

# WIFI WARRIORS:

How Developers and  
Organizers Can Improve  
Upon Online Tournaments

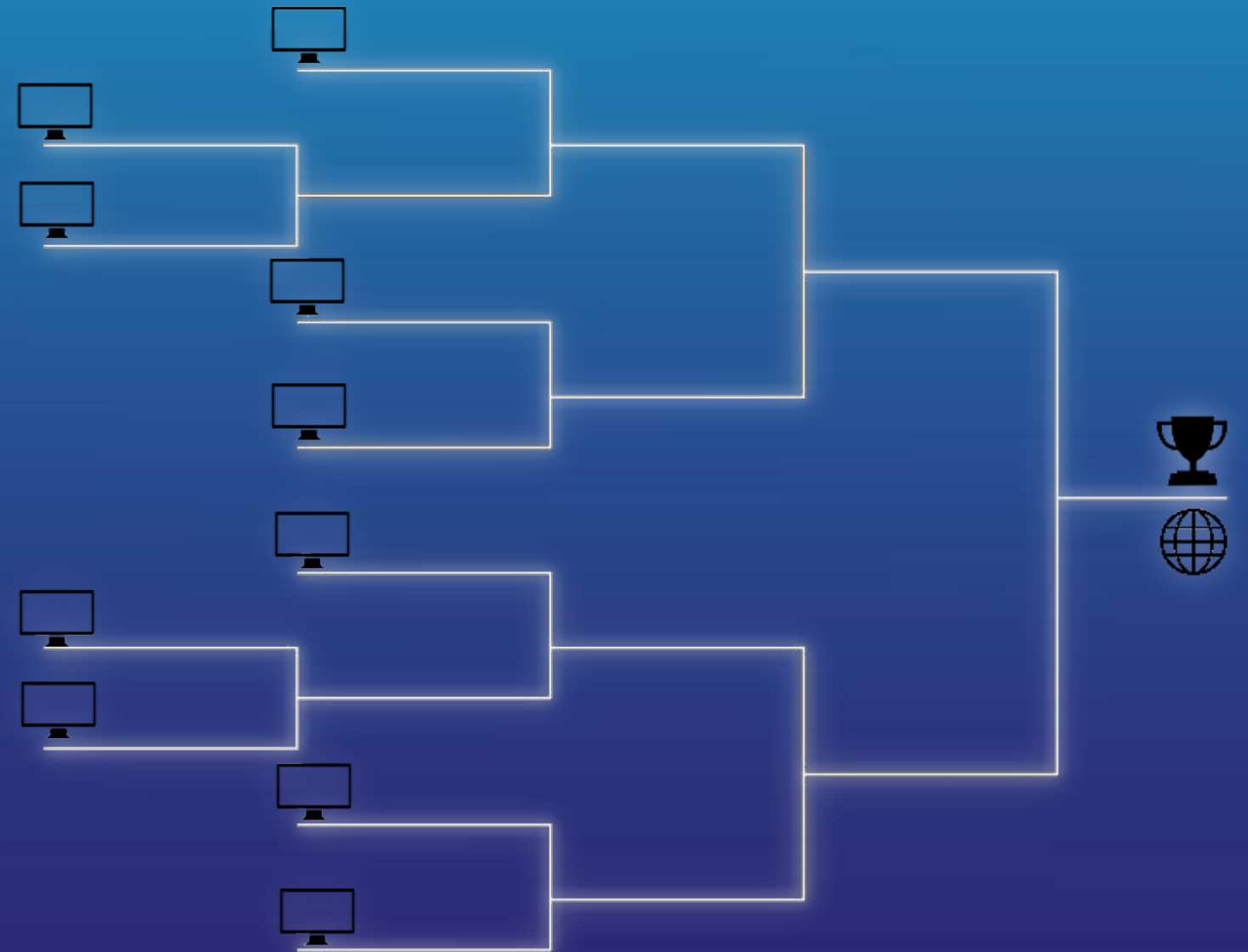
Ryan Stevenson

*Technical Designer at  
Super Bit Machine*

GDC 2019

# Overview

- Focus on spectator and player experience
- Case study of different genres and games
- How developers can keep the spectator experience in mind



# About Me

- Technical Designer at Super Bit Machine
- Varsity Smash Bros manager for USC
- Unity Affiliate



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1V1 GAMES

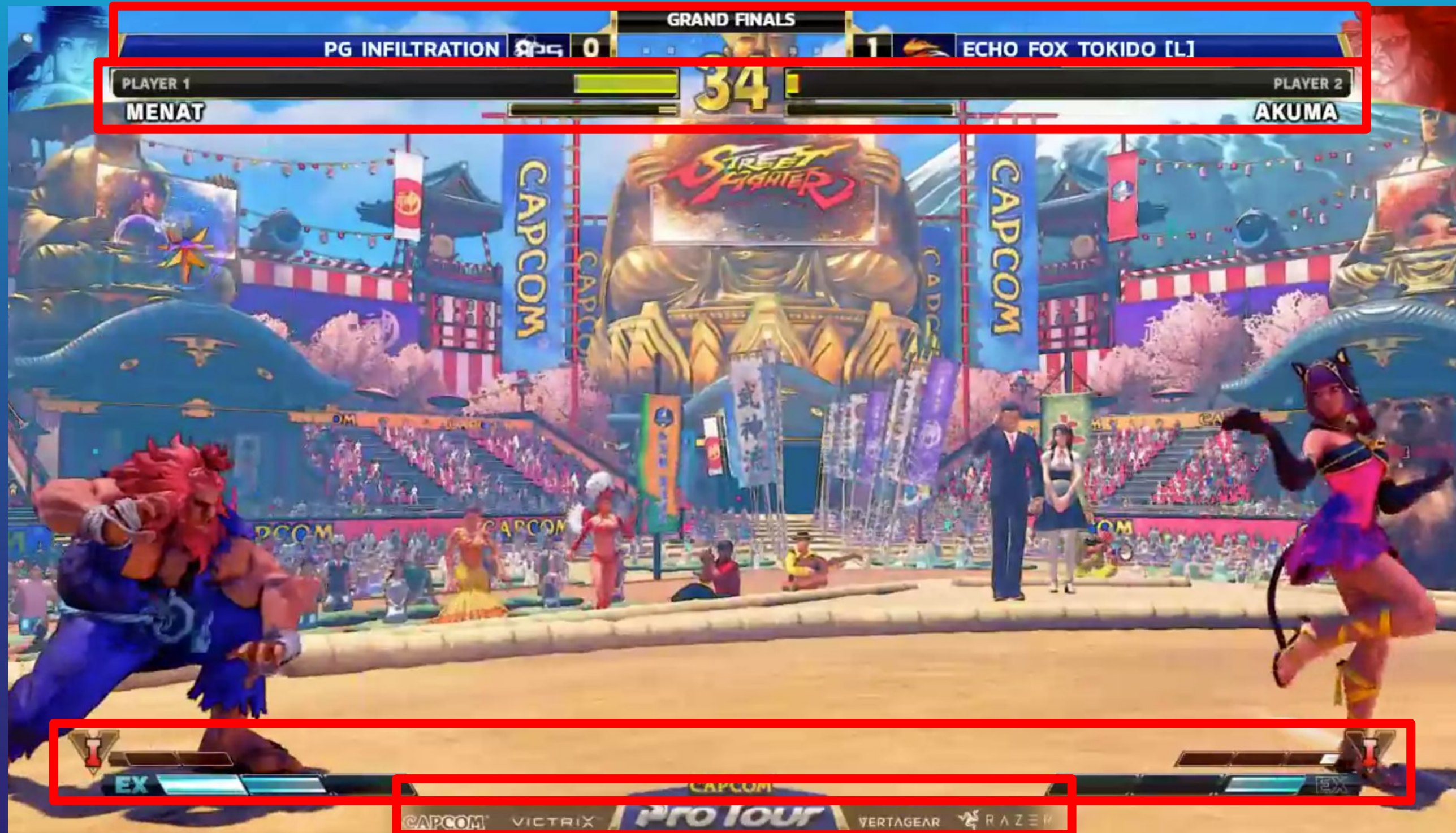


# 1v1

- How fighting games set a standard for spectating and streaming
- How online arenas can be used for online tournaments







FIGHTING GAME UI







CUSTOMIZABLE UI





CUSTOMIZABLE UI







ONLINE ARENAS

SUPER  
SMASH BROS.  
ULTIMATE



Round 1

Round 2

Semi Finals

Grand Final

Loser's Round 1

Loser's Round 2

Loser's Round 3

Loser's Final

Chat

Bracket

Connection

Yelsen17 / vs Notoriousalpha3  
Notoriousalpha3 advanced to the next round!  
Unable to connect to apit9090.  
Notoriousalpha3 wins by default.  
Notoriousalpha3 VS Trive-zero  
Notoriousalpha3 advanced to the next round!  
FyreNecromancer Umm..\_

Toggle Chat Log Display Menu Text Chat

Notoriousalpha3	8th kyu	EN
FyreNecromancer	2nd kyu	EN
Yelsen17	8th kyu	EN
Trive-zero	9th kyu	JA

# ONLINE BRACKETS





# Online Tournament Loop

System schedules  
a time for Players  
to play their  
match



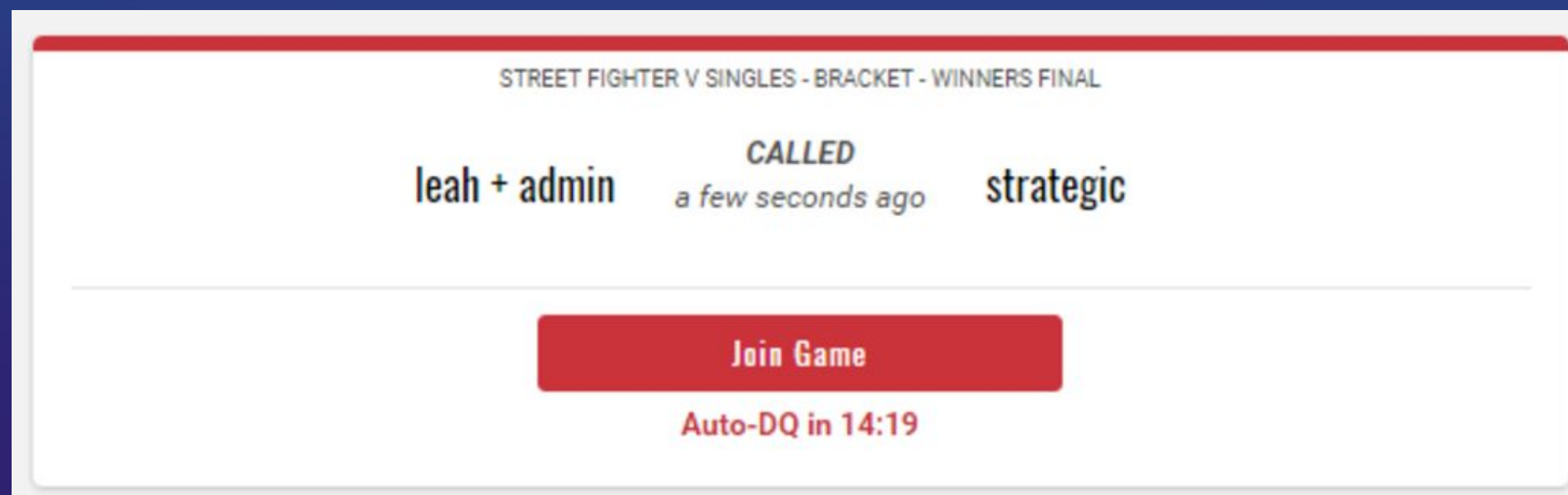
Player 1 checks in  
(hopefully player  
2 as well)



The Match  
is Played



Players report  
score and move  
on in bracket



# Online Tournament Setup

- **Smash.gg**

Allows for creation of lobby codes/passwords

- **Discord**

Have lobbies for text/voice chat so players can create their own lobbies/invite each other

Have the host request to spectate the game for the stream

- **Twitch**

The host can view a tournament match to commentate on while all other matches are being played

The screenshot displays the Smash.gg tournament interface for a match between 'test1' and 'test11'. The header shows the match title 'test1 vs test11' and a close button. Below this, the tournament details are listed: 'Street Fighter V Singles - Bracket 1 - Pool 1', the date and time '2/1/2017 - 2:08 PM PST', and the round 'Winners Round 1'. The score is 'test1 0 0:07 0 test11'. There are tabs for 'REPORT', 'CHAT', and 'MODERATE'. A dropdown menu shows 'View tasks for: test11'. The main content area includes a 'Check in' button with a 'COMPLETE' status, a 'Join the game lobby' button with a 'PRIVATE MATCH HELP' link, and a message: 'Your opponent is setting up a lobby. Join the lobby and then click done.' Below this is a note: 'No CFN ID found, please coordinate in chat' and a 'Done!' button. At the bottom, there are buttons for 'Game setup 1', 'Report game 1', 'Report game 2', and 'Verify match results'.



naito @ night



ON THE  
MIC!

@NairoMK



NAIFU NATION 4431

NEW NAIFUS 24

STREAMERS BROADCAST





PUBLISHERS  
FORMAT

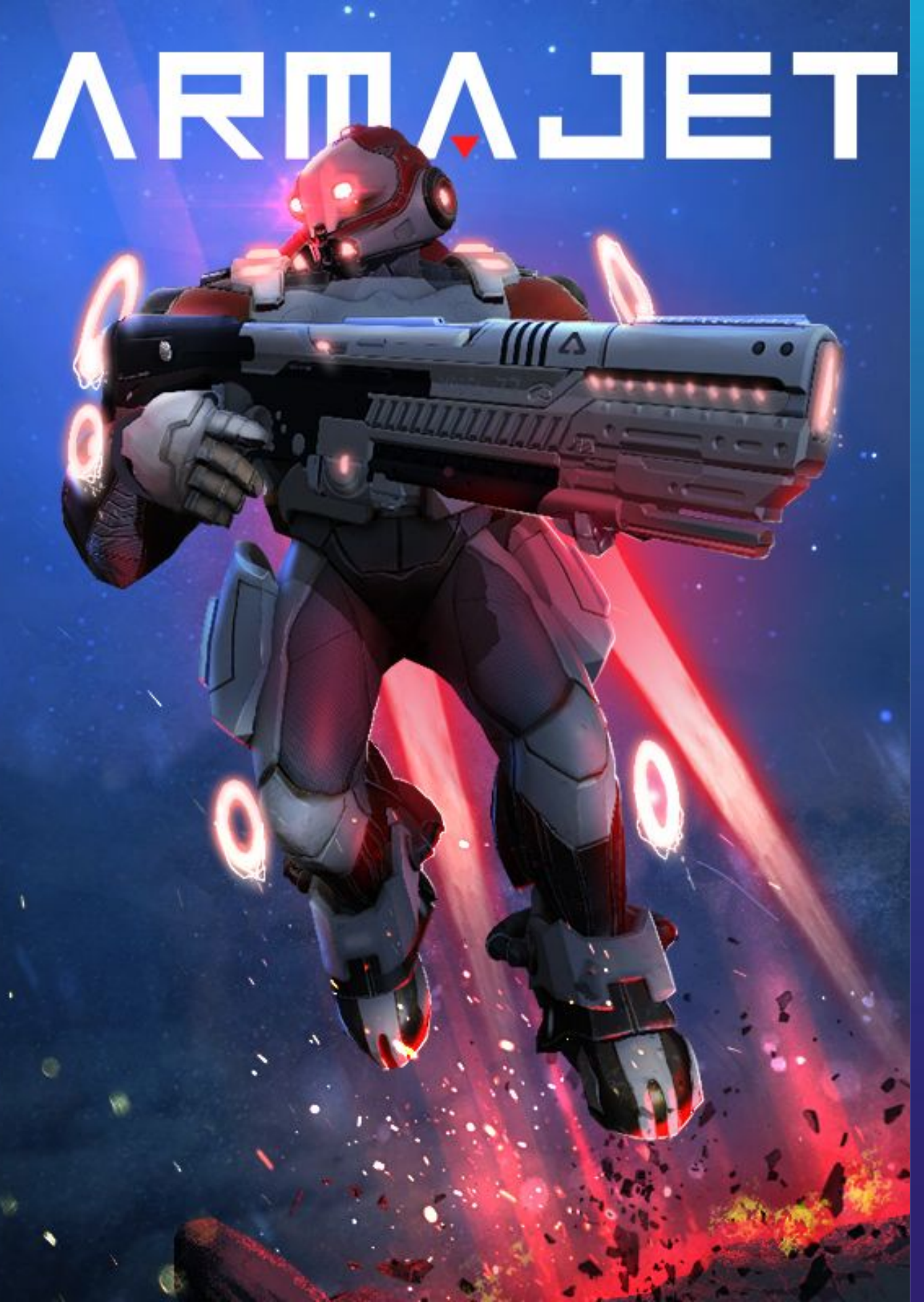


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# Case Study: Super Bit Machine

# Armajet

- How do we let our communities shape tournaments?
- How can we use features in AAA games to create our own tournaments?







ARMAJET UI





UNIVERSAL EXPERIENCE







CUSTOMIZABLE UI







FAMILIAR UI



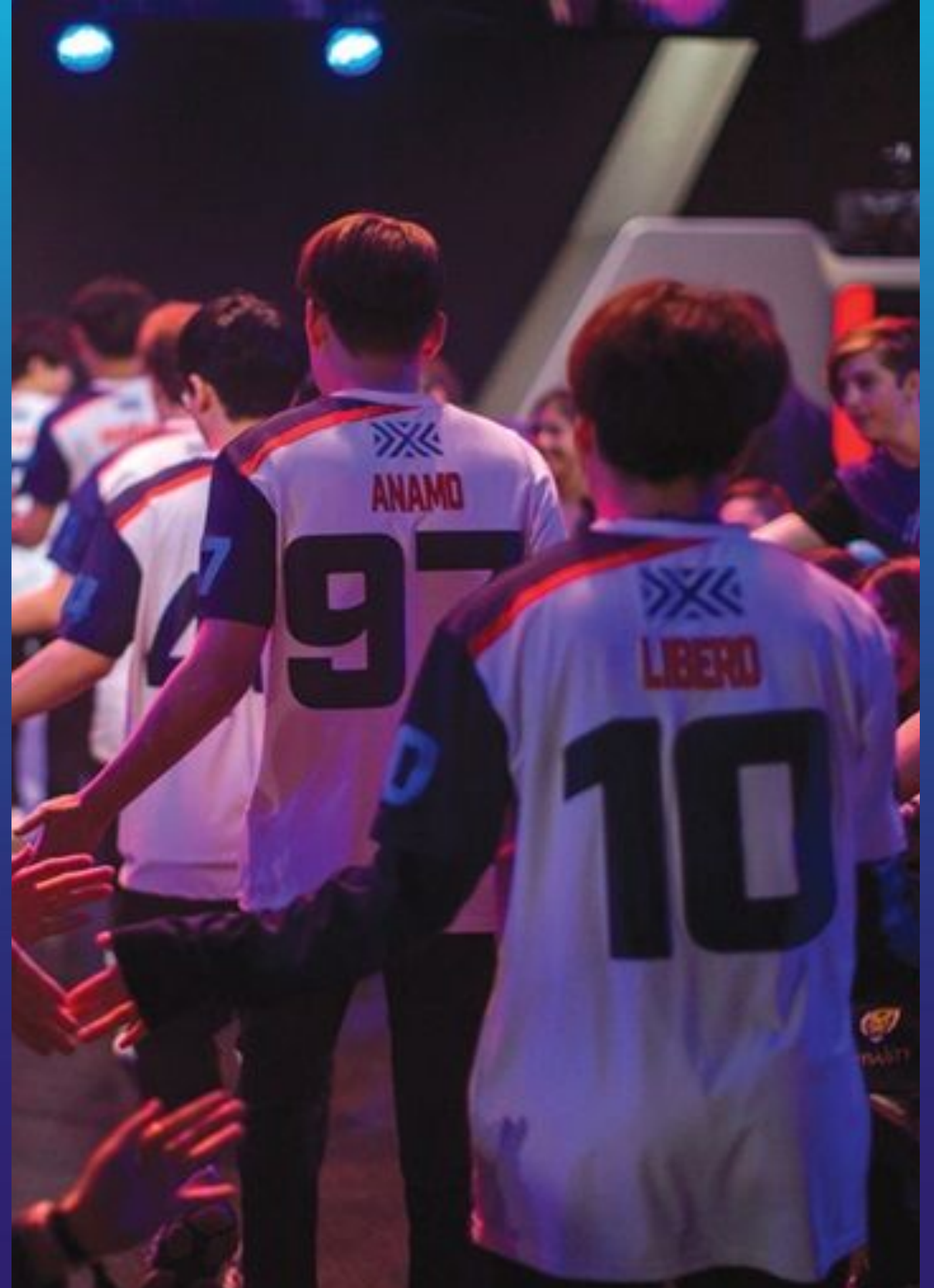


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# TEAM-BASED GAMES

# TEAM-BASED

- How do we account for multiple plays going on at once?
- How do we display just the right amount of info?







DIFFERENT PERSPECTIVES



# CAMERAS



## Focus Cam

- Attaches to a player's view
- Lets the audience see what the pros see
- Can be very disorientating with high sensitive movement



## Free Cam

- Controlled by a spectator
- Allows to see all the action at once

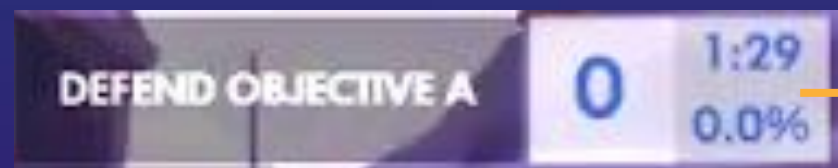


## Hotspot Cam

- Placed in choke points where action usually is
- Predicts where action should be quick cuts to great plays
- Can be hard to guess on open maps



# INFO DISPLAYED



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# BATTLE ROYALE GAMES



# Battle Royale

- How can we account for hundreds of players and multiple hot spots on an open map?
- How can we create a unique experience from 5v5 games?





# Massive Scale

- 100 possible player cams
  - (This diminishes over time)
- Huge, open arena







NUMEROUS HOTSPOTS





NEWSCASTING





TOURNAMENT LIVE

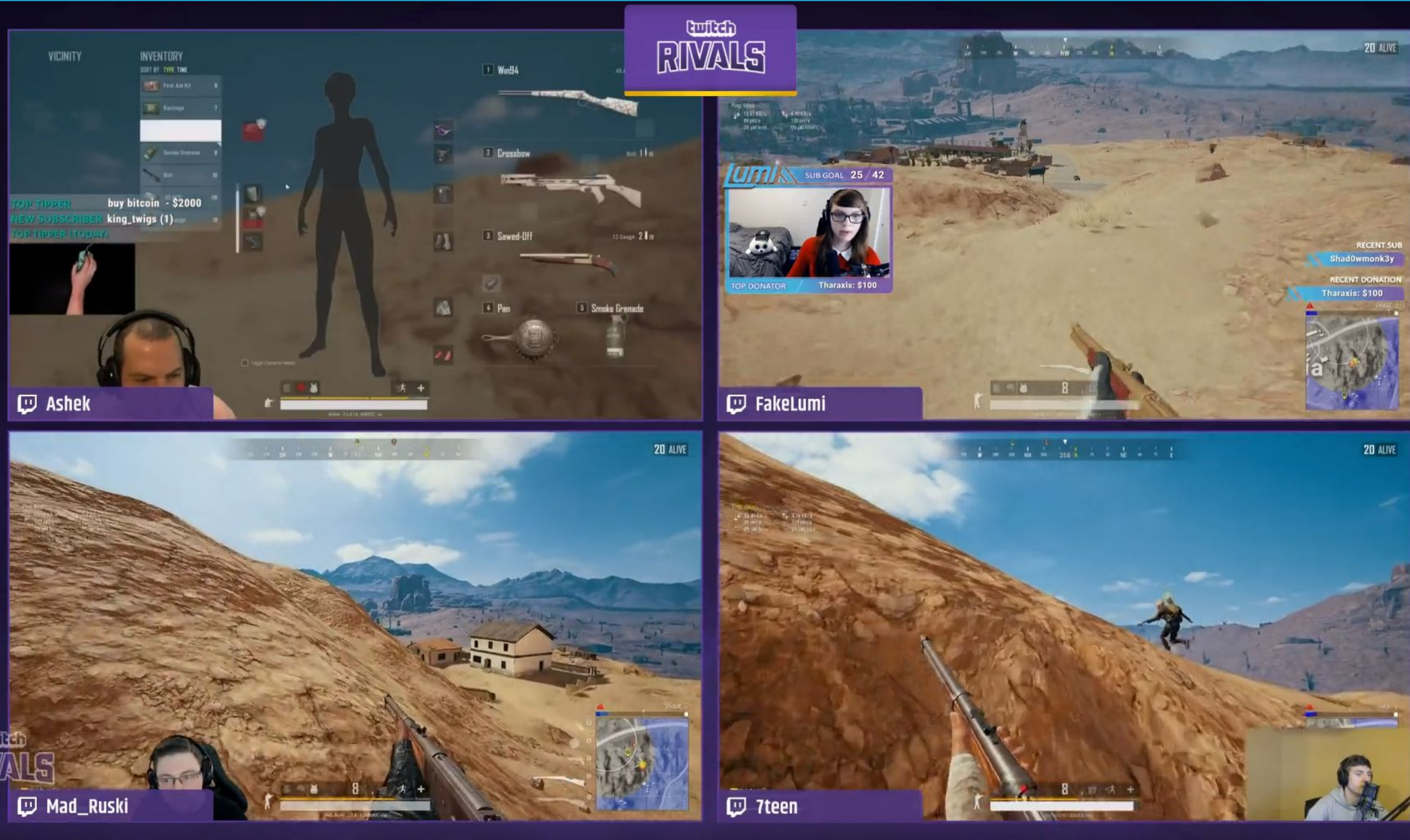




MINIMAL DISPLAY

PLAYERUNKNOWN'S  
BATTLEGROUNDS



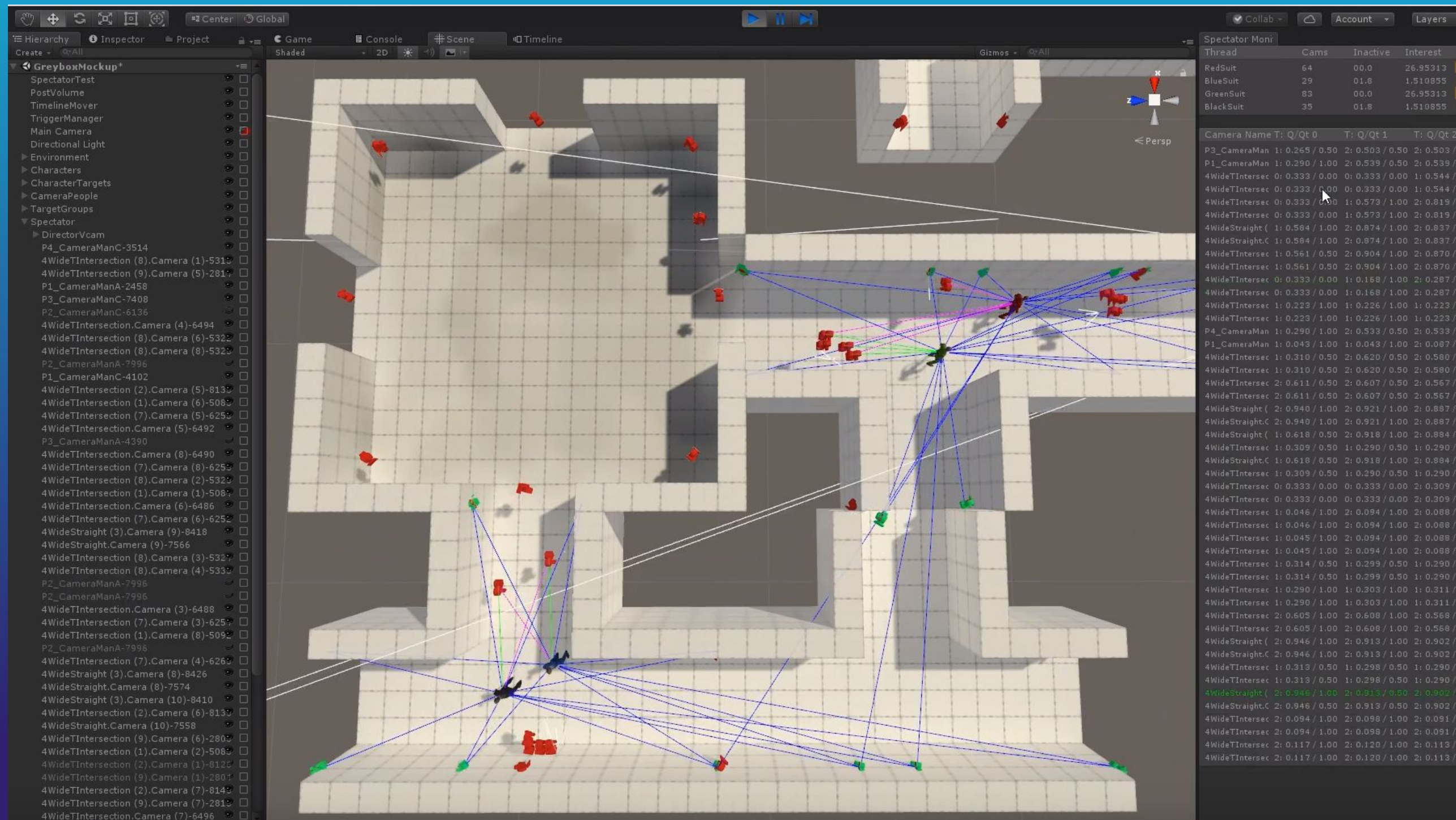


TWITCH RIVALS

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## 3D INDIE GAMES





# 3D INDIEGAMES



# UNITY CINECAST

- Focus cams and free cams
- Parameters for calculating interesting shots
  - Multiple Players?
  - Loud Sounds?
  - Enemies?
- Spectator can point to all players and 5 interesting shots at any time



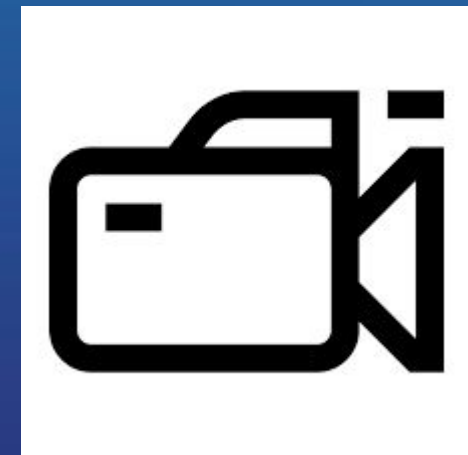


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**SUMMARY**

# SPECTATING TOURNAMENTS

- **Cameras**
  - Add systems for multiple types of cameras
  - Dramatize effects for spectators
- **Customize**
  - HUDS should take into account multiple types of stream overlays
- **Lobbies**
  - Players should be able to easily invite each other and spectate matches





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QUESTIONS?