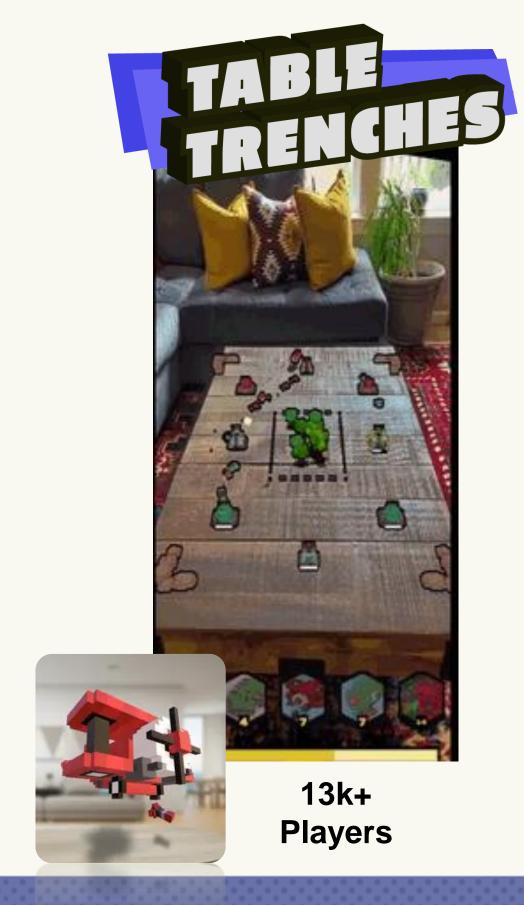
# Designing a More Immersive AR Strategy Game in 'Operation Living Room'

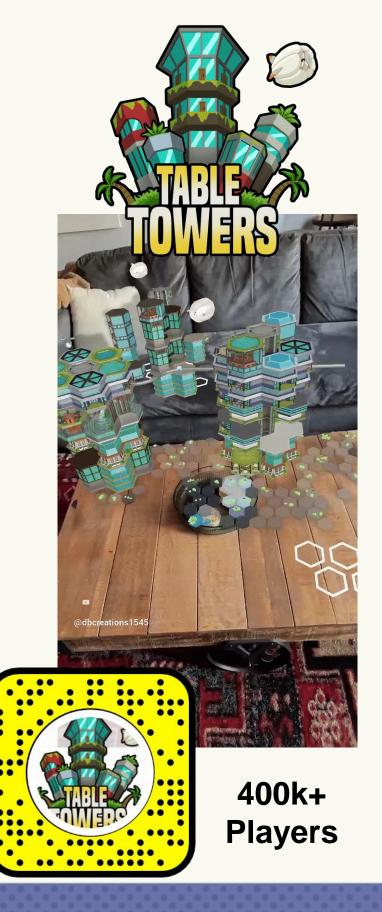
Dustin Kochensparger & Blake Gross Co-Founders, DB Creations

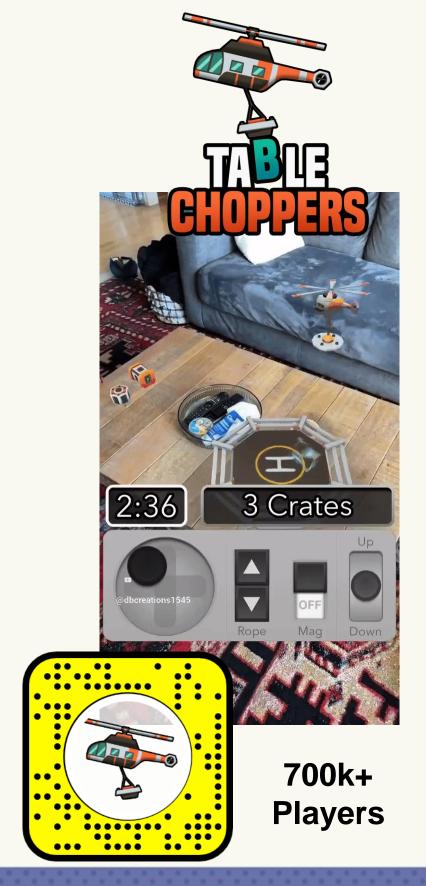




#GDC23







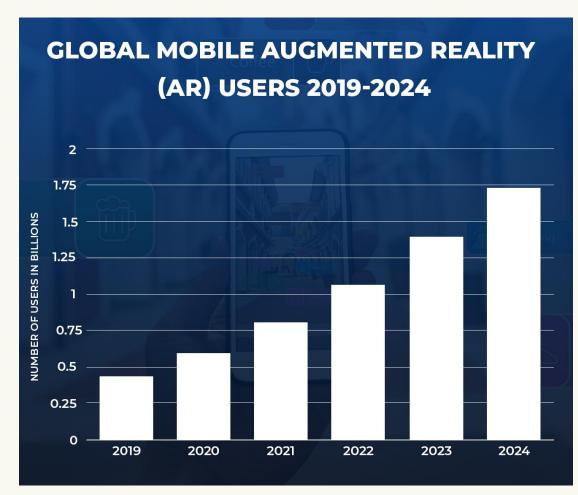
#### **Development Speed**

## Project Info d Submit Lens ~ 💆 💽 💥 🧔 🗗 🖽 ¶ View 2D Scene Layers -Face Retouch ▼ 🐉 First Head Face occluder ► = FaceObjectContainer Face occluder ► = FaceObjectContainer Overlay Camera

#### **Technology Advances**



#### Reach

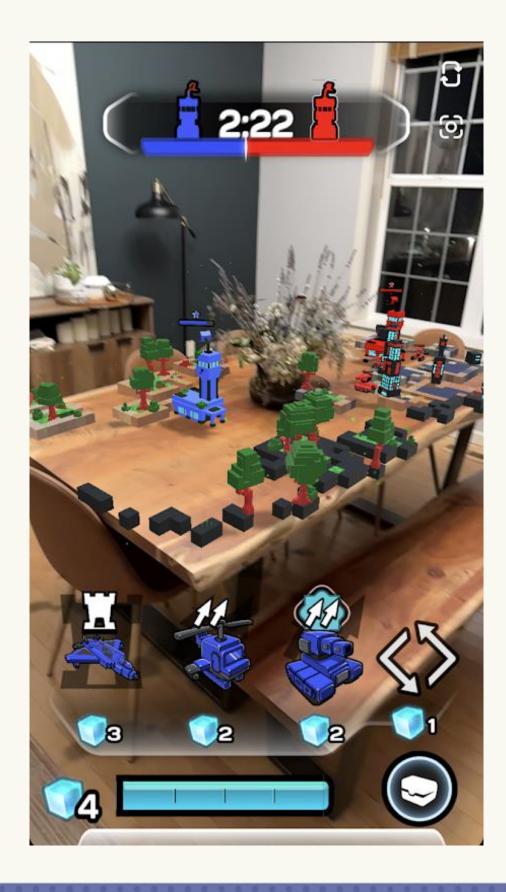








Over 1.6M Players!





Winner, Lens of the Year (Play) 2022

Snapchat is testing Lenses with power-ups and upgrades that you can buy

Aisha Malik @aiishamalik1 / 9:00 AM PST • December 6, 2022

**Ц** с

One of the <u>first lenses</u> with digital goods monetization





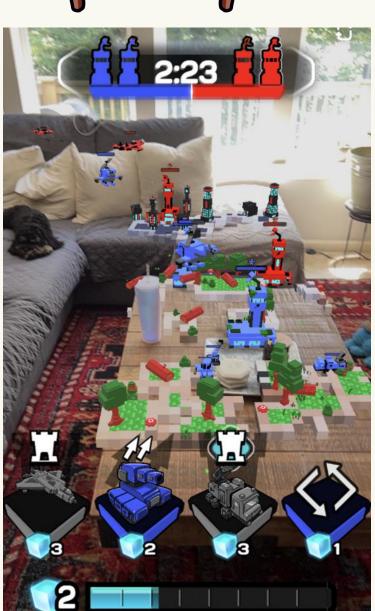


Release: 2020

Platform(s): App Store, Play Store, Nreal

Flat plane scanning only





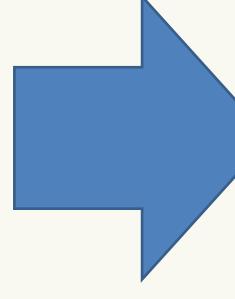
Release: 2022

**Platform: Snapchat** 

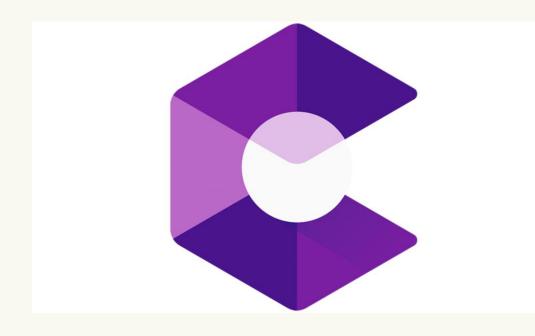
Room-based depth mesh



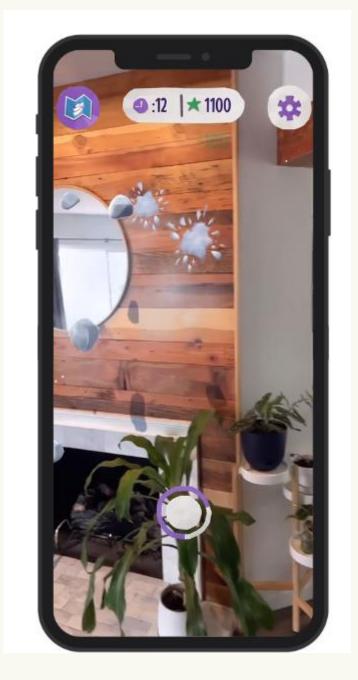












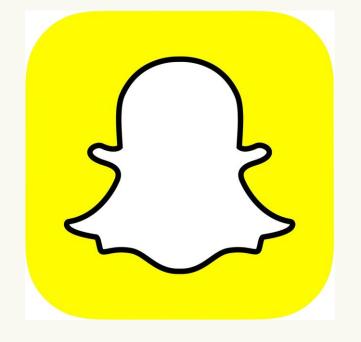
**Meshing and Occlusion** 



**Connected User Flow** 



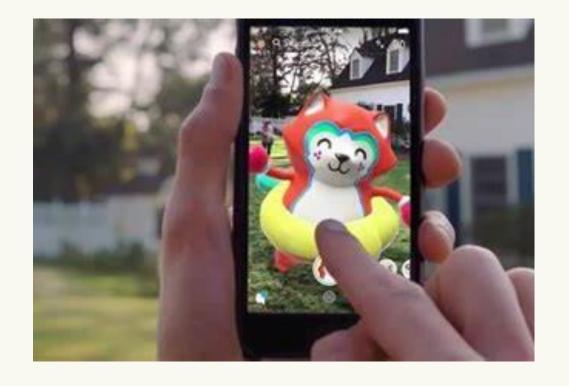




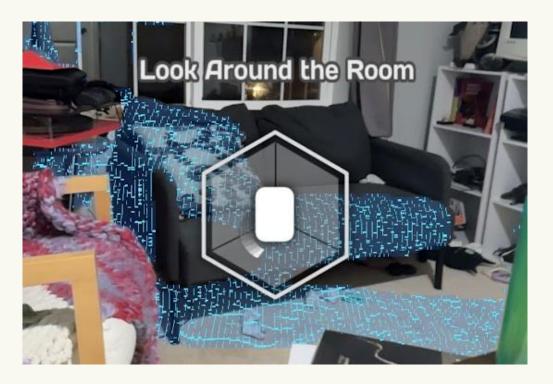
**Distribution Platform** 



## Designing for a Mobile AR Audience



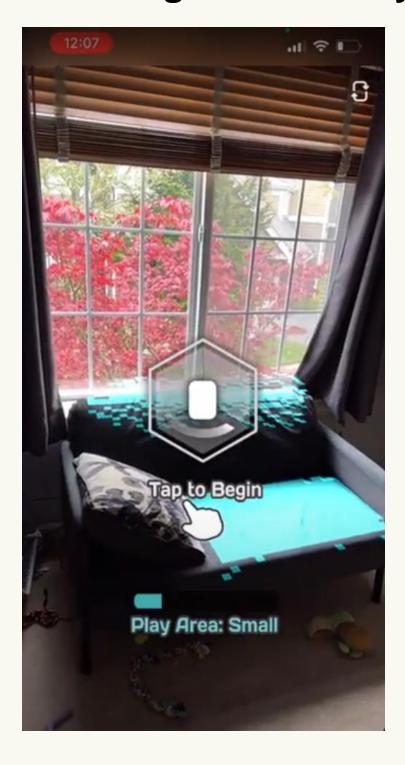
#### **Playspace Setup**



#### **Playing Together**



#### **Minimizing Time to Play**



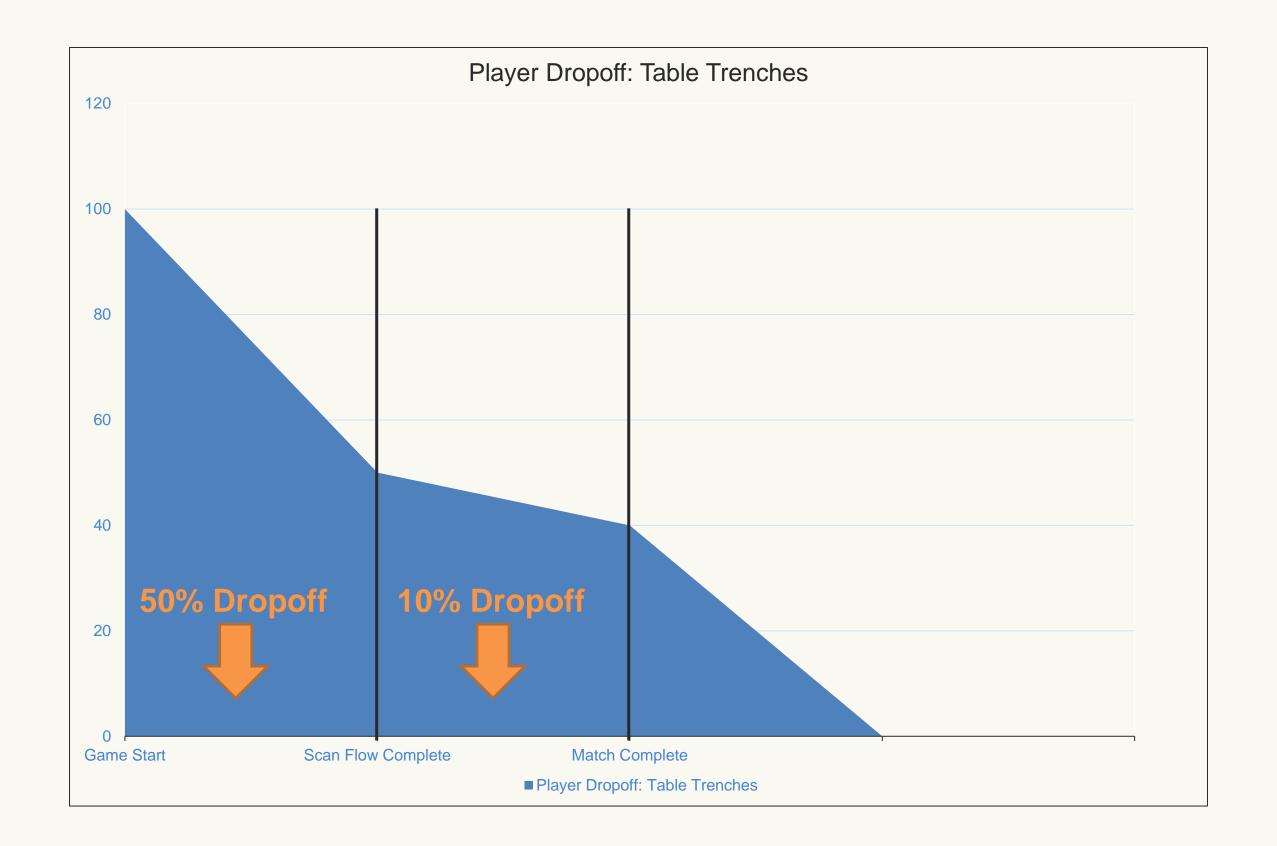
#### **Unit Interaction**



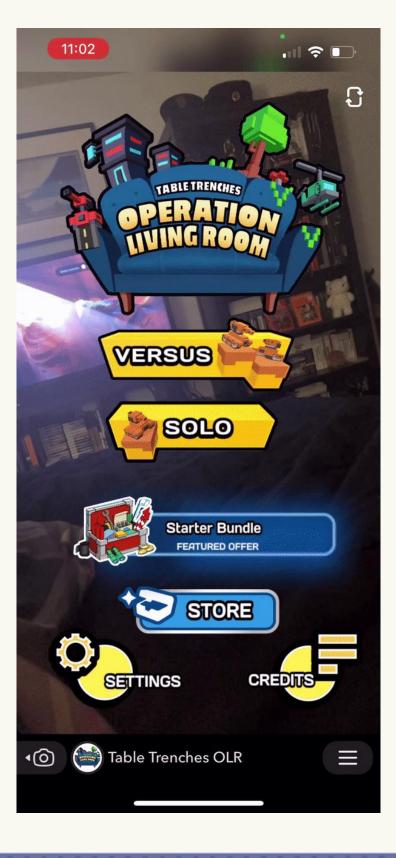
#### **Monetization**



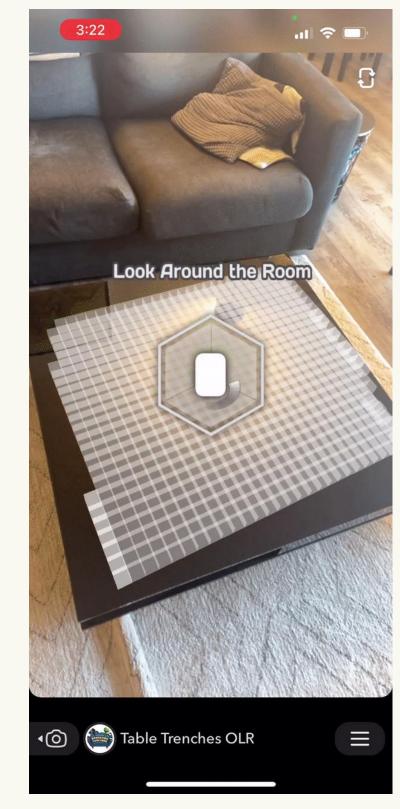




Visual scan shader combined with traditional 2D spinner



Visible voxel grid, scaling to various map sizes



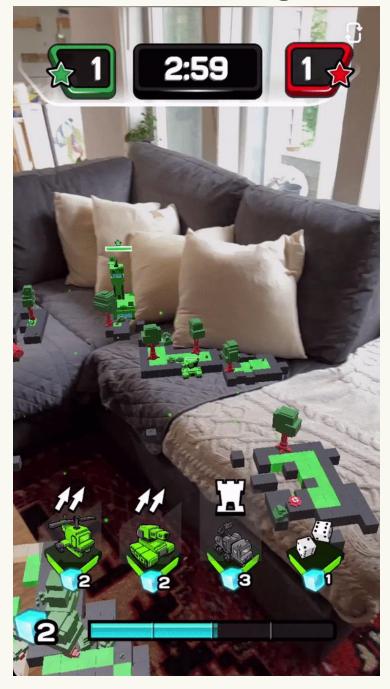


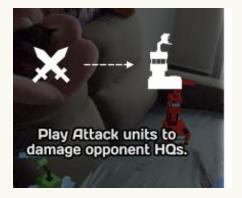
## Teaching the user to tap, but sometimes they don't listen!





## Units can attack from anywhere – no range rings needed









#### **Digital Storefront**



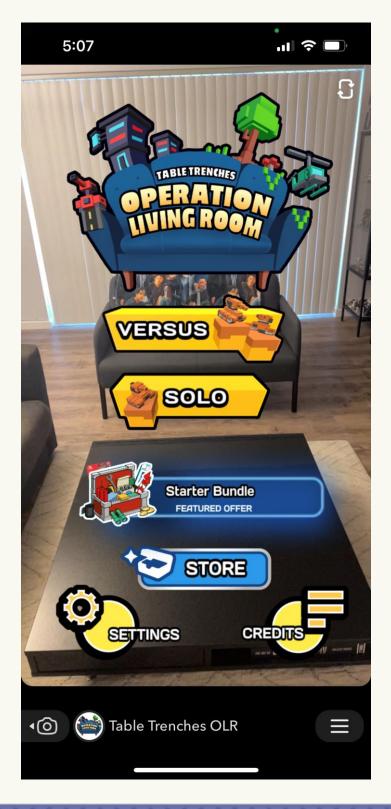
#### **Item Categories**





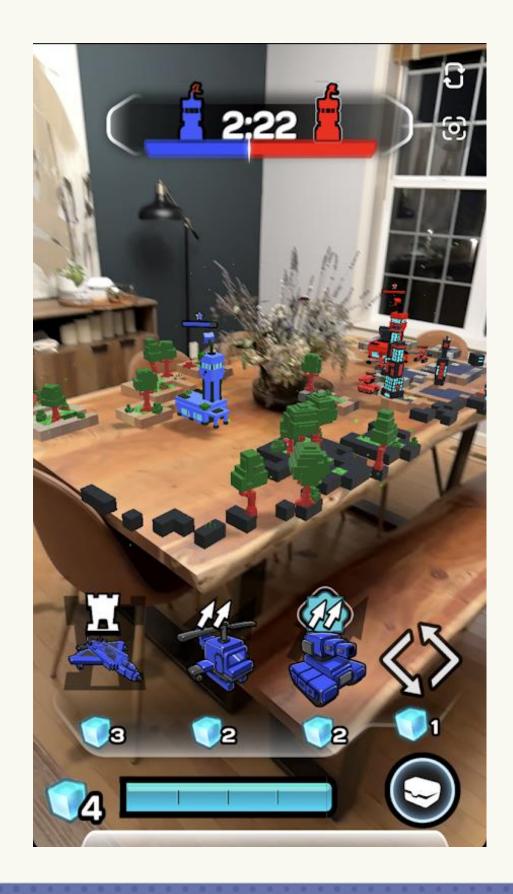


#### **Featured Bundle**





- Determine playable surfaces
- Cache unit movement paths
- Generate virtual terrain

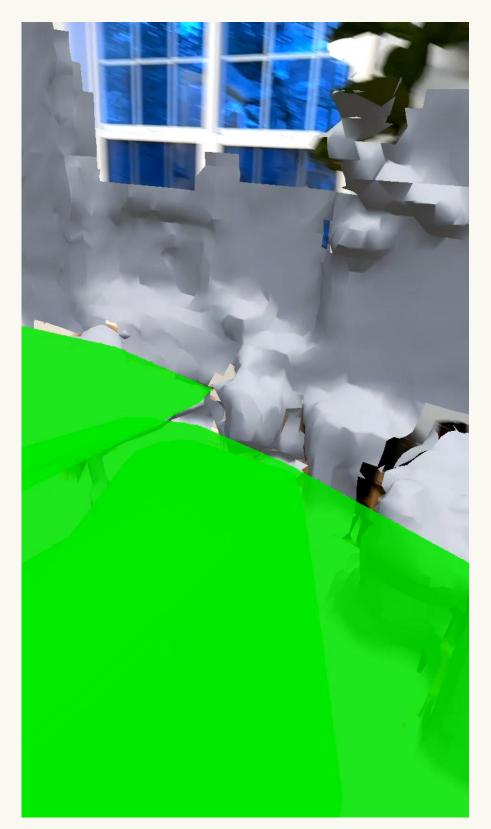




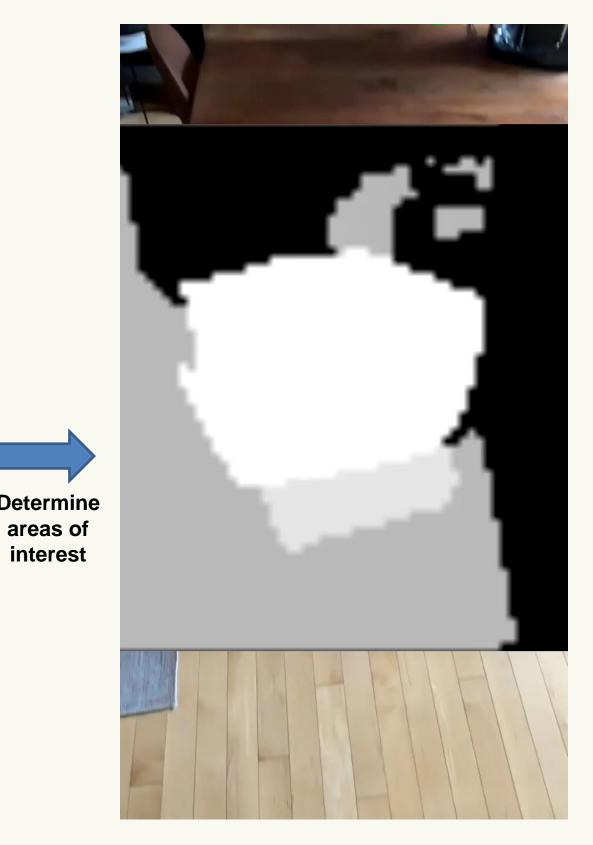


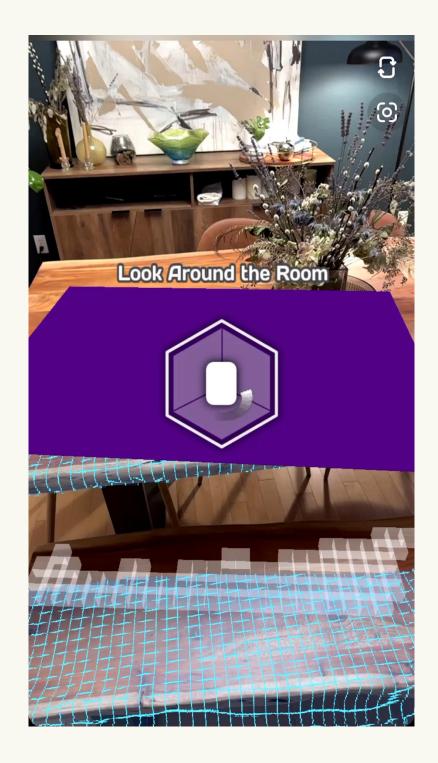


Get tracked plane and world mesh data



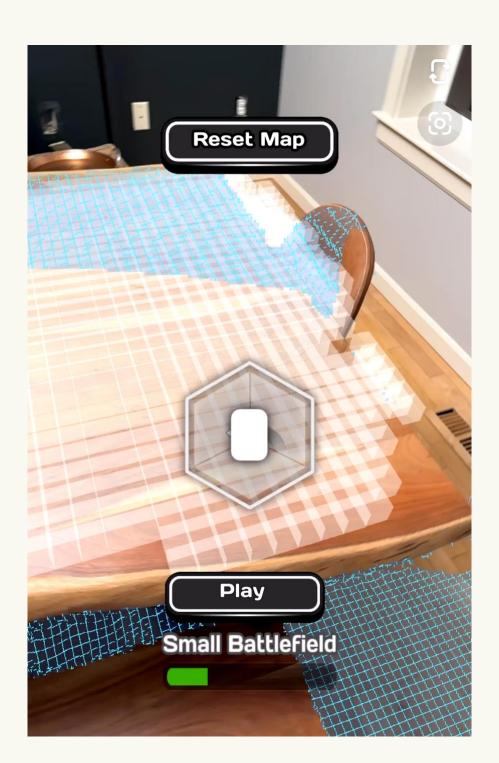




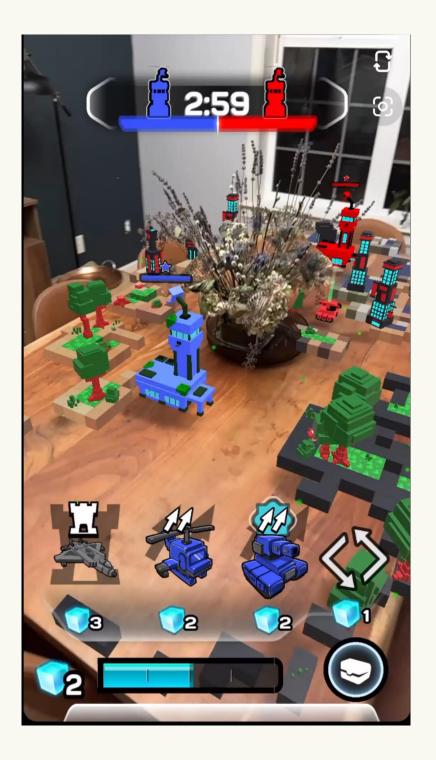




interest"



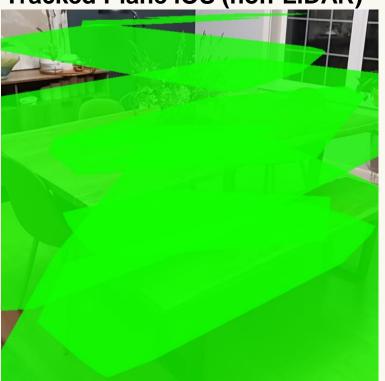








Tracked Plane iOS (non-LiDAR)



**Tracked Plane Android** 



**Meshing Non-LiDAR** 



**LiDAR Mesh** 





#### **External Tracking Points**

#### **User Created Tracking**



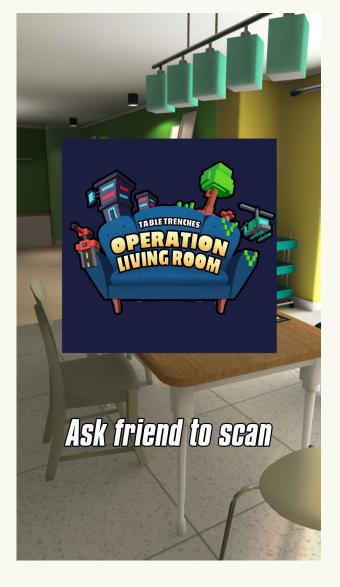
Connection without World Alignment



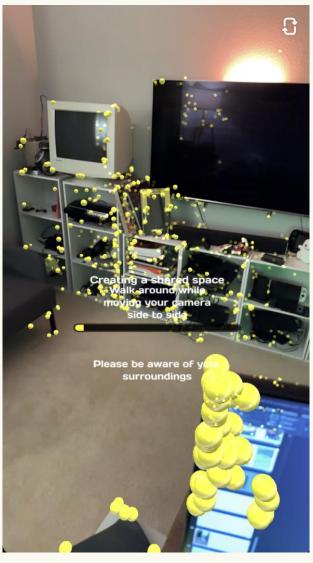
**External Marker** 



VPS (Visual Positioning System)



**Device Anchored Marker** 



"Co-located Tracking"

External Marker







**VPS** 

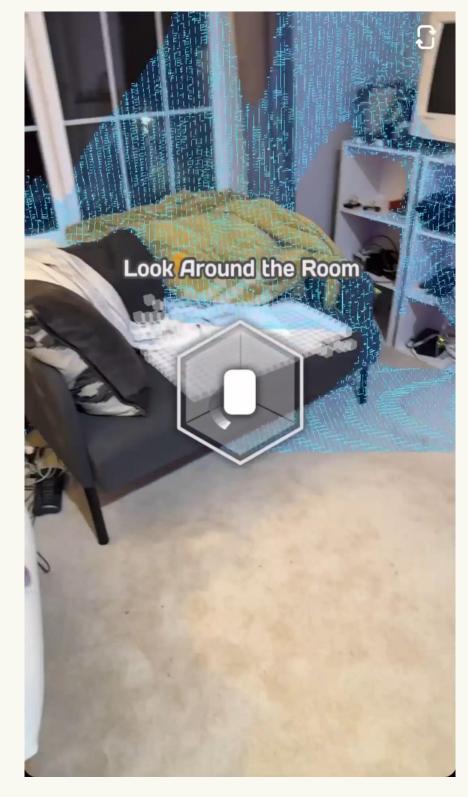


"Co-located Tracking"



**Setup time** 





**Host creates session** 



**Client joins session** 

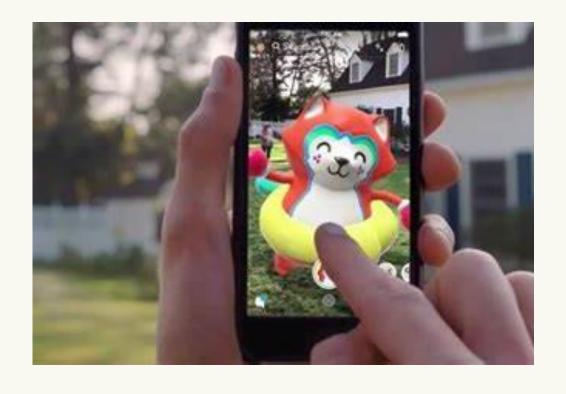


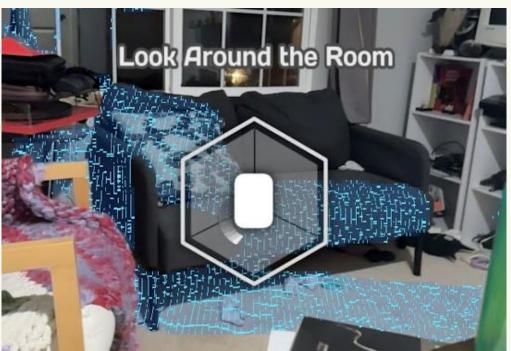
### Wrap Up

## Designing for a Mobile AR Audience

#### **Playspace Setup**

#### **Playing Together**





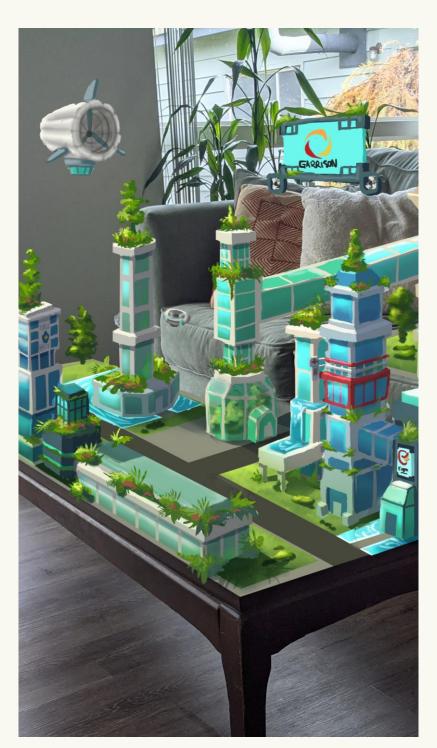


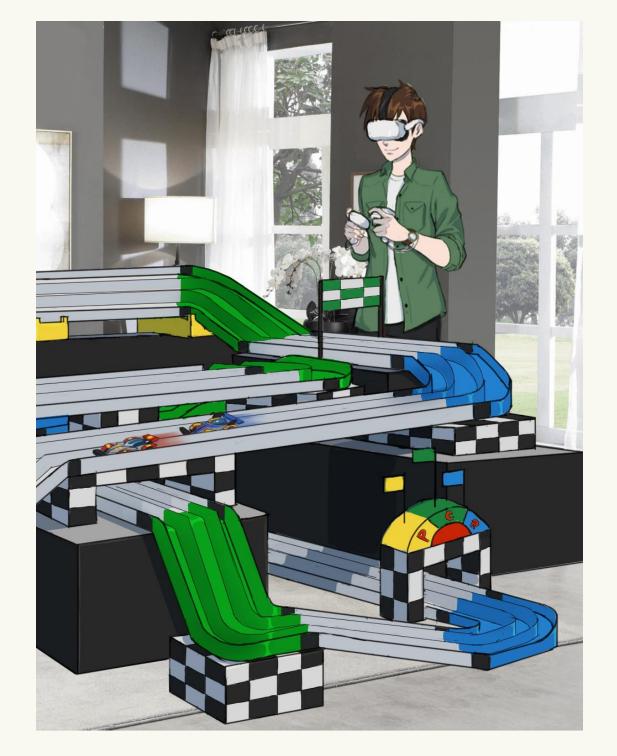
#### Park Scale

#### **In-World Ads**

#### **MR** and Passthrough









## Questions?

contact@dbcreations.studio

@CreationsDb

