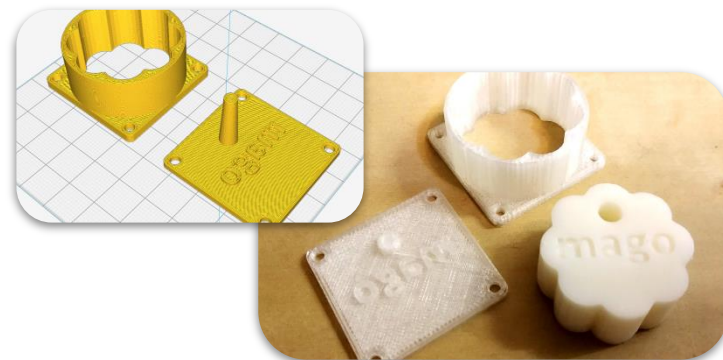
## Bundle Cookbooks

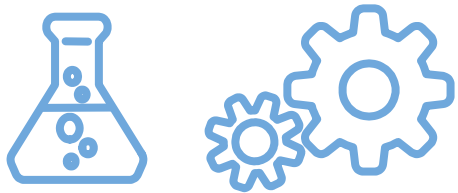
What user can make with Mago ?

No ideas ? Don't worry !

We will bundle the printers with cookbooks.

Users can get start easily.

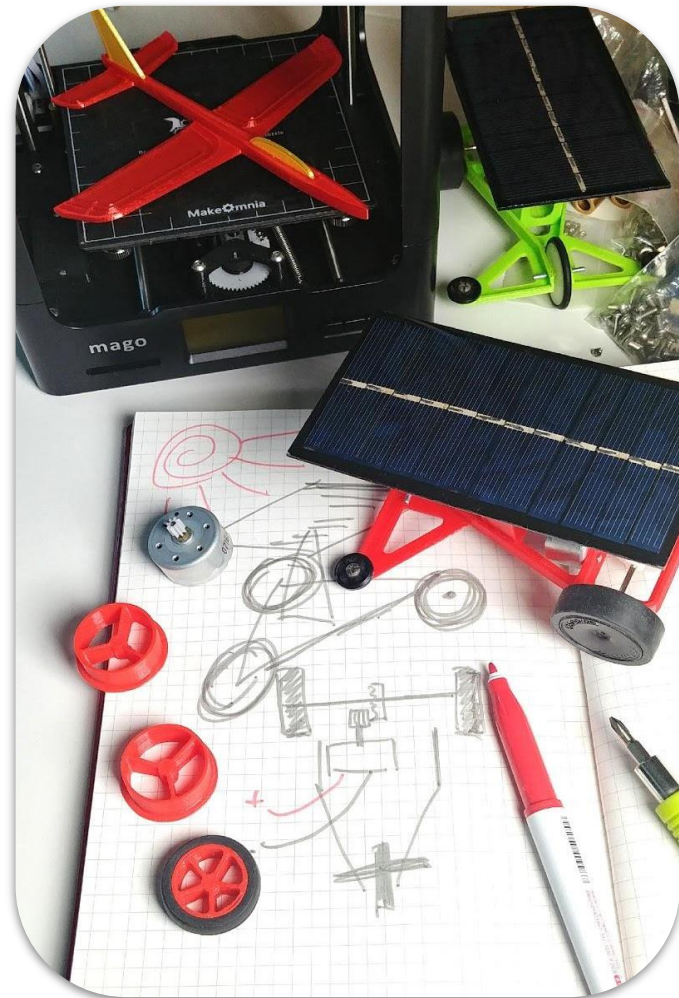
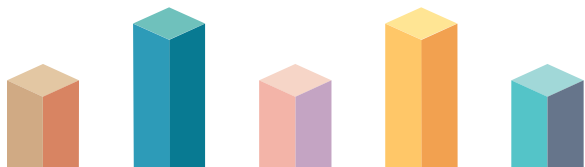




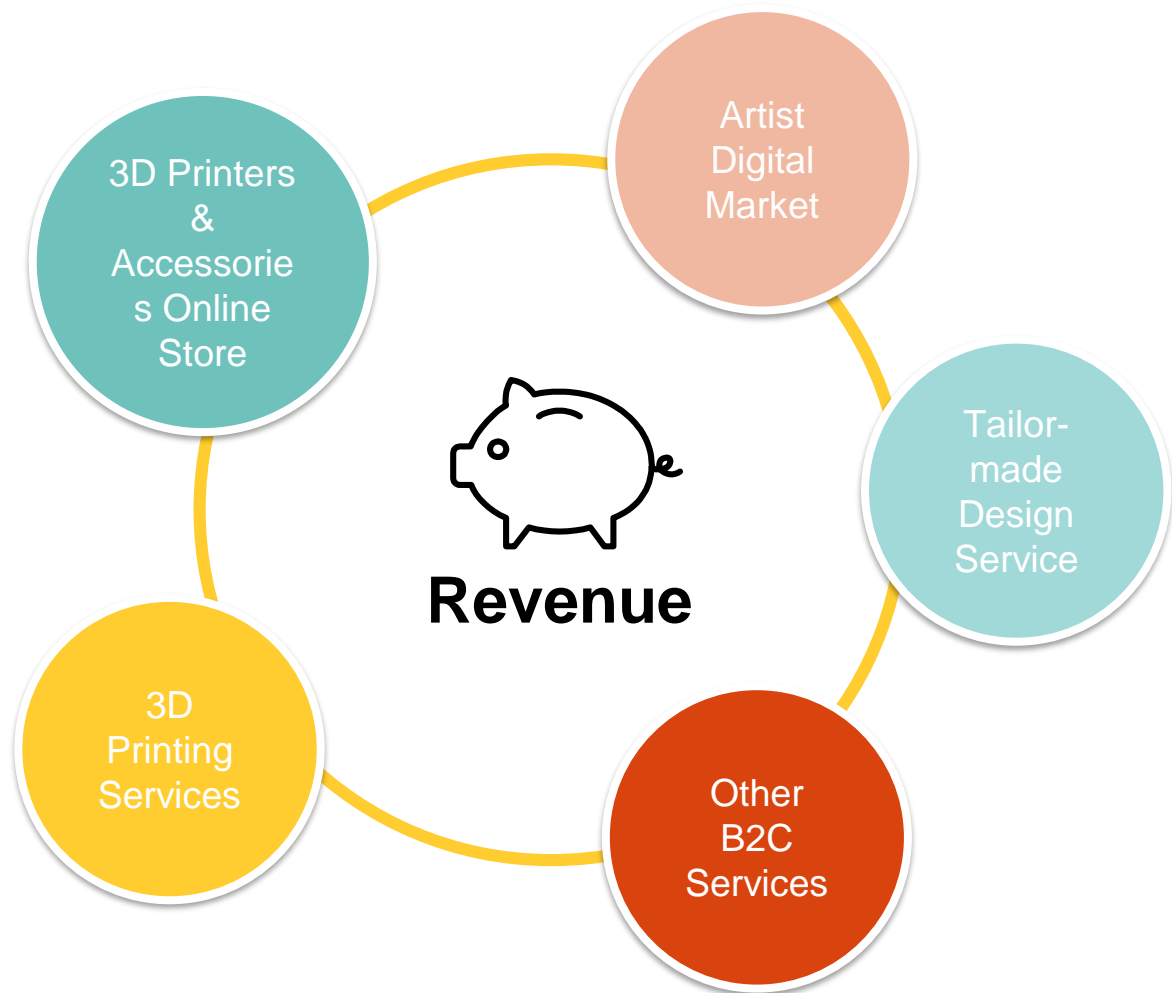
# STEM Package

For teachers / educators,  
we work with some teachers from frontlines  
to develop a series STEM learning materials

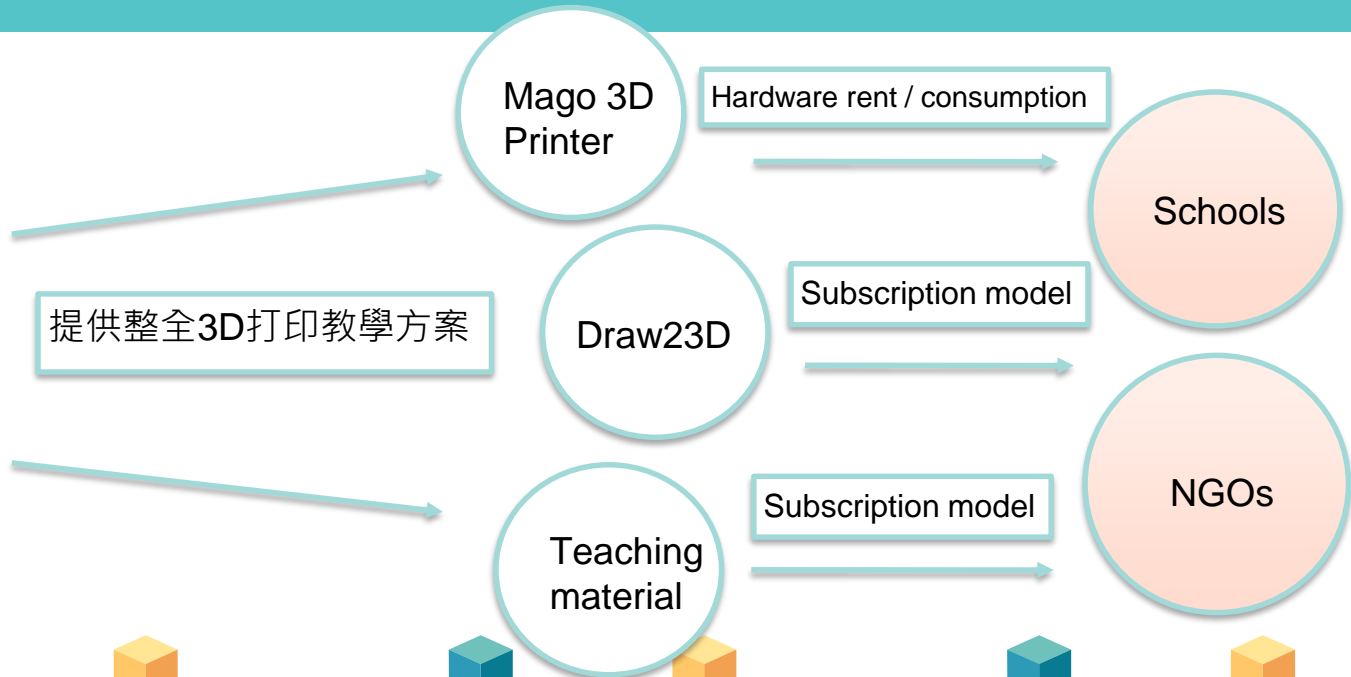
Ready 3D blocks library,  
teachers and students can print-n-build  
robots and IOT prototypes easily



# Business Model

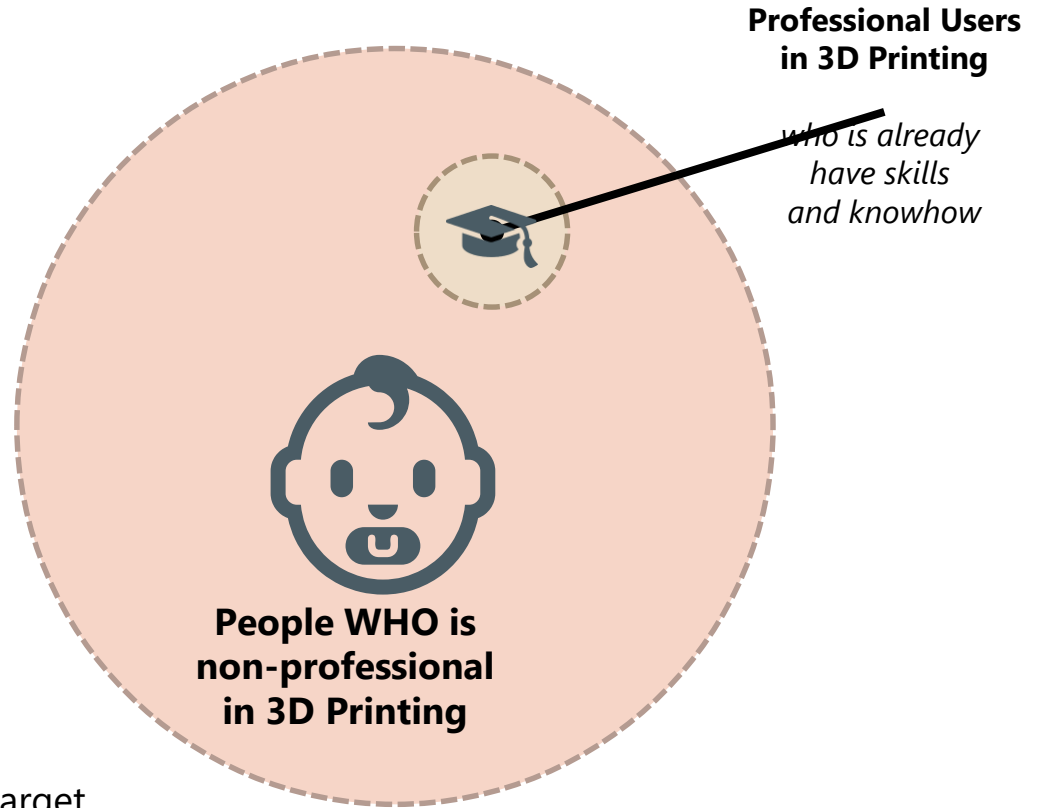


# Business Model 持續模式



# Target Markets

We aim at non-professional user market  
ANYONE without 3D modelling skill is our target



# Case study- Workshop



More than 400 students participate





# Case study- School

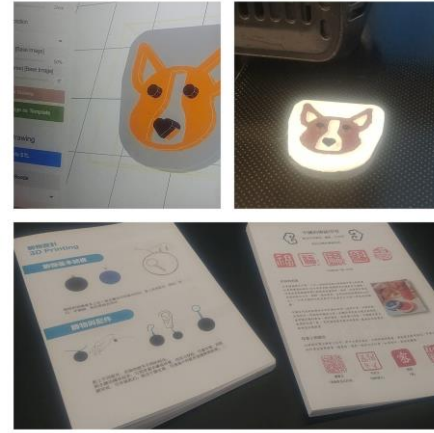


3D Print Farm established in STEM lab in Tsuen Wan Government School.



We provide our teaching material with 3D modelling software and printers.

Case study-  
Special Education



設計節物的圖案  
可以先填紅色，再填黑色

畫好就可以 upload 上 [www.draw23d.com](http://www.draw23d.com)

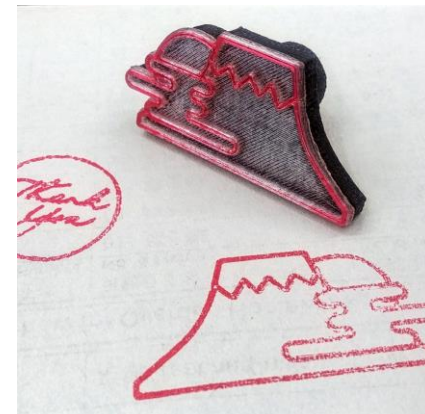
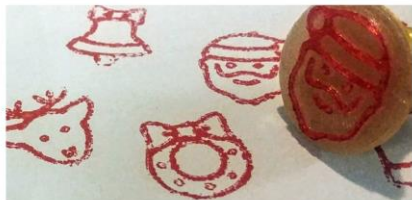
- 1 繪畫設計
- 2 拍攝
- 3 [www.draw23d.com](http://www.draw23d.com)
- 4 上傳設計
- 5 設定厚度
- 6 打印成品



3D printing x Visual art course (Christmas theme)

3D printing x English Calligraphy course HKSYP&IA Chan Nam Chong Memorial College

# Case study- Visual Art Classes





Revenue

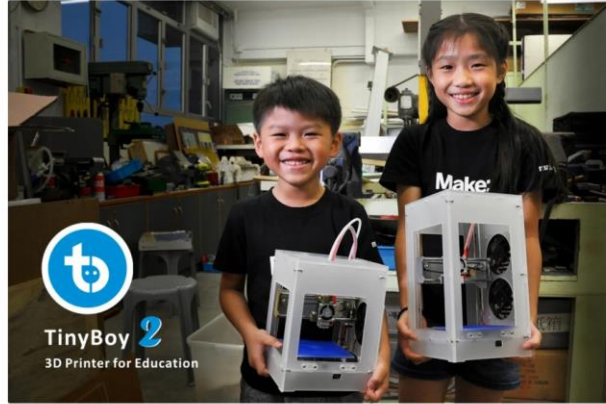
40+

Local schools using our 3D Printers & subscript Draw23D

120+

Revenue from 3D Printing & Train-the-trainer workshops

Avg. HKD 200k



CLOSED

### TinyBoy 2 - 3D Printer for Education

To give every child a chance to become makers.

Wan Leung Wong

1 Campaign | Hong Kong, Hong Kong

\$286,115 HKD by 130 backers

\$241,266 HKD by 112 backers on Nov 19, 2015

FOLLOW



# Team Awards



Bronze Award Best Innovation  
(Innovative Technology)  
- Hong Kong ICT Awards 2015



First prize of Best Innovation Teaching tools,  
- 29th China Adolescents Science & Technology  
Innovation Contest 2014



First prize of Best Innovation Teaching tools,  
- Hong Kong Youth Science & Technology  
Innovation Competition 2014



MAKER of MERIT  
- Maker Faire Hong Kong 2017  
- Maker Faire Hong Kong 2018



2nd runner-up  
- IngDan iFuture Competition 2016



# Award Winning





Partners

數碼港  
*Cyberport*

**Maker Faire**  
**Hong Kong**



**IngDan 硬蛋**  
HATCH THE INTERNET OF THINGS

**WORLD  
DIDAC**  
**Asia**

# Clients



HONG KONG  
DESIGN  
INSTITUTE  
香港知專  
設計學院



香港大學電子學習發展實驗室  
e-Learning Development Laboratory  
The University of Hong Kong



olpc BaseCamp  
@ Malacca



皇仁書院  
QUEEN'S COLLEGE



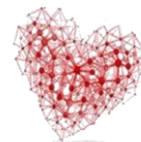
Diocesan Girls' School  
拔萃女書院



Faculty of **Education**  
The University of Hong Kong



Hong Kong Productivity Council  
香港生產力促進局



澳門生產力暨科技轉移中心  
CENTRO DE PRODUTIVIDADE E TRANSFERÊNCIA DE TECNOLOGIA DE MACAU  
MACAU PRODUCTIVITY AND TECHNOLOGY TRANSFER CENTER

香港愛心連線  
The Love Link of Hong Kong



# 九十後憑3D打印機 申台創業 Visa

創科專員計劃下高自創投資中... 目前標準香港十多間中小學採用... 產品更部署在連鎖電腦店上架... 以及到馬來西亞亞羅士打展銷。

## 業務擴展至馬來西亞

公司發展不俗，但業務純早有移民... 曾回香港生活壓力極大，「只有生... 有生活」，加上政治問題難解，... 打算結婚後生一小朋友... 目前香港未必是地育子女的... 反觀台灣生活壓力比香港... 她到當地參加創科展覽時，亦

望到到台灣的体系和小朋友對科技充滿... 好奇，對當地的學習氣氛印象良好，不... 似香港家長，只關心科技產品的價錢，以... 及能否幫助小朋友考試，入讀心儀學校，... 加上該地文化與香港相近，適合港人舉... 家移民，「於是選擇移民美國家，父母亦... 非常支持。」

為了實現移民台灣的目的，黃碧瑋... 利用MakeOmnia申請加入當地的創業... 加速器計劃，最近終於成功入籍，為... 在2、5月期間，正式取得創業家簽證... 只要她就能取得簽證起計5年之內，每年

在台灣逗留至少半年，便可以申請入... 籍，「所以最遲今年9月一定要離港」，... 將會與黃碧瑋一同赴台灣的，包括... 其友Anson及其父親、黃碧瑋的婆婆，



▲黃碧瑋現僑居在台灣取得創業家簽證，5年後會申請入籍。 (黃碧瑋攝)

## 衝破難關見新突破

投身自己不熟悉的領域，猶如「摸石頭過河」，過程必定會遇到高低... 起伏。Peggy憶述，負責研究開發的中學老師因一場大病，入住深切... 治療部長達半年。「公司瞬間停頓了，既沒有新研發，又沒有收入，... 令我懷疑一直以來做的事正確嗎？」她亦曾對自己的定位感到迷惘，... 「我並不精通研究開發及繪圖，究竟我可以為公司做些甚麼呢？」

Anson點頭表同意，當打印機即將進入大量生產前，才發現機辦有問... 題，亦不知道如何解決，「深刻信心盡失。」處於未知何時才能突... 破的轉捩點，如何調整心態面對才是關鍵。她反問自己是否甘心就此... 放棄？「我們前期投放了這麼多心思，只差一步便可將產品推出市... 場，又怎能不堅持下去呢？」於是她抱著「衝破難關便有新突破」的... 想法繼續走下去。

Peggy感激兩名夥伴讓她更了解自己，並學會以新眼光看事情，「原... 來有時自己的視野會比較狹窄，解決事情及達到最終目標其實不止一... 種方法。」二人認為最重要是先讓自己成長，「故我們不時會交換想... 法，並反思及討論如何協調大家的處事方式。」



●Peggy經營公司這六年來，獲得許多意想不到的生... 經驗，教她學會不再為自己的能力設限。

# Media Exposure

財星學堂

ON AIR

創業教室 | MakeOmnia

進修生活 Lifelong Learning Magazine

209 MAR 2021

Peggy MakeOmnia 首席營運總監

研發 3D 打印機 九十後闖台拓市場

EDU 進修生活 PLUS

EDU 進修生活 PLUS

研發3D打印機 九十後闖台拓市場

Anson MakeOmnia 市場總監

Peggy MakeOmnia 首席營運總監

「孩子擁有一人一機」是本地科企MakeOmnia的願景，其首席營運總監Peggy期望透過自家研發的3D打印機，令學生更投入及享受STEM學習，同時提升他們對科技的興趣。現年二十五歲的小妮子，經營公司這六年來，獲得許多意想不到的生... 經驗，除了積極在港台兩地參與，更成功入圍台灣創業加速器計劃，教她學會不再為自己的... 能力設限。她對業務未來發展已有清晰藍圖—專注做好本地教育市場、開拓家用市場，更積極將業務拓展海外，... 實設計「在地化」文案，將3D打印技術普及化。

EDU 進修生活 PLUS





「開源技術」平市價八成 「陳南昌」分享創意科技

## 中學自製「迷你版」3D 打印機

### 「開源技術」平市價八成 「陳南昌」分享創意科技

香港文匯報訊（記者 廖伊多）3D 打印（3D Printing）被稱為「第三次工業革命」，本港學界正積極迎合相關趨勢，於中學展開技術教育技術創新高。香港教育委員會會長陳維德紀念中學副校長陳南昌表示，該校今年將再製20部迷你3D打印機，讓師生多了解如何自行開發及設計立體模型，以配合內地教育發展，又會邀請打印機師到場上堂與其學生分享。因此是屆該校學生創製和測試新機，未來創製科技課程的好機會。

近30台打印機將運到港，每部約重130磅，最高成本亦在4000元至50000元不等。陳南昌表示，該校今年將再製20部迷你3D打印機，每部約重130磅，最高成本亦在4000元至50000元不等。陳南昌表示，該校今年將再製20部迷你3D打印機，每部約重130磅，最高成本亦在4000元至50000元不等。

陳南昌表示，該校今年將再製20部迷你3D打印機，每部約重130磅，最高成本亦在4000元至50000元不等。陳南昌表示，該校今年將再製20部迷你3D打印機，每部約重130磅，最高成本亦在4000元至50000元不等。



「開冷門科」銜接 育創意人才

## 「開冷門科」銜接 育創意人才

### 「開源技術」平市價八成 「陳南昌」分享創意科技

香港文匯報訊（記者 廖伊多）為配合學生對創科科熱衷，陳南昌表示，該校今年將再製20部迷你3D打印機，每部約重130磅，最高成本亦在4000元至50000元不等。

陳南昌表示，該校今年將再製20部迷你3D打印機，每部約重130磅，最高成本亦在4000元至50000元不等。陳南昌表示，該校今年將再製20部迷你3D打印機，每部約重130磅，最高成本亦在4000元至50000元不等。

陳南昌表示，該校今年將再製20部迷你3D打印機，每部約重130磅，最高成本亦在4000元至50000元不等。陳南昌表示，該校今年將再製20部迷你3D打印機，每部約重130磅，最高成本亦在4000元至50000元不等。



3D 打印殺入學界！ 創新活動玩到年底

王麗珍（左二）穿過跨月活動，能培養青年人對創科新科技的興趣，左一為香港青年協會理事會委員陳海。小圖為「Tinyboy」製作的打印模型。

## 3D 打印殺入學界！ 創新活動玩到年底

香港文匯報訊（記者 廖伊多）「3D 打印」已不再只是工程師的專利，而是進入普通中學的課堂。香港青年協會理事會委員陳海表示，該校今年將再製20部迷你3D打印機，每部約重130磅，最高成本亦在4000元至50000元不等。



陳南昌表示，該校今年將再製20部迷你3D打印機，每部約重130磅，最高成本亦在4000元至50000元不等。陳南昌表示，該校今年將再製20部迷你3D打印機，每部約重130磅，最高成本亦在4000元至50000元不等。

陳南昌表示，該校今年將再製20部迷你3D打印機，每部約重130磅，最高成本亦在4000元至50000元不等。陳南昌表示，該校今年將再製20部迷你3D打印機，每部約重130磅，最高成本亦在4000元至50000元不等。

陳南昌表示，該校今年將再製20部迷你3D打印機，每部約重130磅，最高成本亦在4000元至50000元不等。陳南昌表示，該校今年將再製20部迷你3D打印機，每部約重130磅，最高成本亦在4000元至50000元不等。

21 香港新聞

Zh  
知識  
Shi

24

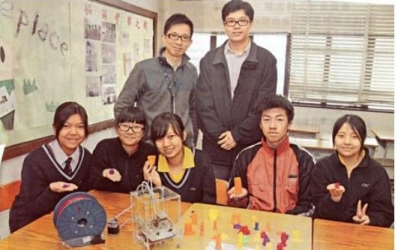
香港文匯報 2014年2月20日(星期五) 香港文匯報 WEN WEI PO



3D Printer 印出實物

科技讓學生專注設計

失敗過 才會成功



好人才成功關鍵，除了嚴密有條理外，朱栢權指出設計時也會有失敗的經驗。

參加展覽 覺得更多

好幾次嘗試，學生參與期間，要學會與同生人溝通的運作，而去不同的場合和方向，讓他們見識更多了。



# Marketing Proposal for Expanding 3D Printing Business Model in the Australian Market

**Do you have  
some ideas?**

The proposal should outline

- strategies and tactics to effectively promote our products and services,
- establish a strong brand presence,
- and drive sales and customer engagement in the Australian market.

# Thanks!

## Any questions?

Please contact us



[peggy@makeomnia.com](mailto:peggy@makeomnia.com)

