forwARdgame
Senefelderstraße 16
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STACKAAR

Short description

STACKAAR is a multiplayer game with a unique gameplay.

Each player controls a robot. Robots need to collect cubes that hang around the play area and then bring the cubes to the furnace and melt them in order to create an Orb.

Collecting and handling the cubes is done by users physically moving towards a cube (the robot follows the movement) and guiding the robot close enough to the cube so the robot then picks it. Users can stack as many cubes as they can but it obviously becomes more and more difficult as the stack of cubes grows.

One point is awarded for each melted cube and an Orb is created – it gets stuck to the creating robot. The robot then can throw an Orb at his opponent. The throwing is done by performing a throwing movement with the phone. If an Orb hits the opponent robot, the attacker gets as many points as the number of cubes it took to create the hitting Orb.

STACKAAR is incredibly dynamic and fast. It is a true example of Active Augmented Reality.

Long description

In a distant future there is an Energy Orb Factory. You know what Energy Orbs are… everybody has an Energy Orb at home in the distant future. Of course, the factory makes two types of Orbs. The Blue department is responsible for Blue Orbs production, and the Red department – for the Red. The Blue department robots think the Red robots are lazy and clumsy. Red Robots think the Blue Robots are slow and sluggish. When robots from different departments meet, they almost always fight.
It is strictly forbidden to mishandle the Orbs, but sometimes the robots stay overtime and have a little Orb fight…

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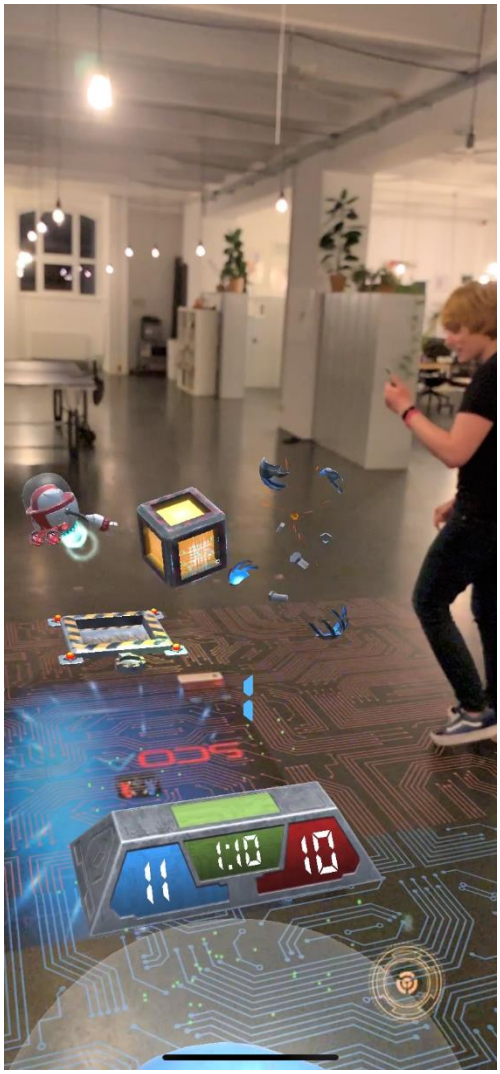

STACKAAR is a Multiplayer game with a unique gameplay. It is a duel between two players, each controls a flying robot. Each robot has his own play area and is not allowed to cross into the opponent area.
There are cubes that appear inside the play area and robots need to approach the cubes and collect them. This is done by users physically moving towards a cube and (the robot follows the movement) guide the robot close enough to the cube so the robot then picks it. Next the robot needs to bring the cube to a furnace (at the far side of his game area) and place it on the furnace doors. The player can choose to stack as many cubes on top of each other on the furnace door as they can (each cube is abit more than a foot high). The player can then tap a button and send the cubes into the furnace for melting, and this is how an Orb gets created.
For every cube melted the player gets one point. Orbs that comes out of the furnace get stuck to the robot; he can carry up to 3. The robot then can throw an Orb at his opponent. The throwing is done by performing a throwing movement with the phone. If an Orb hits the opponent robot, the attacker gets as many points as the number of cubes it took to create the hitting Orb.

STACKAAR is incredibly dynamic and fast. It is a true example of Active Augmented Reality. As in all of our games physical activity is an element of immersion, together with shared AR and physical presents of a live opponent, who acts on the virtual objects.

Before two players start the game, one more user can join in as spectator and view the drama in AR.
To play STACKAAR all you need is a well-lit free space and a game partner.
“The effect of “real” comes when you see your opponent’s face when you score”

Of course, we’ve added People Occlusion feature that makes STACKAAR so incredibly realistic.

To create STACKAAR we used ARKit 3.0, Google Cloud Anchors, MobiledgeX backend server solution, Unity AR Foundation Plugin.

Low latency

This is a real time multiplayer and it requires a very low and stable latency (up to 30 ms) in order to synchronise every action and movement of the players. This is why STACKAAR is an ideal candidate for showcasing 5G connectivity.

Both players and up to 5 spectators need to get every single change as frequent as 50 times per second.

Since players see each other physically in the real life - the digital sync needs to be perfect in order to preserve the immersiveness.

We've walked an extra mile to make this game feel as real as possible, with the physical game control and the realistic no-lag gameplay.

We see the low latency technology as a necessary enabler of this and many similar gaming experiences and look forward to improving them.

The Android-based implementation of the game is vulnerable to high latency caused by standard WiFi connectivity. Therefore, integrating an MEC solution, significantly improves the game experience.

We have a plan of using 5G technology for taking Shared AR further towards Remote Shared Active AR gaming, when people from different locations around the world, take part in experiences being represented to other participants as acting holograms, having their interactions with the shared game elements perfectly synchronized between all the players across vast distances.

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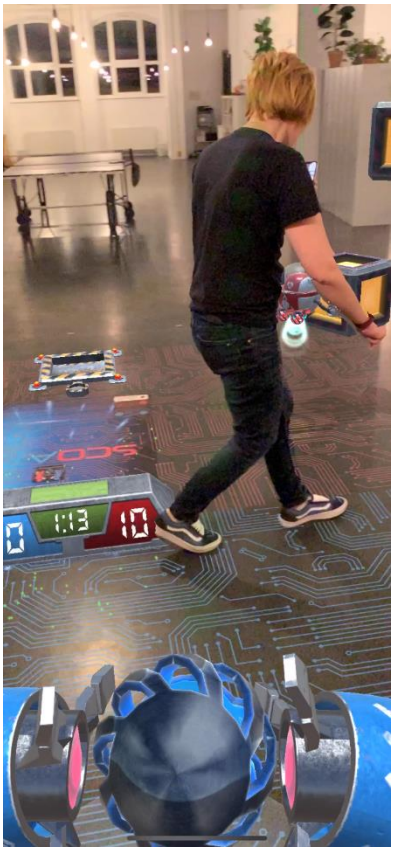
Idea



We envision games of the future to be played in the Real World. We believe the Augmented Reality eye-gear will soon become wildly available and we make our games having this in mind.

STACKAAR is an example of a Mixed Reality application, where the virtual world becomes a tangible part of the real world and the users interact with it the same way they would interact with physical objects.

This is why the game is controlled by the movements of the user in the real world, users need to move their hands and entire bodies fast in order to control their robot and his movements.
The challenge is to coordinate the movements, aim and position the body and the hand with the device. This unique gameplay creates an experience of stepping into the game, becoming fully immersed.

A natural benefit for the players is that STACKAAR makes them get active. It generates a highly competitive setup, proposing a seemingly simple yet very physical challenge.

Availability and localization

In the first version, it will support English only and will be available in USA, Canada, Germany and Japan.

Business model

Paid upfront for $4.99 or 4,19 €

Marketing

We are planning to start an ad campaign on YouTube and Instagram, Targeting 10-21 years old users in Western Europe, North America and East Asia. We are also planning a pre-launch event in Berlin and to partner with influencers' communities to help us promote the game.

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Our story

Our company's vision is to make young people more active by creating Active Mobile Games for them. We believe that kids are less active today only because they don't have enough active playing opportunities within their favorite gaming world – the mobile. We see it as our mission to use the tool that drew the young people away from actively playing together – to do the exact opposite and allow them to use their mobile devices for a much healthier playing.

forwARdgame is a gaming lab based in Berlin, making mobile games for different audiences, activities and locations.

We all really love sci-fi themed games and we love robots, so it was just a matter of time until we would make something like STACKAAR.

As we were brainstorming together, it seemed that very quickly the red and blue "robik guys" got a life of their own. We didn't even want them to shoot anything at each other, just to stack the cubes, but from session to session as if they pushed us to voice the idea of, well, food fight. So, we made it.

Links

https://drive.google.com/file/d/1brcnMMhBS1sa3Yo--mba6LLOruSXQNiP/view?usp=sharing

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