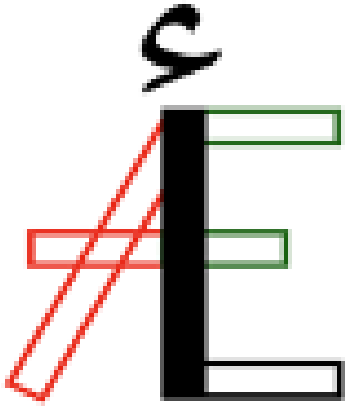
مـركـز خليفة للابـتـكـار
khalifa INNOVATION CENTER



ADDITIVE LIGHT FABRICATION

KHALIFA INNOVATION CENTER STARTUP PORTFOLIO

VALIDITY

Q1-Q2 - 2022

FOUNDING TEAM

AFRA S. ALKETBI, CEO
DR. HONGXIA LI, CTO
DR. AIKIFA RAZA, COO
PROF. TIEJUN (TJ) ZHANG, CBO

THE PROBLEM

The gifts novelty and souvenir market is mostly known for the highly commoditized goods that it produces en masse, using cheap materials.

But there is an increasing demand for more personalized and unique gifts that could be offered to guests from official delegations, to collectors or as part of memorabilia from museums.

While traditional 3D Printing has been addressing some of the customization needs, the models produced are often easy to copy and lose their authenticity and value quite rapidly.

In addition the materials used are limited and the level of customization are hence limited as well.

LIMITATIONS OF EXISTING SOLUTIONS

Existing solutions use mainly off the shelf 3D Printers and standard materials which limits the levels of customizations that can be offered as well as the resell value of these 3D printing models.

The souvenirs and gifts created by existing solutions are often easy to copy and rapidly use their resell value.

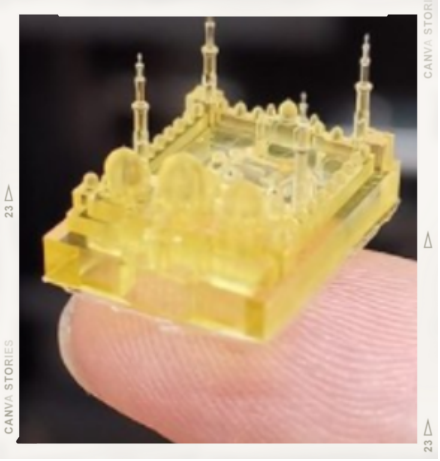
MARKET OPPORTUNITY

The gifts and souvenir market is today a 16B USD Market, and is today growing at 5% CAGR. But more interestingly the novelty and customized souvenirs represents 31% of that market and that trend is growing.

We see at least 3 different segments:

- Unique novelty gifts used by governments for official delegation visits
- Collectibles & Memorabilia (events)
- Museum art work replica

Our product is ideally positioned to support all three segments, with an ambition to initially target government and museum segments.



THE SOLUTION

Our solution enables nano-scale 3D printing of souvenirs using various types of materials and coatings.

A 3D model of a souvenir is typically customized for the client and has unique wanted characteristics.

Our patented technology allows us to perform coatings that will provide these characteristics at production time.

In addition we can engrave serial numbers at nano scale and mint an NFT for each object produced to guarantee authenticity and record ownership of that item.

The scarcity in production, combined with the tradability of the NFT, will make the item desirable for collectors.

BENEFITS

The benefits of the solutions are multiple:

- Tiny size with extremely high resolution ~2 µm featured size
- Unique characteristics are provided by applying mineral coating, light absorption or reflection coating (colors, glowing)
- Interactive (changing colors)
- Custom 3D models can be created
- Nano-scale engraving can provide a hard to forge ID.
- Desirable and collectable (NFT)

BUSINESS MODEL

Custom 3D design of objects with rendering of unique characteristics, the approach is to offer these as collectibles that will be backed by a limited number of NFT's. The NFTs and collectible can then be sold on a crypto exchange at premium price.

TRACTION

The team has received great interest from Museums and Government officials that want to have exclusive gifts for foreign delegations as well as collectors

The startup received initial orders from Khalifa University and Le Louvre Abu Dhabi.

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