

Table League AR

project by Lukas Bonauer & Ahnaf Munir
Augmented Reality Applications

Environment

- 2 Android phones
- Vuforia marker tracking



Gameplay

- play area: a table with a few markers on it
- 2+ game balls
 - need to be scored into goals
- 2 players
 - hit balls by moving close and tapping
 - build towers to defend your goal
 - collect power-ups
- play until time limit

Tower examples

- magnetic tower
- capturing tower
- bounce-back barrier
- slow-mo tower
- railgun tower

Power-up examples

- increased range when hitting ball
- grappling hook
- freeze ball from afar
- grant tower immunity to ball

Nice to have features

- option for markerless tracking (ARCore only)
- multiple gamemodes

Tracking

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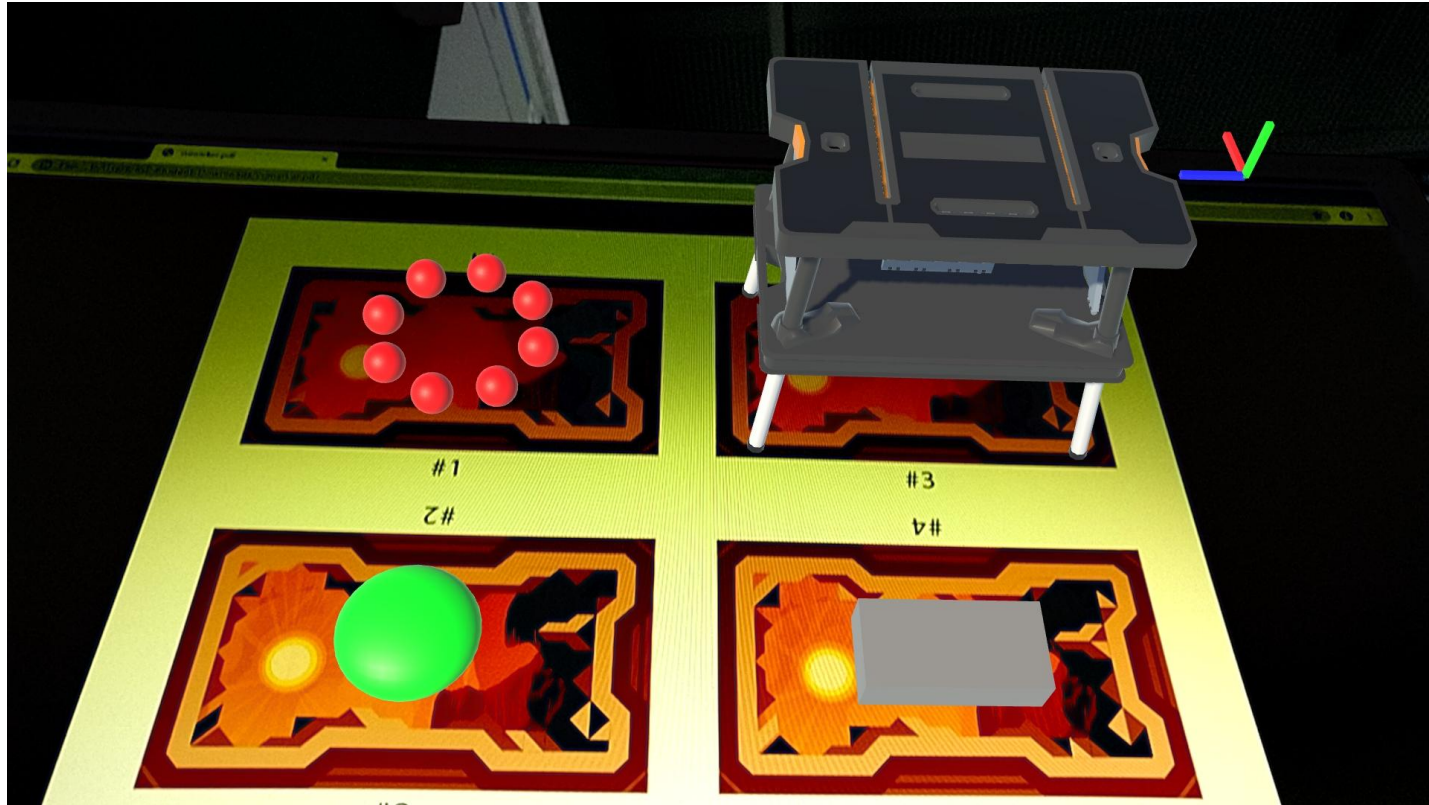
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Tracking



Potential issues

- players getting in the way of each other
 - maybe restrict interaction to your half of the table?
- fast-paced gameplay --> blurry tracking
- accidental movement of markers during the game

Timeline (1)

- tracking & marker registration (**2 weeks**)
- basic game logic (**1 week**)
 - ball interaction + goals
 - 2 tower types
 - simple visualization
- multiplayer (**2 weeks**)
 - host/join game
 - game state synchronization
 - shared tracking

Timeline (2)

- advanced game features (**3 weeks**)
 - power-ups
 - more tower types
 - better visual effects
- advanced environment setup (**1 week**)
 - UI for setting table size
 - marker movement detection
- testing & debugging (**1 week**)