

The IDA Grant Project 2020 – For COVID-19

Project – Reusable Bandana with Self-Cleaning Technology

This project I intend to design a series of Bandana, which I can provide job offer for local people. They can make and coated their Bandana by themselves and also helping others. User can also recoat the chemical technology by themselves to keep using it to fight the pandemic

I / Mr. HUI will provide Training and design practice to empower them is a must!!!

How it works?

The coating of the face mask can kill bacterial and all micro organism, therefore it is an self-cleaning hygienic design product with my unique design. We can use it with face mask. It is a wearable product to prevent coronavirus.

The information of filter and filter replacement

Sample	Filtration Efficiency (%) @0.3um partical size	PD (mmH2O) flow rate: 32L/min	
1 Mask only	8.70%	2.3	
2 one "T"issue paper	45.75%	9.1	sandwiched with mask
3 two "T"issue paper (0+45°)	69.20%	16.8	
4 two "T"issue paper (0+90°)	70.10%	16.9	
5 two "T"issue paper (0+0°)	69.60%	17.1	
6 three "T"issue paper (0+0+0°)	83.00%	24.8	
7 two kitchen paper (0+45°)	89.20%	60.7	
8 one kitchen tissue	73.70%	37.1	
9 two kitchen tissue (0+90°)	91.30%	66.4	
10 Microfiber (K-Kwong)	82.54%	7.2	
upcoming MultiH *Nanofiber (K-Kwong)	86 +/-5%	lower < 5.82	Target

Temple Brand tissue

General Kitchen Tissue Paper

P.S. Event you have a package of face mask (surgical) the efficiency of stopping virus you may not know, and it can be useless sometimes, since the filtration can be 8%

If you can top-up with my design Bandana, it can give you an extra protection, you can put you fabric-sewing-mask or disposable face mask to protect yourself all day and if you are wearing fabric-sewing-mask the bandana can protect you mask for several days and keep using it.

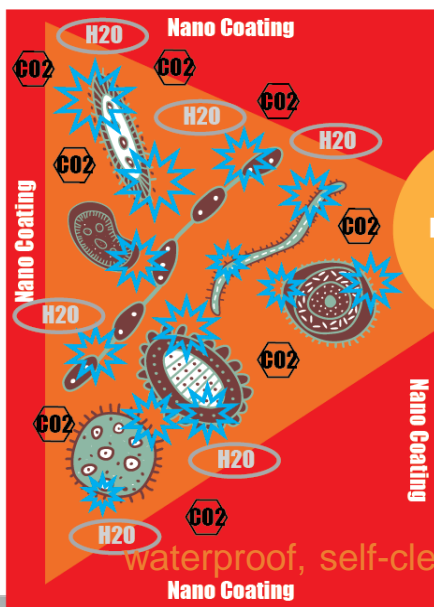
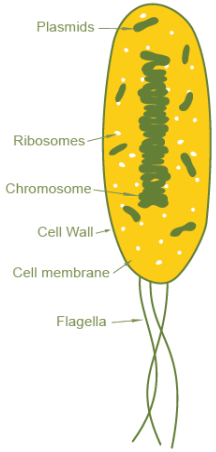
The wide range of the efficiency of face mask in the market

Ranges of Surgical mask available in market	7.51-88.2%	0.42-5.82	13 different masks available in market
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Image and information from Dr. K. Kwong's facebook post



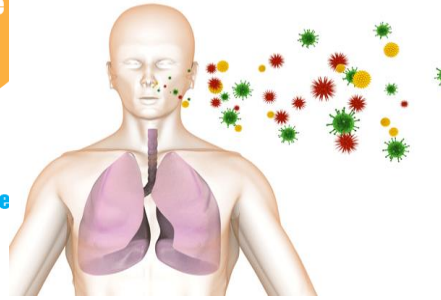
WATER REPELLENT



The Function of the Sustainable and Wearable Design

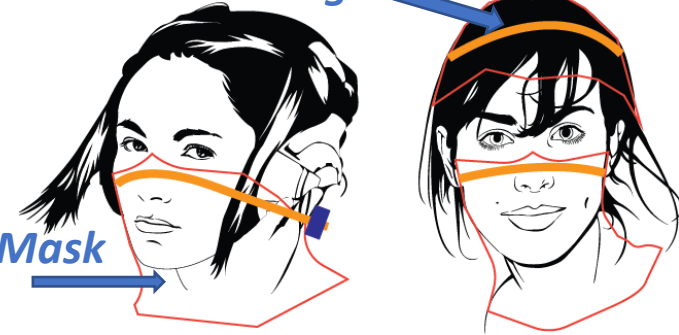
Light Source

Killing proce



Bandana in half face mask style
As Head Covering

As Face Mask



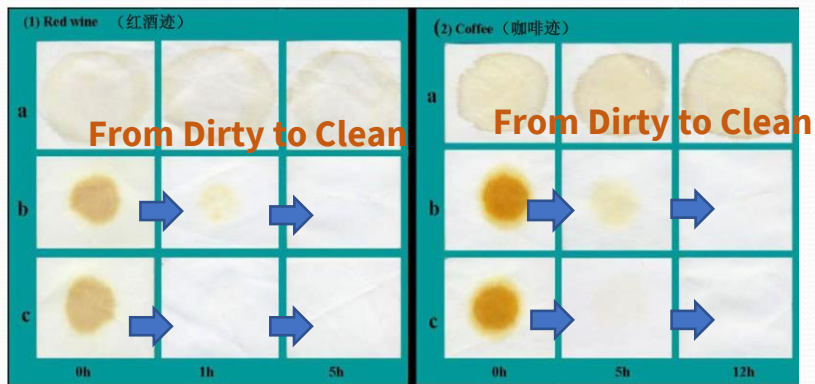
Easy tie release Button



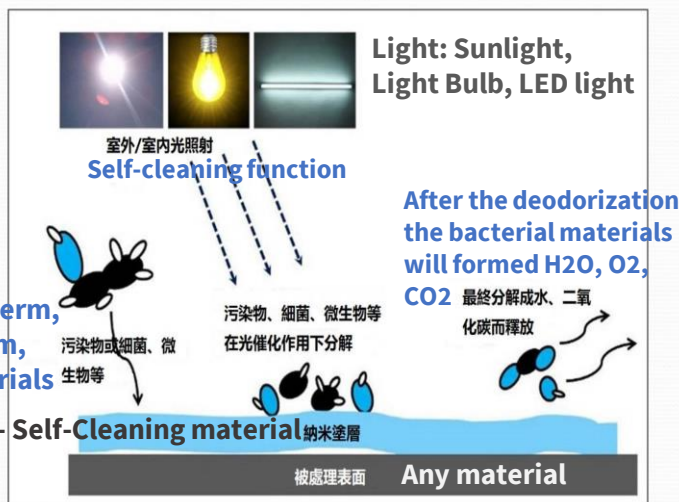
- Water-repelling function with self-cleaning function with anti-bacterial function
- Style of folding and wearing bandana designer demonstration with user test experience
- Keep dry! Keep comfortable! Keep hygiene!

The information of the technology and how it works by lab test

4. 光自洁技术 Self-Cleaning Function



光能自洁、抗菌消臭主要原理：
Mechanism of Light-induced Self-cleaning, antibacterial, deodorization.



Bacteria and germ, micro organism, polluted materials

Nano Coaling - Self-Cleaning material 納米塗層

7.2 室内光杀菌测试 Light (indoor) Test

Tested specimen (测试样品)	Bacteria count(colony forming unit, CFU per ml) over contact 24h (细菌数量的变化, 接触时间24h)		Result: % of reduction of staphylococcus aureus细菌数量的变化(百分比)
	0 hour	24hours	
Clothes 测试样(布)	1.01×10^5	$<1.0 \times 10^2$	-99.9%
对比样(布)	1.0×10^5	1.53×10^6	+1530%



after 24h visible light illumination 700-800lux
可见光下24小时照射 照度700-800lux

Hot weather and higher humidity cause germ and bacteria, it is easy to make us weak and sick!!!

Mainly for everyone, under the rainy day, it is a good wearable product to protect yourself from germs and bacteria.

This technology can also a solution of the above mentioned and the coating can be wash 30 times and after that user can buy the coating spray and coating again, so you can use the technology during the period of pandemic and after, for your own hygiene concern propose!

3. 獎項



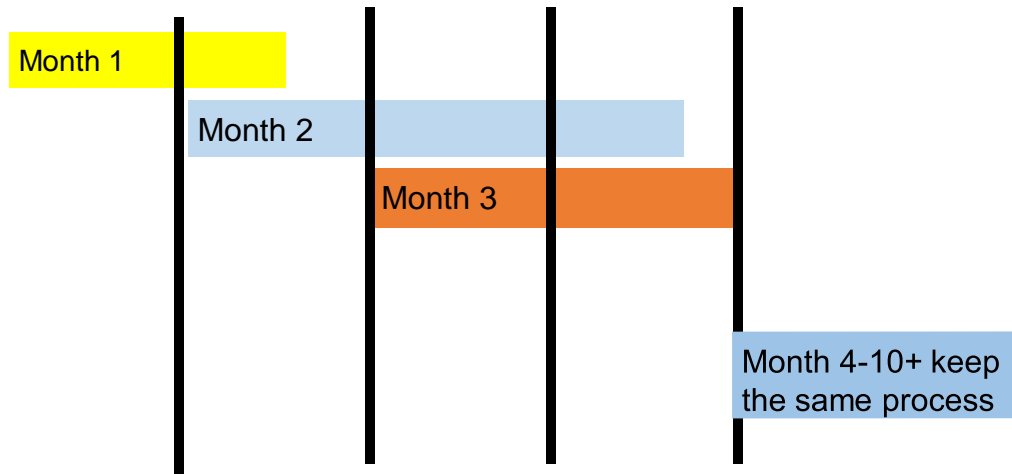
Patented and cert of the technology in H.K. PRC and Overseas

根据专利法第28条及其实施细则第38条、第39条的规定, 申请人提出的专利申请已由国家知识产权局受理。现将确定的申请号、申请日、申请人和发明创造名称通知如下:

申请号: 201911026251.6
申请日: 2019年10月25日
申请人: 森宝科技有限公司
发明创造名称: 光自洁、无氟防水多功能纳米涂层的制备方法及应用方法

经核实, 国家知识产权局确认收到文件如下:
说明书摘要 每份页数:1页 文件份数:1份
发明专利请求书 每份页数:5页 文件份数:1份
专利代理委托书 每份页数:2页 文件份数:1份
说明书 每份页数:7页 文件份数:1份
权利要求书 每份页数:2页 文件份数:1份 权利要求项数: 9项

• **The Implementation plan
– from Month 1 – 4 , 2020**



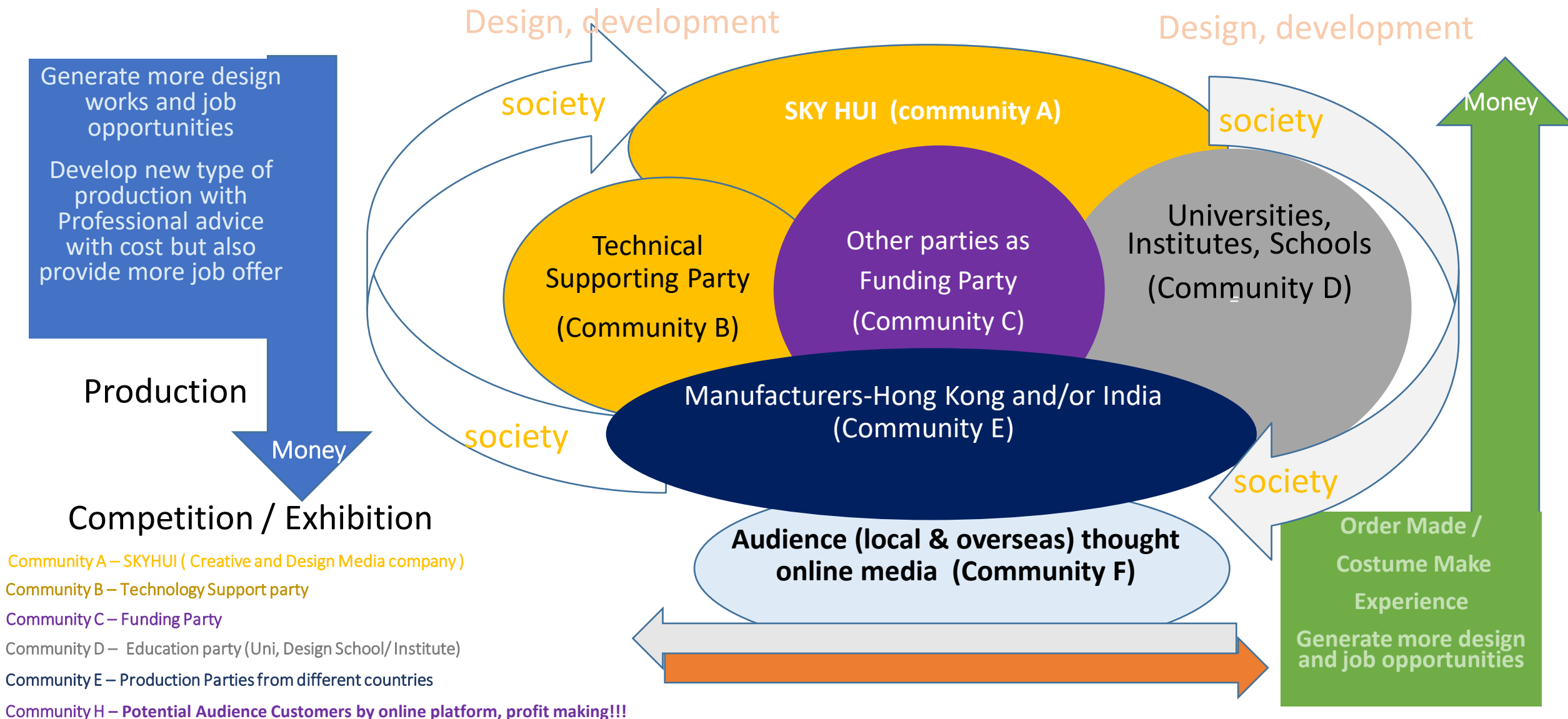
Within 3 months, I can produce over 300 pieces of coated product for the needy. And I can provide job offer for the jobless people and empower them.

Research and Design Production schedule

Stage 1	Stage 2	Stage 3
About 35% of the funding	About 35% of the funding	About 30% of the funding
After linked up with the target parties then learn and experience the skill by practice	Expense and payment for partners	After the Stage 2, I will launch the design work(s) by exhibition or competition to explore the potential audience and learn from their feedback then perfecting my object design work(s)
Stage 2 payment for Production team as sewing workers, NGOs and technical services	I will collaborate with some NGO, University or Design institutes in H.K. for user test and photo and video shooting update for the online promotion materials	Manage the online exhibition or further exhibition
Then try to develop with the parties and explore more opportunities of the skill and the materials.	And preparing the online platform and website design for connecting the needy for distribution of the products	I will keep collaborate with some NGO, University or Design institutes in H.K.
	There are some networked NGOs or individuals will use the design works	I can reach more target audiences and support them

Social Organism chart of This Project

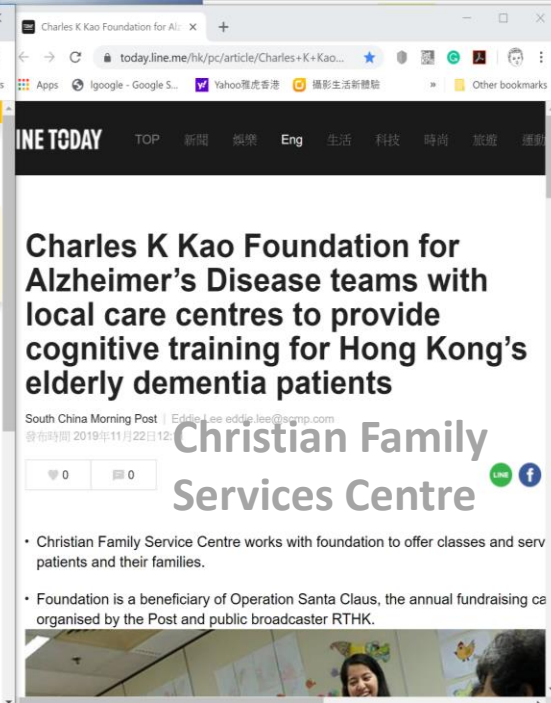
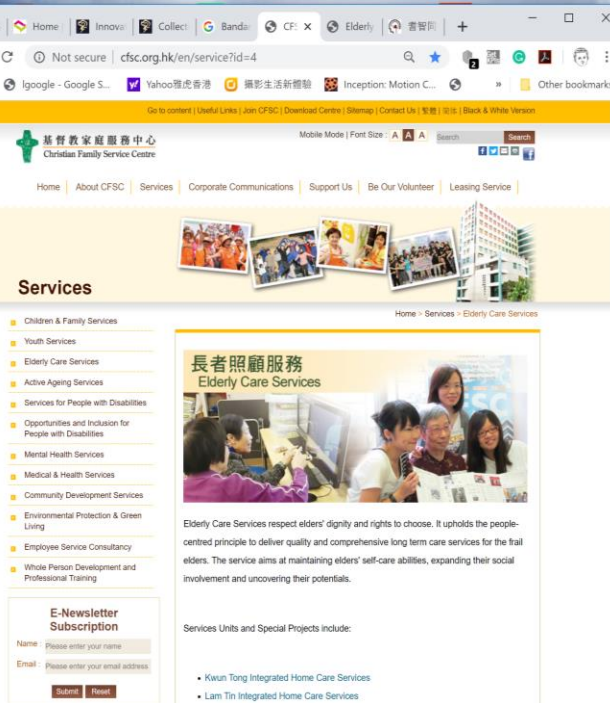
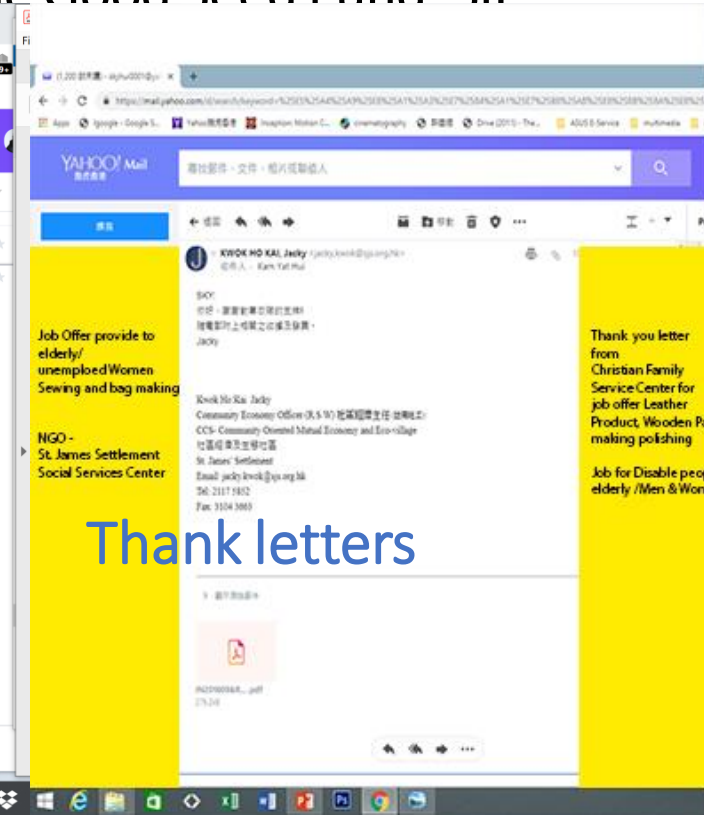
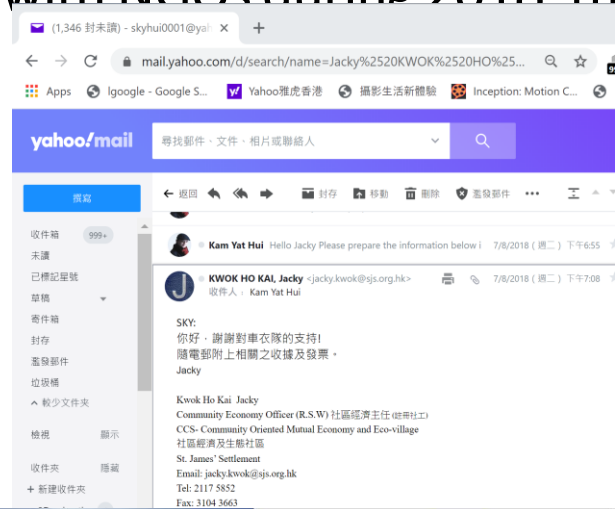
Prepared by SKY, Kam Yat HUI



Collaborating different parties for design any self-developing project as products and media Project, sharing workload, skillset and gaining job opportunities to different parties

SKYHUI provides job offers and empowering them with design technology and skill to the disable people and unemployed women
 Collaborate experience with NGOs during 2018, the Good Seed Fund, SIF

Reunion for this project

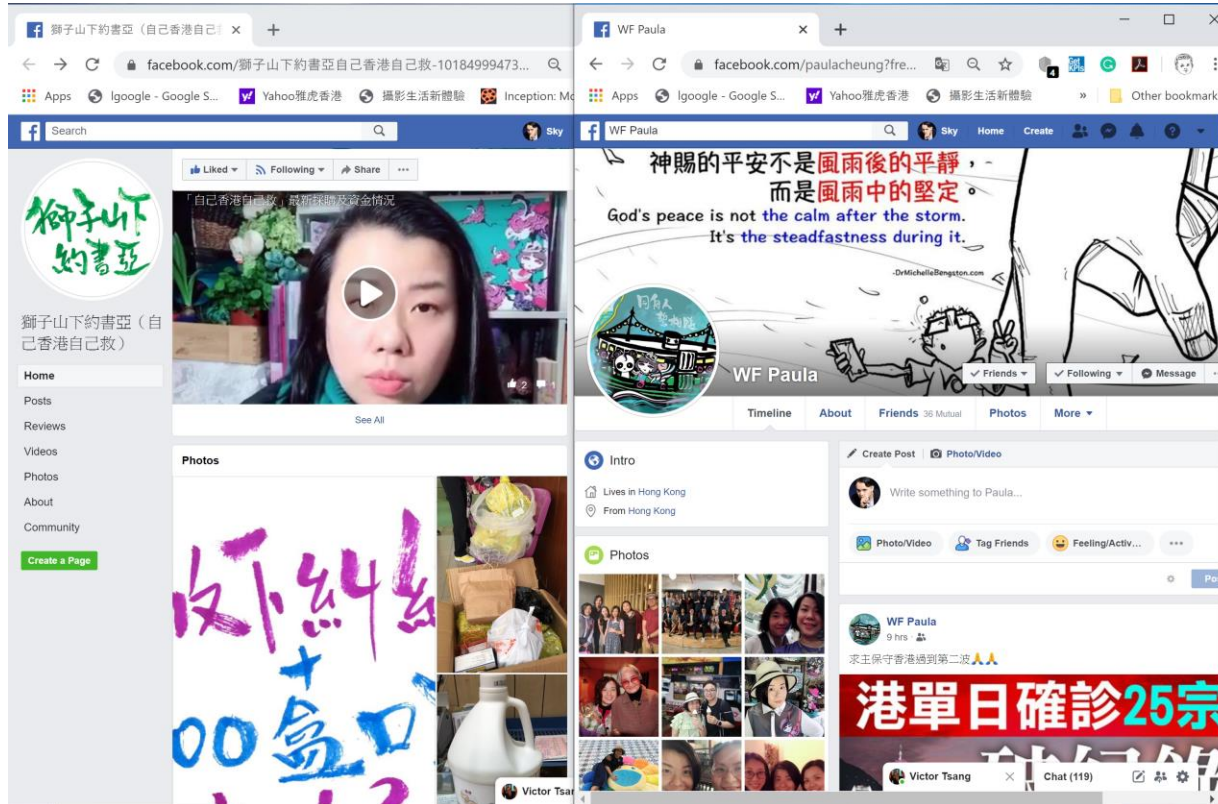


Thank letters

Thank letters

- Project Link the Unlink – GoodSeed
- Sheltered workshop of CFSC, leather and wooden work design project

The collaborate parties of SKY HUI and the target parties this project will supports
– WL Paula supported over 400 people



- WP Paula
- DIP Alumni – we share the same center at Wong Chuk Han Centre during 2017-2018
- And friend of SKY HUI which can provide more advice during the project

Supporting between the needy and me

Paula will supporting me to deliver my mask to the needy as my target audiences
I will provide my mask and provide the re-coating services for them too.

Lean Canvas

Topic: Bandana Project by SKYHUI

21-April-2020

Prepared by SKY HUI

Problem

1. Lack of ECO Concern, organic material design in HK
2. The local need to be reach and spend time on research and development
3. Cost for research and development in material learning by craftsmanship practice
4. Companion design is a good but also get problem during the exclusion
5. The product of using those eco materials will be charge expensive

Solution

1. By field research, I can discover more opportunities and develop more design works and capture them during the research process
2. During the development of design work by using the eco material, I can collaborate my works with local craftsmen and Hong Kong NGOs for a new experimental design collection exhibition and research to gain exposure.
3. Universities, institutes, school students are also good platform for design research, they can also involve during the exhibitions. Introduce the concept and idea of eco, design and production.

Unique Value Proposition

For designer - during the on field research, I can collect the update information about the companion design and learn the skill set by using the idea in practice to develop a new prospective in Hong Kong, Greater Bay Area, overseas etc ...

For audience (public) - after the research I will design an experimental collection by using the companion planting harvest or related materials.

To promotion my works and the research trip, in order to gain more exposure . During the exhibition, I would like to introduce more about the eco concern in design and deliver the message of design problem solving and design discovery, over the world by internet.

To NGOs and craftsmen - I can introduce their skill set and idea of eco material using with craftsmanship can be effective and efficiently to do their task and also produce material for design purpose for designer. Job opportunities can be increase, NGO, shelter workshop members

Disadvantage

1. Expenses of the trip is costly
2. Need to do more promotion and connect with different parties
3. People may not understand the Project which have such powerful function

Channels

Path to customers
App store, online, exhibition, word of mouth

Customer Segments

Target customers
Investors (Funding Parties)
Design entrepreneur
Students
Lecturers
Public (by online video and exhibition promotion)

Key Metrics -- Key activities you measure

1. Video promotion, online media update, exhibition and interact with people by online and offline to promotion my design project and be a positive idea for the research outcome special the review session.
2. Online Platform or app

PRODUCT

Cost Structure

Management Fee (Salary): Full time the Applicant
Production for Pilot -NGO and some elderly or disable who have skill set
Software Engineering services and maintenance
Rental fee, utilities, Exhibition, outreach events and activities

MARKET

Revenue

Revenue Model: Download and forward
Life Time Value: 5+ years
Revenue:
Gross Margin:

Streams

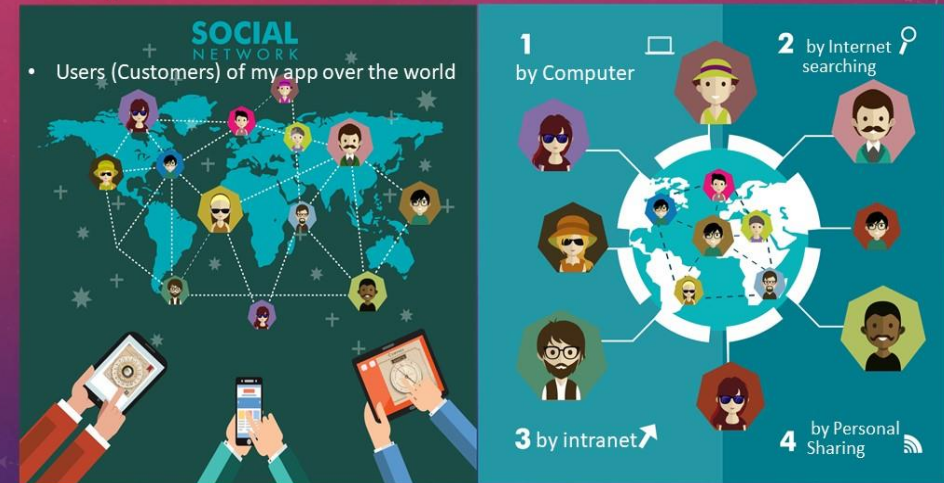
Exhibition, Competition, online Promotion for the research

Production Plan & Schedule



SOCIAL MEDIA – FUTURE PROJECT

- The app can be also a social media channel for the user



• Users (Customers) of my app over the world

They can share the photo and skillset and there opinion of the app or the lenses they like

- Users (Customers) of my app over the world and communicate!

PLATFORM AND SPEC TO APPLE APP STORE TO GOOGLE PLAY STORE

- iOS
- Target operation system: iOS 9.0+
- Deploy device: Apple iPhone X or later model (Phone only)
- Support resolution
- 640 x 1136 (above)
- 16 : 9 aspect ratio
- Single UI orientation mode

Android

- Target operation system: Android 7.0+
- Deploy device: Android smartphone
- Support resolution
 - 320 dpi (xhdpi) (above)
 - 16 : 9 aspect ratio
- Single UI orientation mode

Additional maintenance

- App checking on the most update OS
- Bug fix on critical issues due to official OS update

Team Leader and members

SKY, Kam Yat HUI

- Design Entrepreneur, Design Media & Video Producer
- Over 10 years experience
- Skilled platform, Screen writing, script writing, Media Production and planning
- Skill in Design: ECO Design, Object Design, Design management, Design planning, Art and craft in eco objects
- Exhibition arrangement and planning
- Skilled Language: English, Cantonese

Team

Ho Ka Kwai, Mouse

- Software Engineer
- 10 years working experience
- Skilled platform: Android, iOS, Window, Linux, CentOS, Ubuntu
- Skilled Languages: Objective-C, Swift, JAVA, PHP, C, C++, JSP, ActionScript
- Good at analyze the requirement, design and implement the optimization system
- And also the networking protocol design

Strategic Partner

Robert Ko and owner of the Chemical and science tech support and provider

Strategic Partner

Avika Designs – Bespoke Scarves and Fabrics

Printing and making the scarf
avikadesigns.co.uk

Strategic Partner

NGOs – Christian Family Service Centre

Production for the charms for scarf design

Uni, Design School Students

- Media Production team : 3+
- Users: 10+

Awarded and Supported parties

Supported parties:



HONG KONG
SMART GIFTS
DESIGN AWARDS



香港智慧禮品設計大賽 2013
HONG KONG SMART GIFTS
DESIGN AWARDS 2013

