

# WEB3.0 SMART INTERIOR DESIGN

HELIX++



# Contributors



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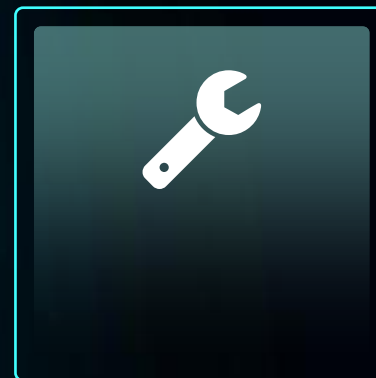
Yuzhang Jiang



# Problems



Creation copyright protection issues in the interior design industry



Restricted secondary creation in the interior design industry



# Solution



Using blockchain technology to reasonably record the creation and conversion process of works.



Supporting full-process viewing of works. It can trace the source of all multiple creation works with one click.



Providing secondary creation capabilities based on other people's works.



Utilizing copyright protection capabilities, enrich creative space, and accelerate industry exchanges.



# Features



IPFS



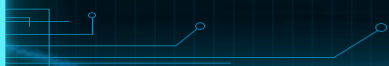
Venachain



Unreal Engine

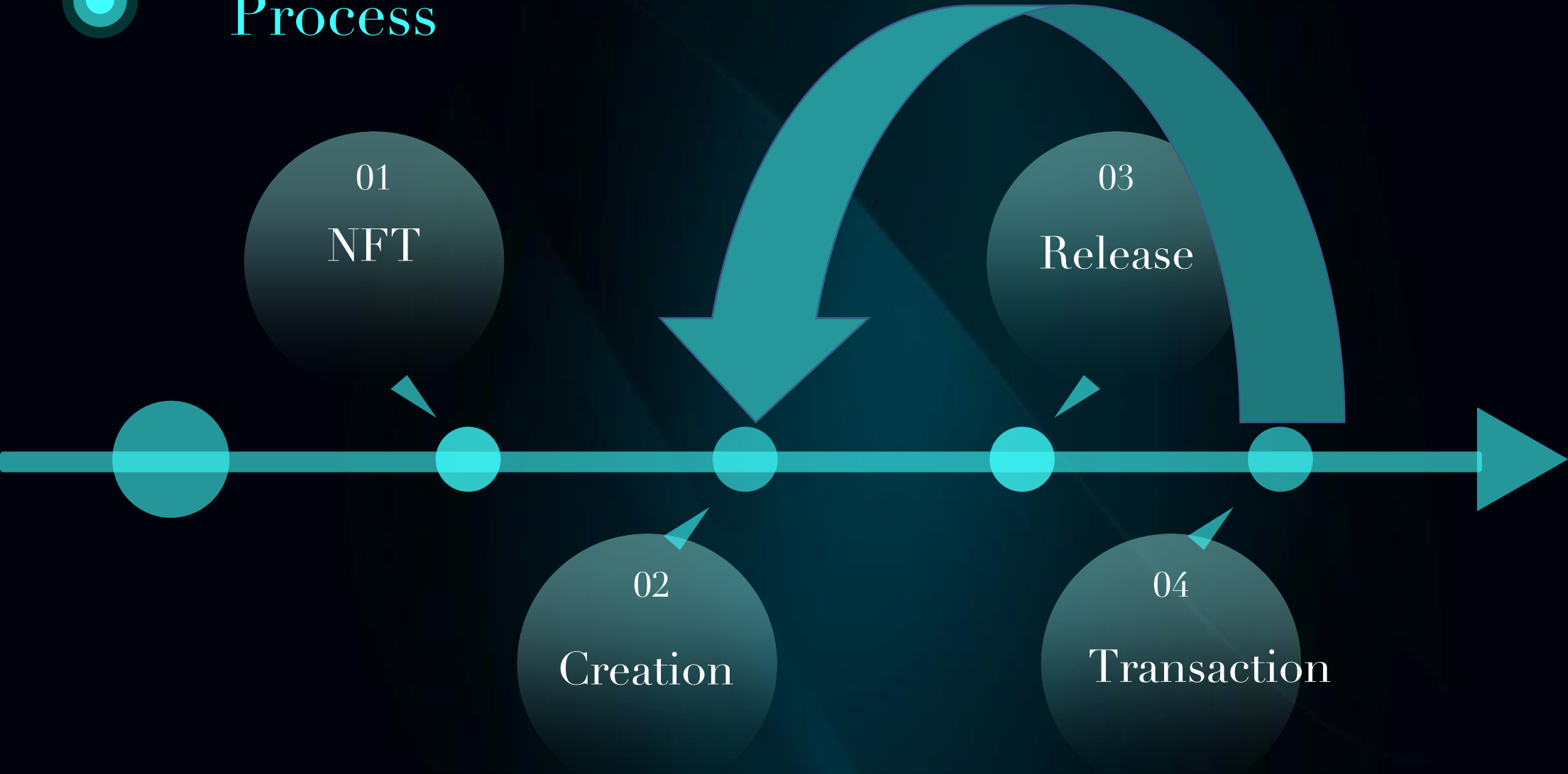


Artificial Intelligence

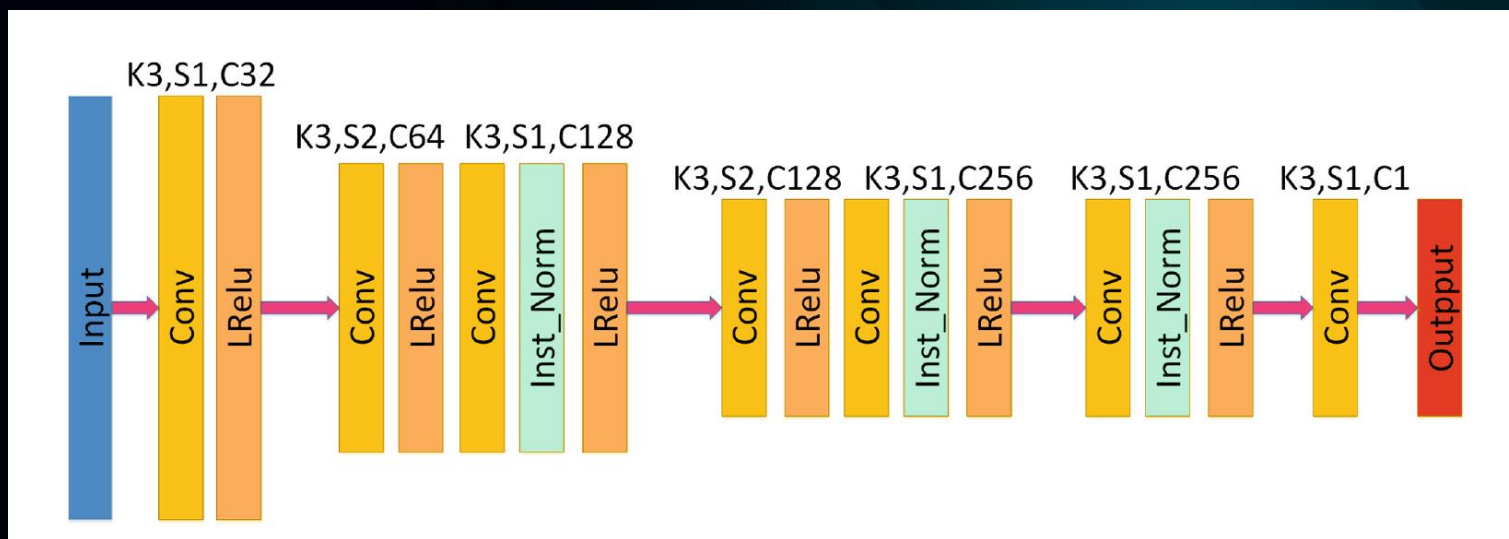
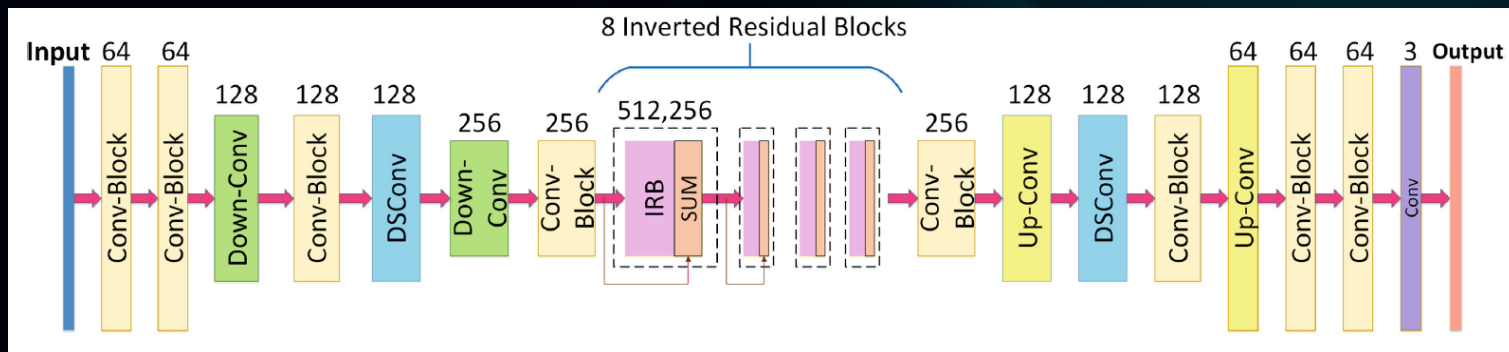




# Process



# Demo -> ACG NFT





# Style Transfer

Style transfer is a computer vision technique that allows us to recompose the content of an image in the style of another.

If you've ever imagined what a photo might look like if it were painted by a famous artist, then style transfer is the computer vision technique that turns this into a reality.

At the beginning of Metaverse, there are few materials, while the traditional method requires users to construct manually. Our ST method allows users to customize the generation of furniture, floors, walls, etc. of various materials.

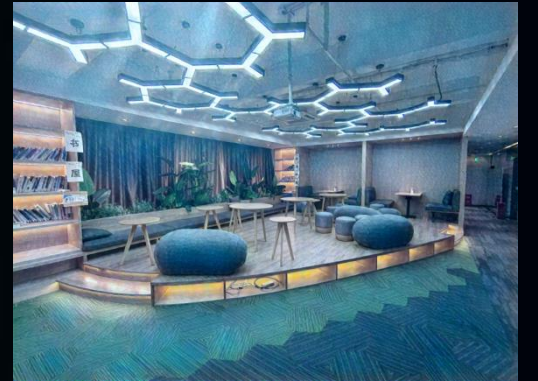














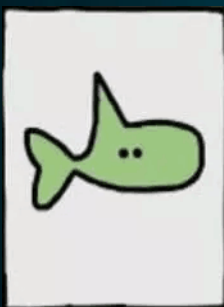
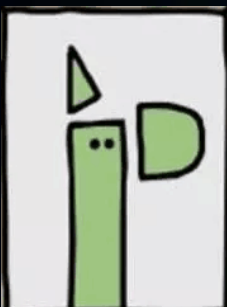
# Art Style

Regarding image processing, the first thing that comes to our mind is the filters, which is mostly in the camera function option of our mobile phones.

Here we propose a solution to transform your painting style into Georges Braque, Maurits Cornelis Escher, Pablo Picasso, Salvador Dalí and we call it AI perpetuate artwork.



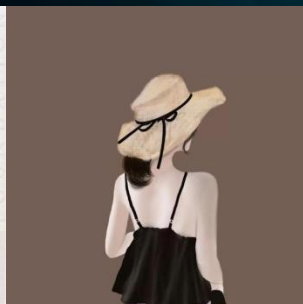
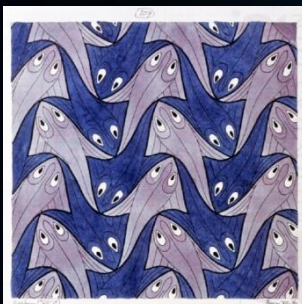
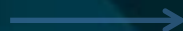
# Art Style





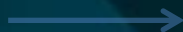
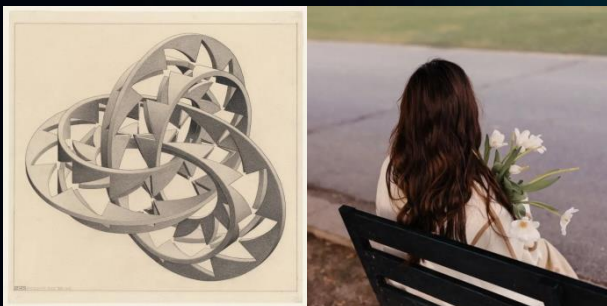


# Demo -> Portrait





# Demo -> Portrait





## Demo ->Living Room Design

Step I: We have an image identification algorithm to transfer flat room plan to JSON file.

Step II: The JSON file can be imported into Unreal Engine 5.

Step III: We create a program to visualize the JSON file by creating a 3D scene of room, with which interior designers can do their works in Unreal Engine 5.





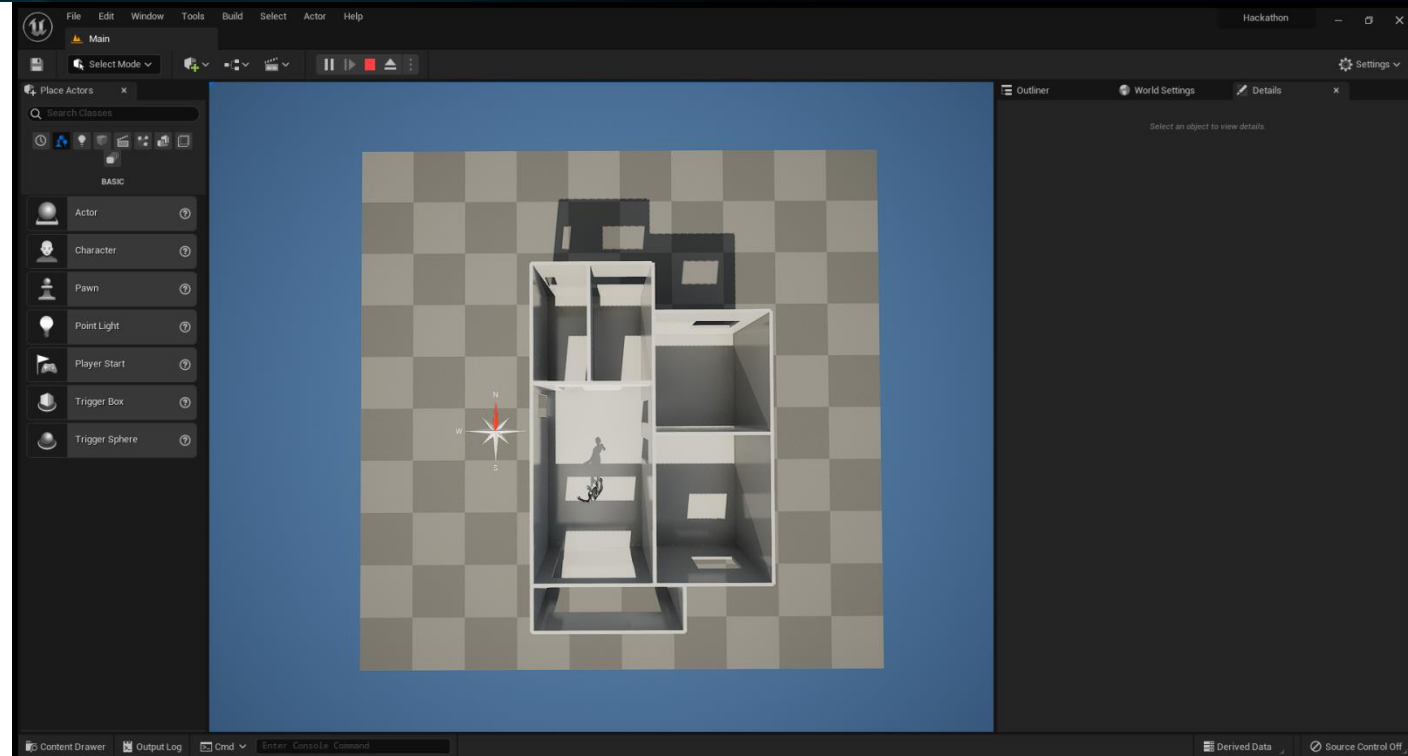
# Demo ->Living Room Design

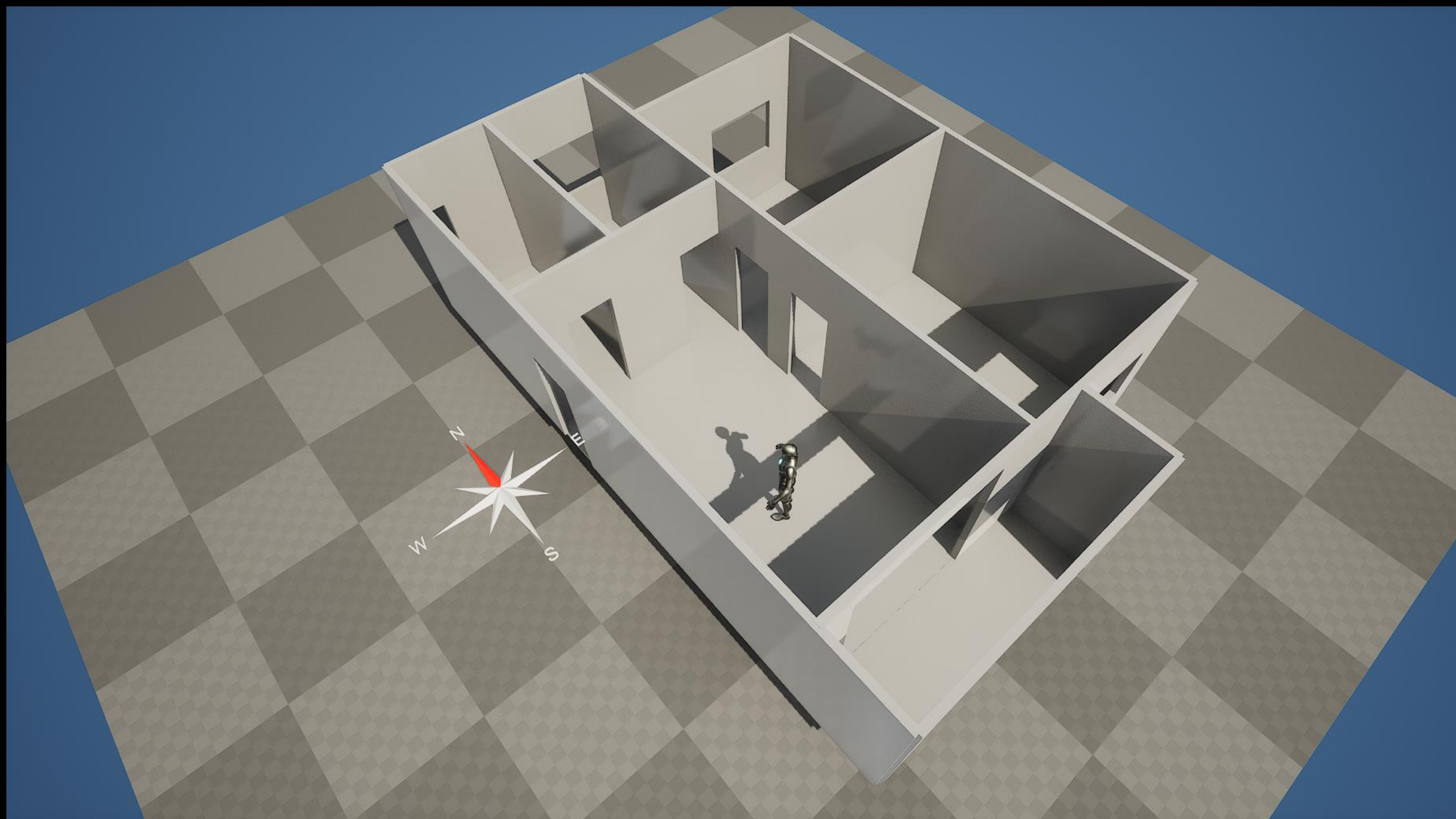


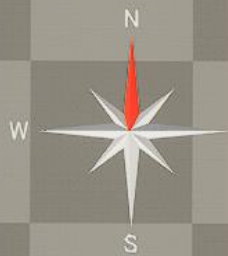
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4    "RoomName": "Dining Room",
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8      "Y": 1000
9    },
10   "WallData": [
11     {
12       "LocationXY":
13       {
14         "X": 0,
15         "Y": 0
16       },
17       "Size":
18       {
19         "X": 500,
20         "Y": 10,
21         "Z": 0
22       }
23     },
24     {
25       "LocationXY":
26       {
27         "X": 0,
28         "Y": 0
29       },
30       "Size":
31       {
32         "X": 10,
33         "Y": 800,
34         "Z": 0
35       }
36     }
37   ]
38 }
```



# Demo -> Living Room Design









# Conclusion

- Provide creative copyright protection for interior design industry
- User Created Change Space Owner and Change Copyright Owner
- Copyright holders enable users to recreate via smart contracts

THANK YOU

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