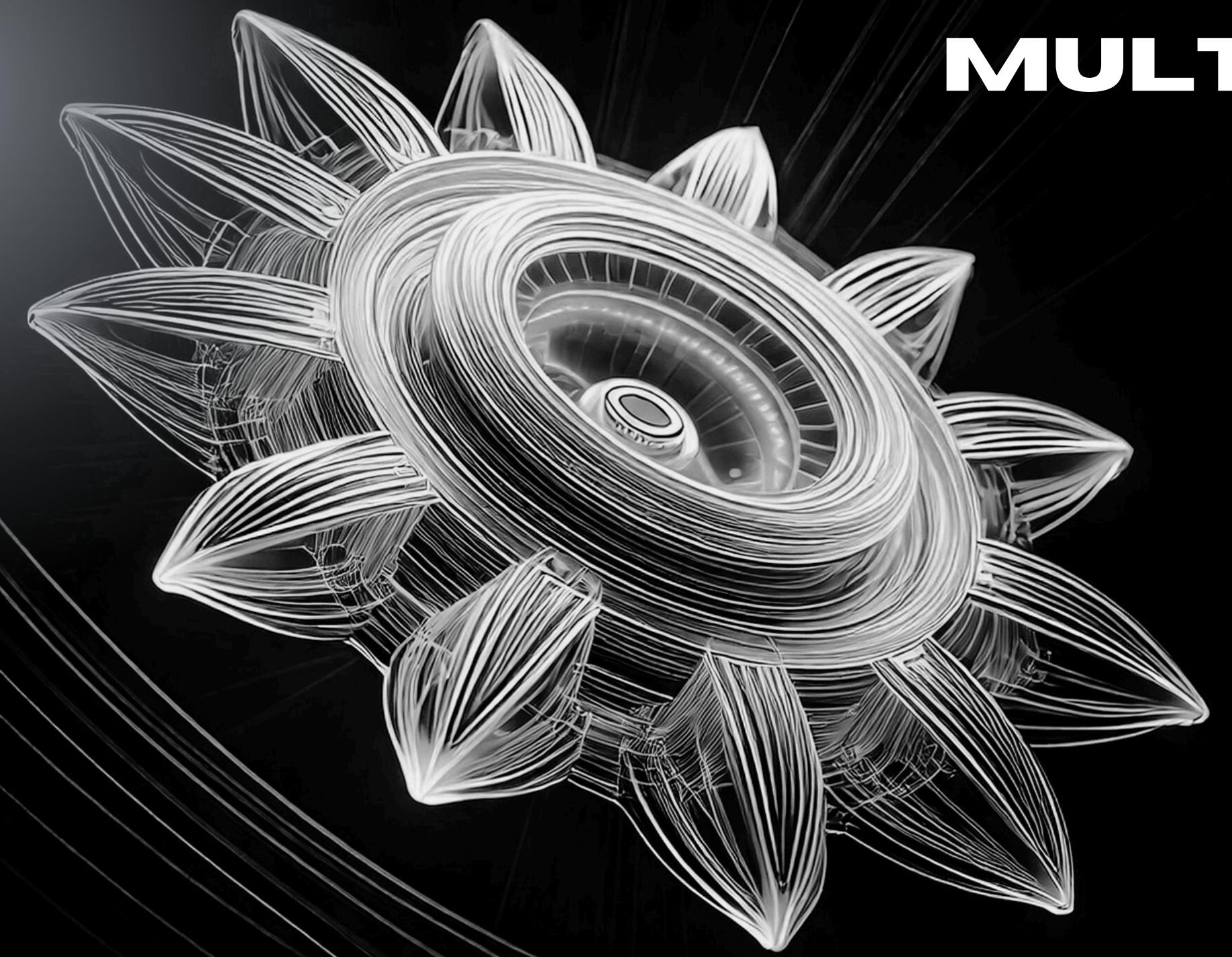


The background features a series of thick, white, wavy lines that resemble flowing liquid or dynamic energy. These lines are most prominent on the left side, where they form a large, looping shape that tapers towards the center. On the right side, the lines are more scattered and form a smaller, curved shape. The overall effect is one of motion and fluidity against a solid black background.

# **ERI PROJECT**

PRESENTATION



# BEYBLADE

## MULTIPLAYER AR GAME DEVELOPMENT

Building an immersive AR gaming experience with Unity and Photon

### Group Members :

- Devesh Hooda (22154)
- Sanyam (22447)

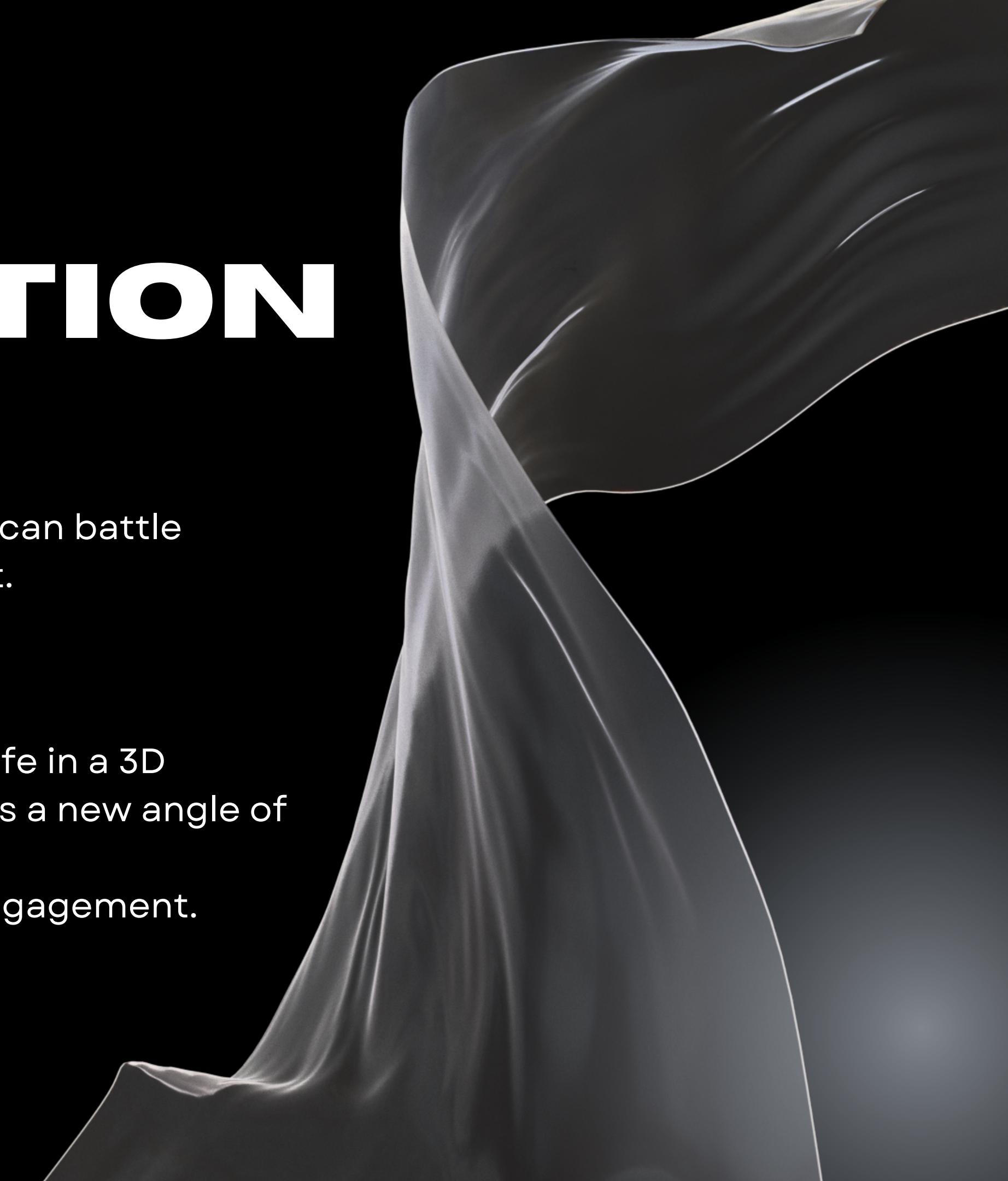
# INTRODUCTION

## **Objective:**

To create a multiplayer AR game where players can battle Beyblades in an augmented reality environment.

## **Why AR Beyblade?**

- AR brings the traditional Beyblade game to life in a 3D interactive format. VR already observed, thus a new angle of approach
- Multiplayer functionality enhances player engagement.



# GAME CONCEPT

**Core Idea :** Players launch and control virtual Beyblades on a real-world arena using AR.

**Gameplay :**

- Players aim to knock out opponents' Beyblades or outlast them in the arena.
- Multiplayer mode allows for real-time battles.
- Target Audience: Beyblade fans and casual AR gamers (**ages 8+**).

# TOOLS & TECHNOLOGIES

- **Unity AR Foundation:** For creating and integrating AR elements.
- **Photon Unity Networking (PUN):** Enables real-time multiplayer features.
- **Other Tools:** Online 3D assets , Unity's C# scripting for logic.

# GAME DESIGN

- **Arena:** A virtual Beyblade arena overlays the real-world surface.
- **Beyblades:** 3D models with HP (to simulate knockouts).
- **Physics:** Realistic spinning and collision dynamics for Beyblade battles.
- **AR Elements:** Players scan surfaces to set up the arena and initiate battles.

## **STEP-1**

Setting up Unity with AR Foundation for AR gameplay

## **STEP-2**

Using Photon for real-time multiplayer connection.

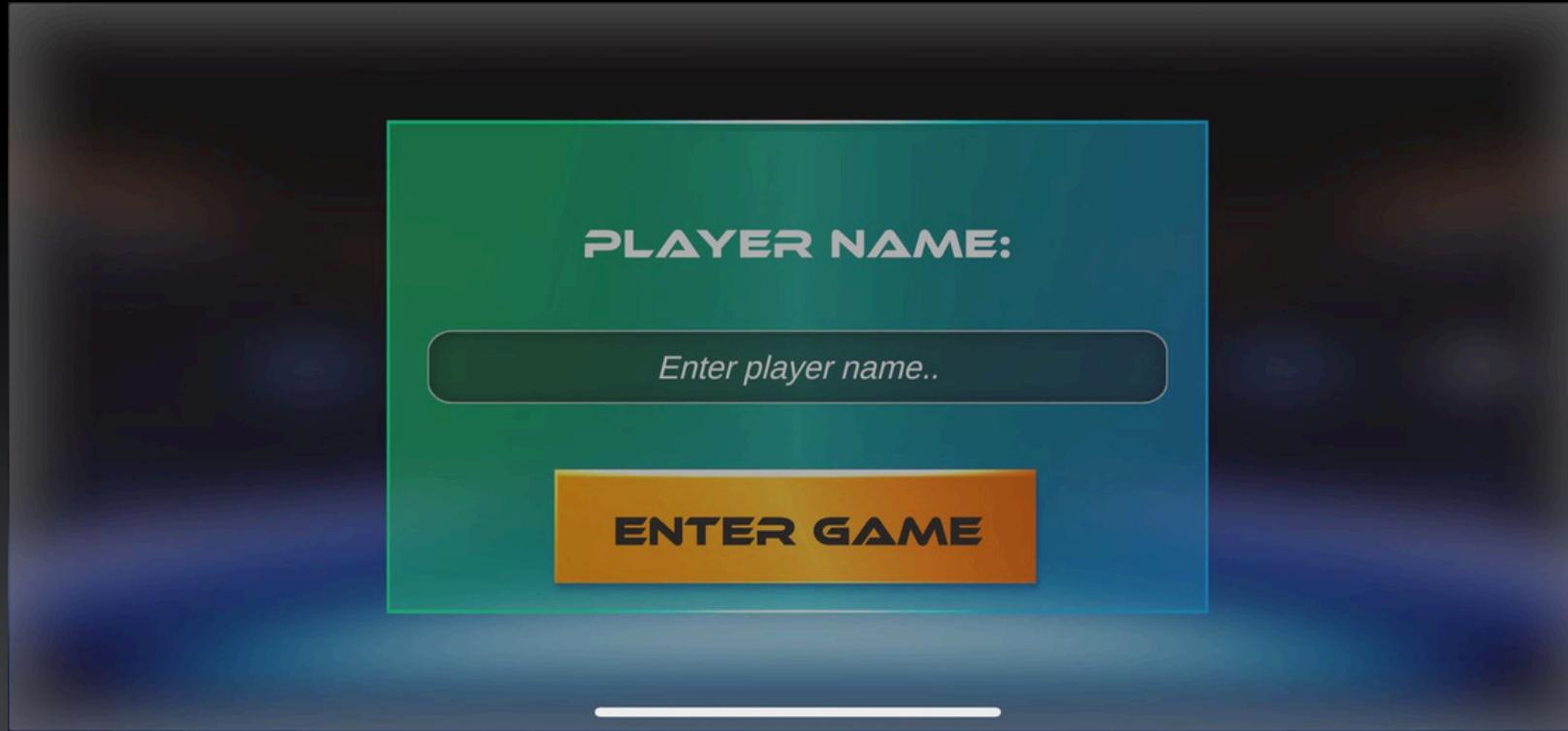
## **STEP-3**

Implementing game logic, physics, and collision mechanics.

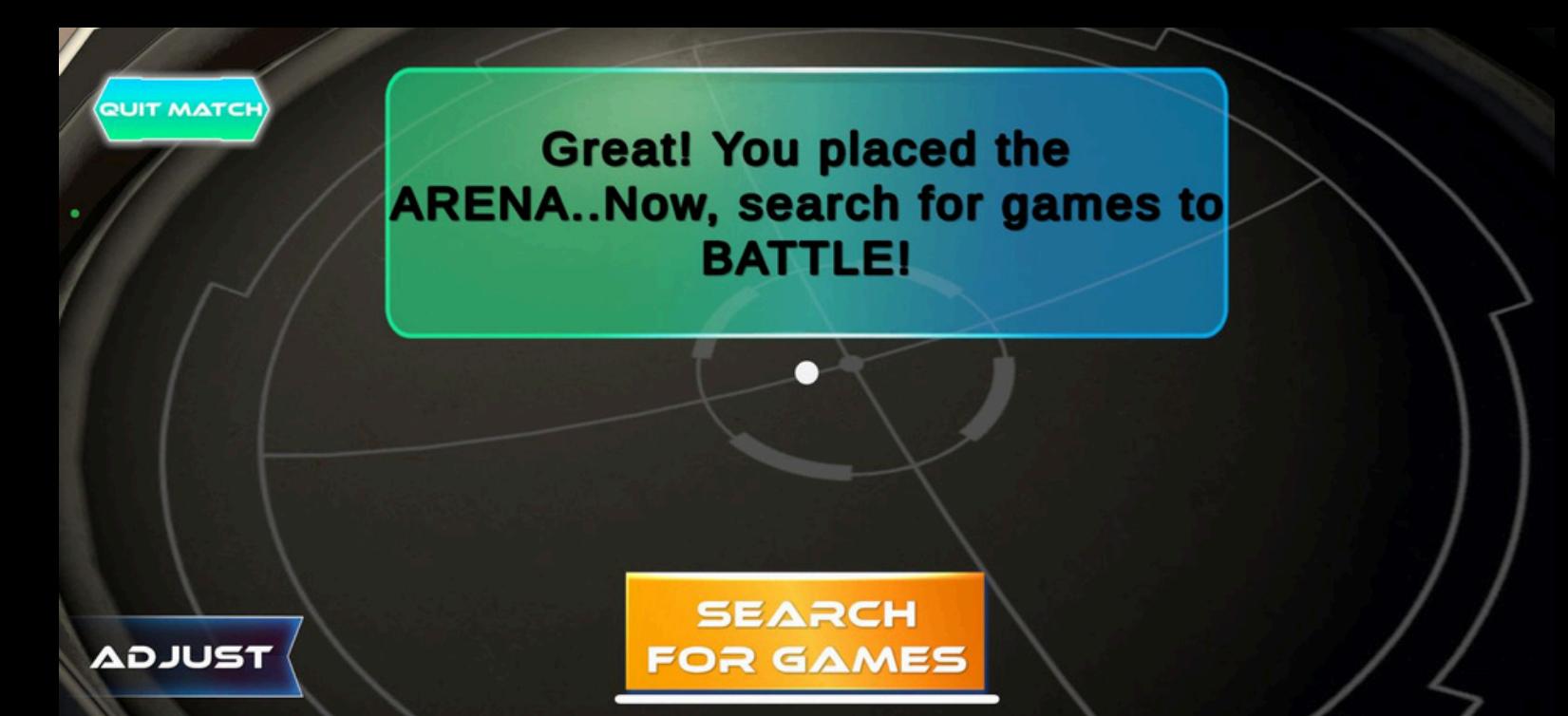
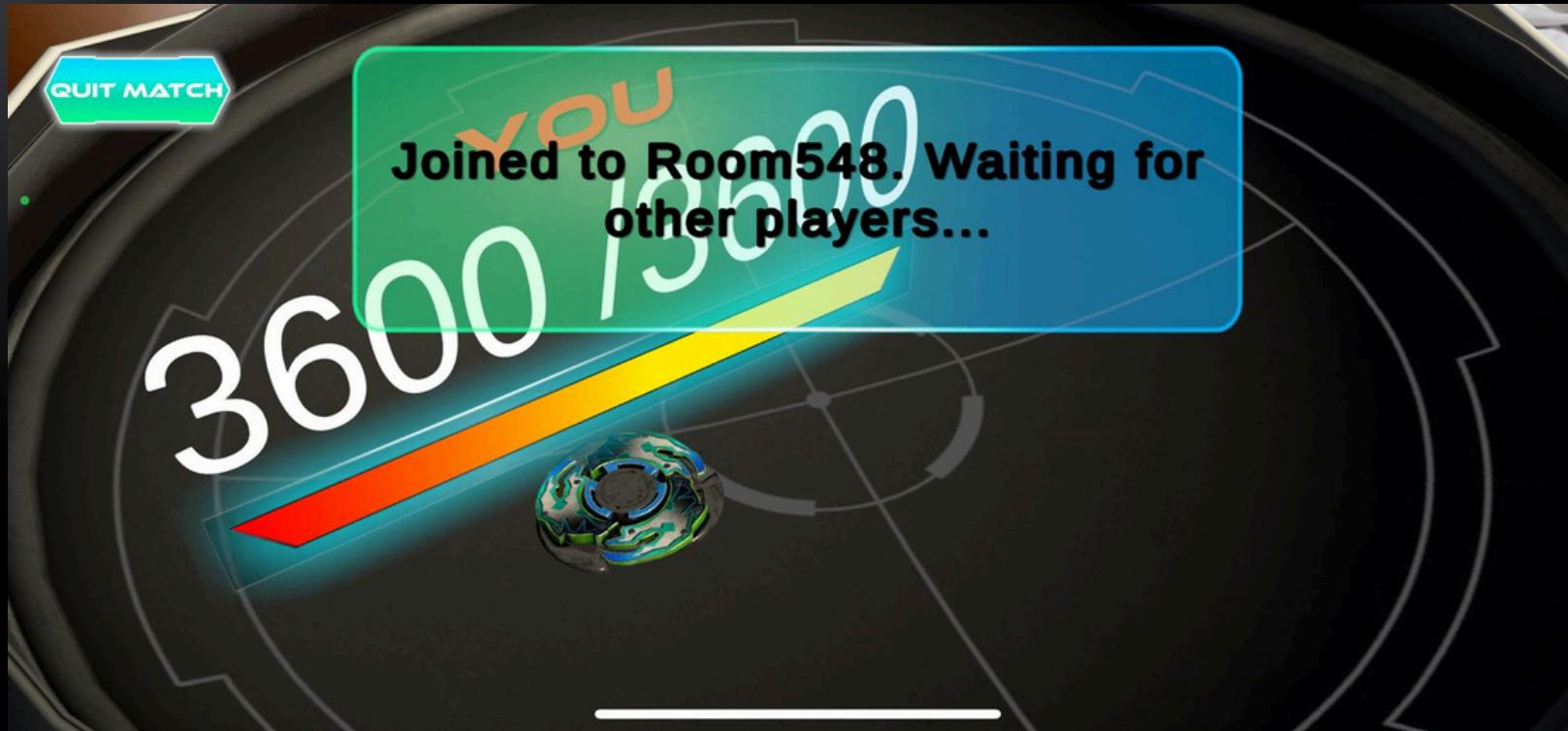
## **STEP-4**

Testing AR placement, interactions, and multiplayer sync.

# **DEVELOPMENT PROCESS**



# IMAGE LOBBY



# DEMO & FEATURES

- AR-based Beyblade arena.
- Real-time multiplayer battles.
- Customizable Beyblades with different stats and abilities.
- Realistic physics for spinning and collisions.

# CONCLUSION

**Key Learnings**

- Acquired skills in Unity
- AR Foundation
- Photon
- game design.



# THANK YOU

FEEDBACK AND QUESTIONS ARE WELCOME!