

# StarCraft II and GameHeart

## Evolving eSports Interfaces with Modders

**Ryan Schutter**  
Team GameHeart

**Philip Tan**  
MIT Game Lab

**Jordan Womack**  
Blizzard Entertainment



GAME DEVELOPERS CONFERENCE NEXT  
FEATURING APP DEVELOPERS CONFERENCE  
LOS ANGELES CONVENTION CENTER, LOS ANGELES, CA  
NOVEMBER 14, 2014









Costume Quest 2

6,085 viewers



Vertiginous Golf

4,870 viewers



Town of Salem

1,927 viewers



Clash of Clans

1,297 viewers







# Your Speakers

Jordan Womack

Producer, StarCraft II & Heroes of the Storm

Ryan Schutter

Lead Developer, GameHeart

@rtschutter

Philip Tan

Research Scientist, MIT Game Lab

@djphiliptan





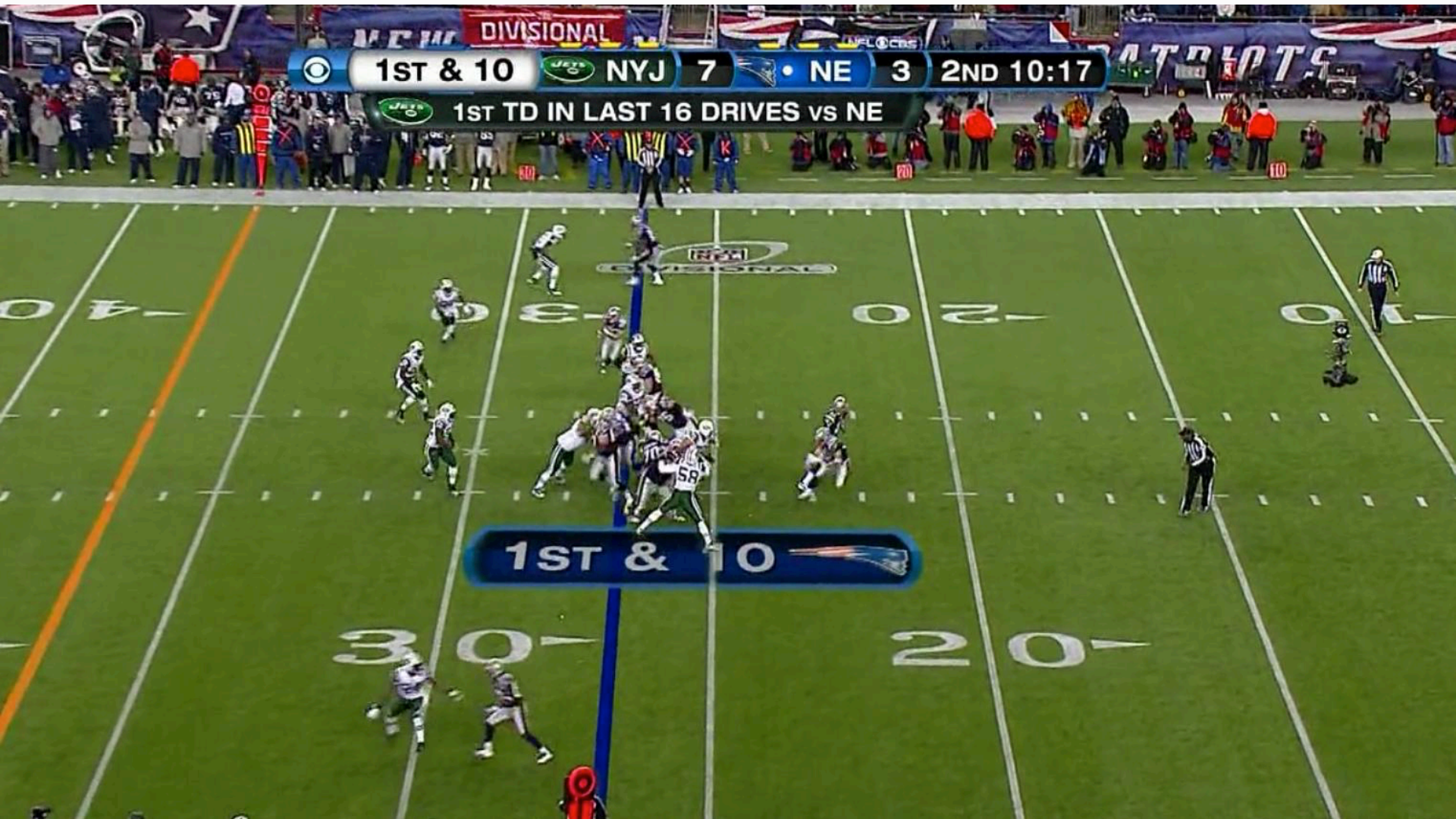
# 'Native' form of watching a game







# Broadcast experience







# Impact of crafted experience



# Giving tools to the community

How it works for  
StarCraft II

Guidelines behind  
our feature set

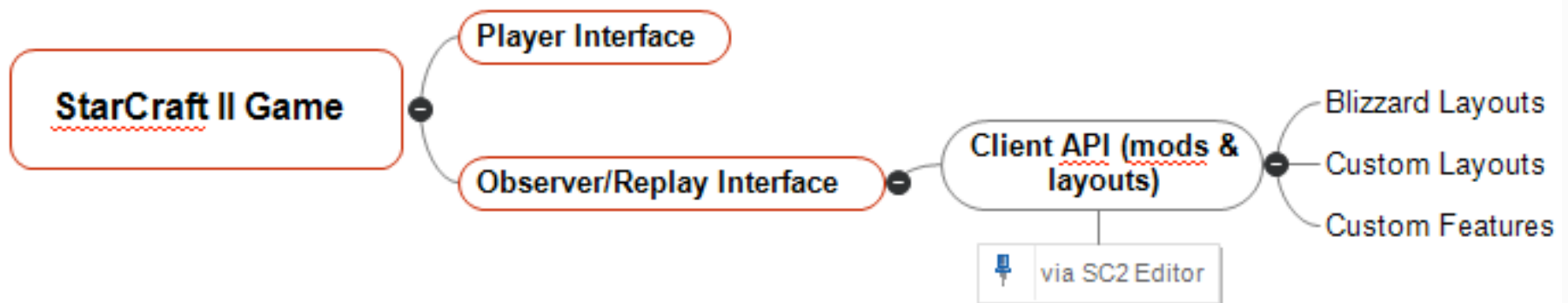






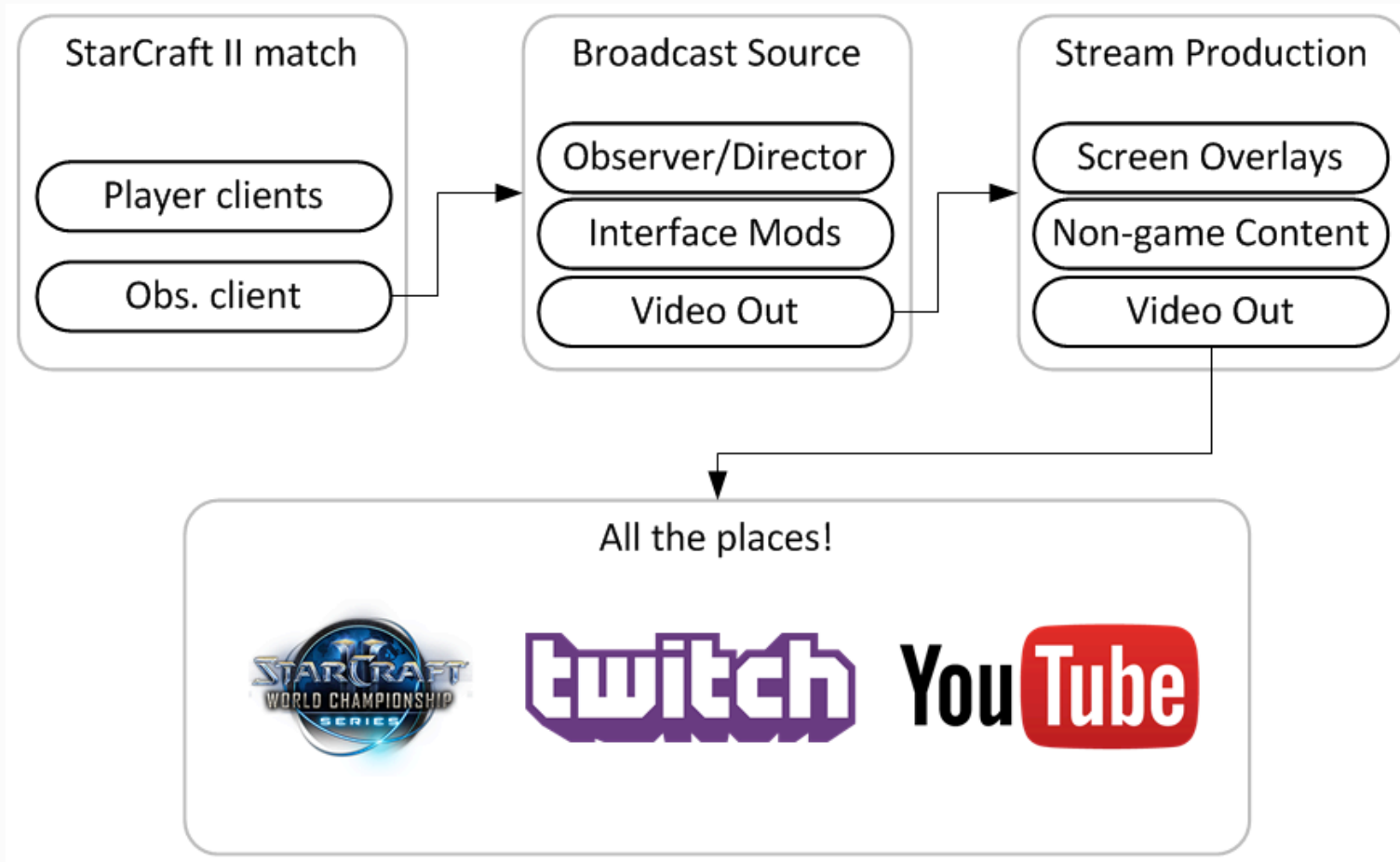
# StarCraft II custom interface

Mods as “API” for the observer interface





# How a broadcast is made





# Keep the competition pure

No possible cheating or  
*perceived* advantage

Ensure stability







# Community drives the content

People on the ground know what they need

Community can take more risks

They are legion!





# Taking the long view

Eternal leapfrog

Absorb proven features

*(gg Blizz, took you long enough)*





# Recap

## How StarCraft II customization works

- Mods as "API" for interface
- Broadcast is many layers from game to stream

## Key ideas for StarCraft II

- Keep competition pure & reliable
- Community drives the content
- Neverending tech leapfrog
- Absorbing proven features









# eSports Productions







# WoL broadcasting (Q3 2012)







# HotS broadcasting (Q3 2013)

**Production (D)** [WWW.SC2L.GG](http://WWW.SC2L.GG)

1	Team Liquid	ShinyThings	Liquid 'Ret	38	184	59/78
2	Root Gaming	dasKeyboard	ROOT.theognis	285	193	50/54

**SC2L PRIZE POOL** \$10,000

**END GOAL \$20,000**

**PRE-ORDER THE D-LINK GAMING ROUTER TO INCREASE SC2L'S PRIZEPOOL**

**MORE INFO AT SC2L.GG**

**Tech Lab**

**400/400**

**Armored-Mechanical-Structure**

**BILZARD ENTERTAINMENT**





# Early GameHeart User Interface







# GameHeart UI Example







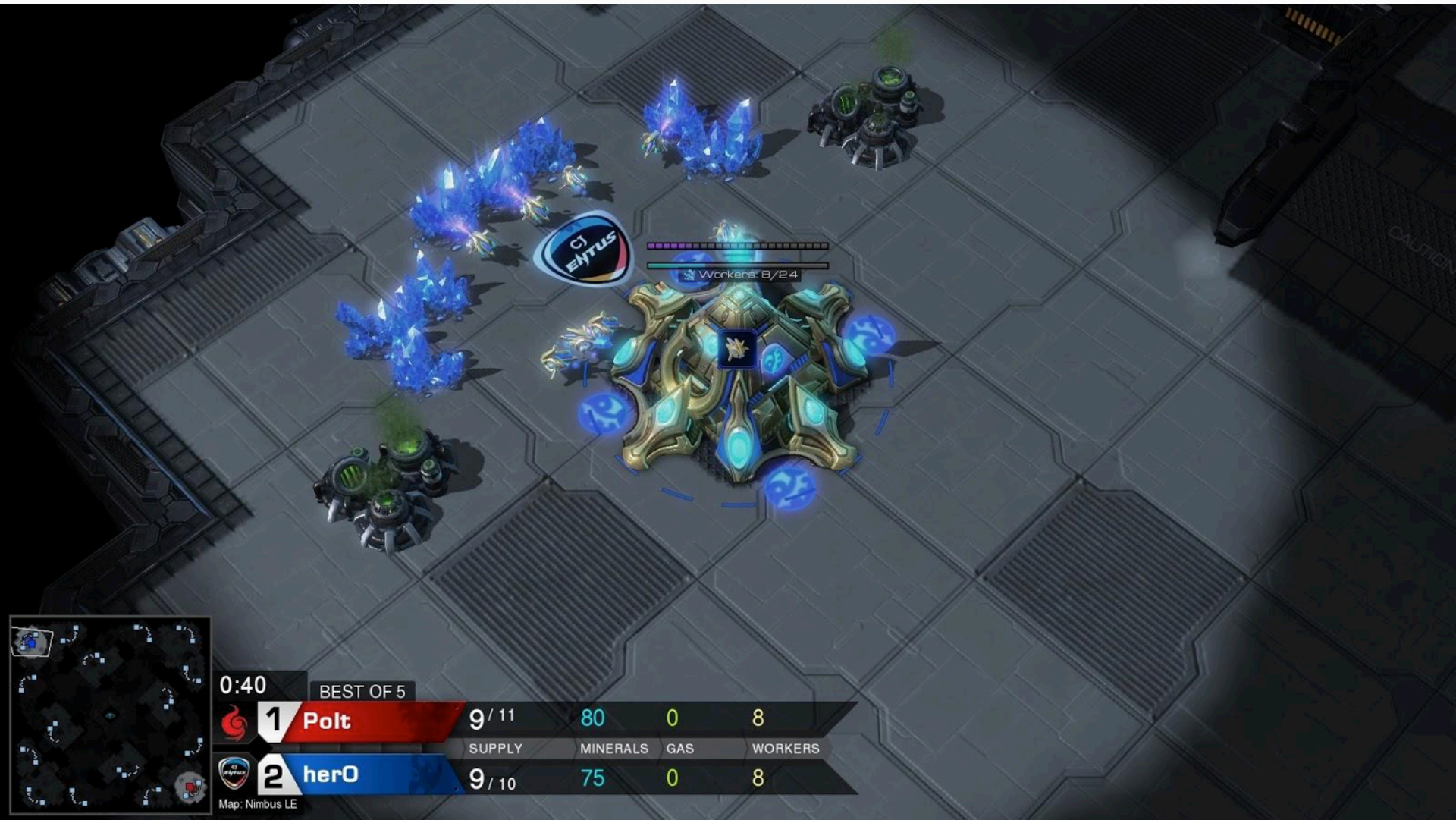
# WCS UI Example







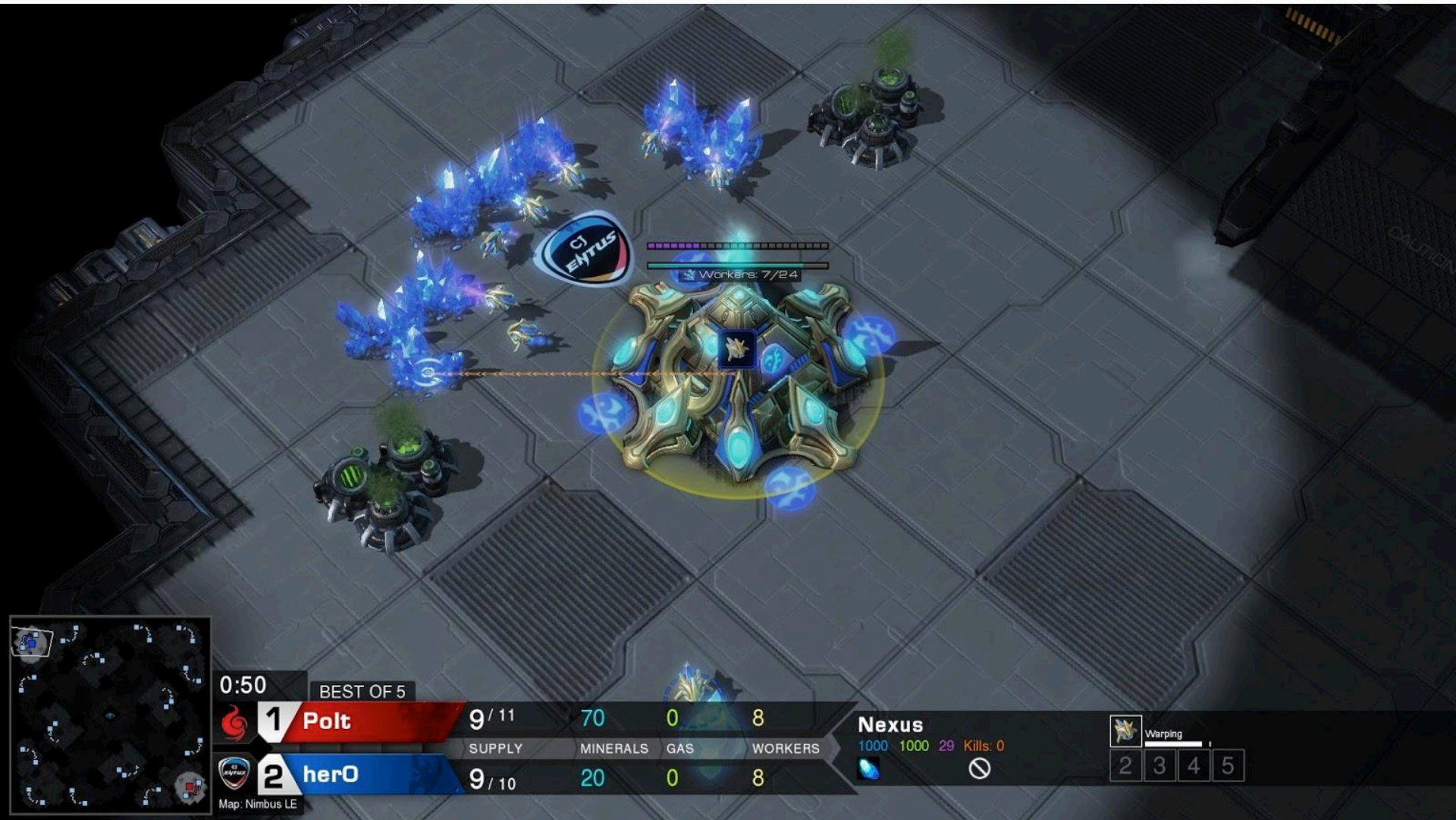
# WCS UI Modules







# WCS UI Modules





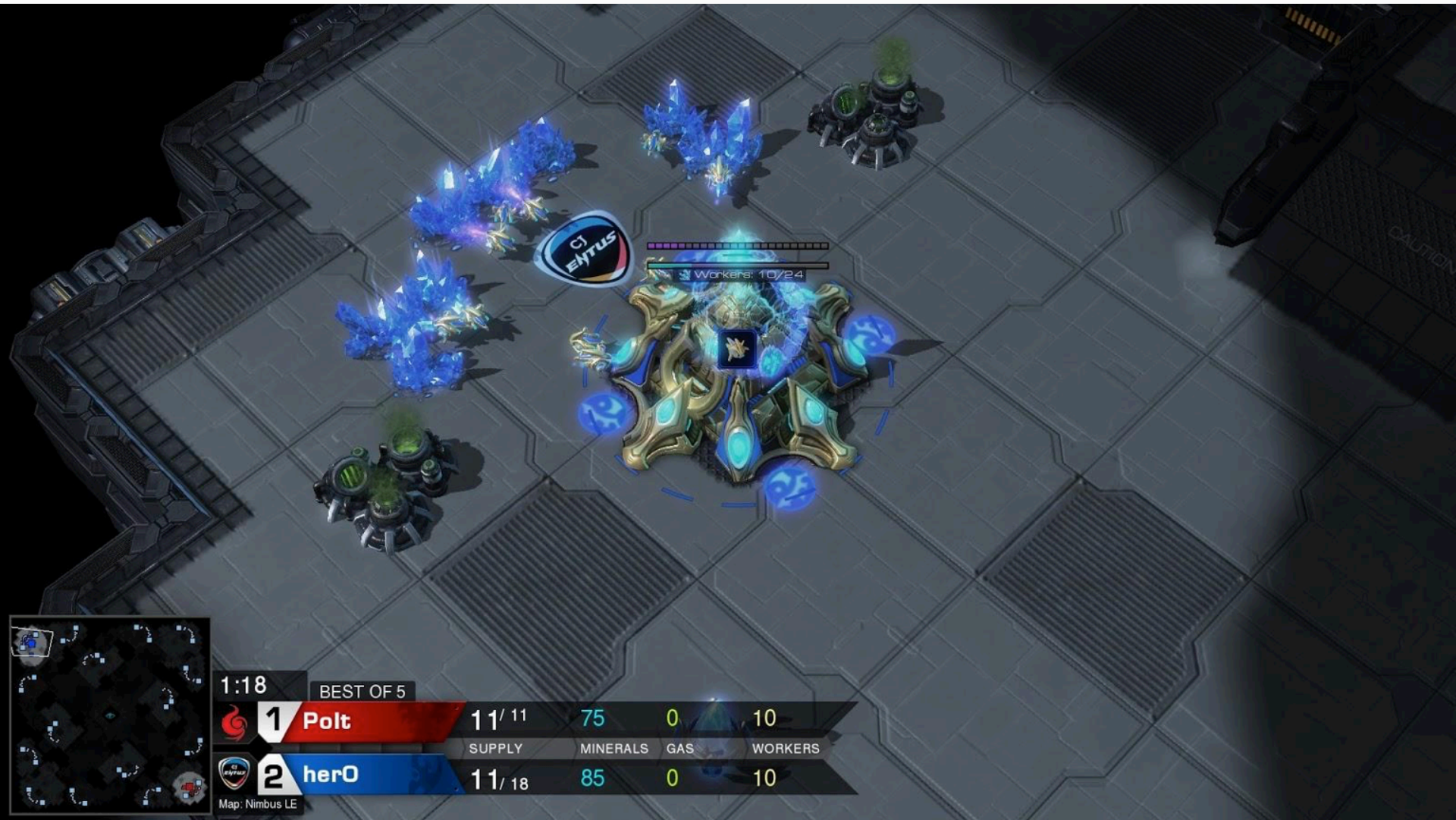
# Zoom







# Zoom







# Stronger Team Colors

STRONG  
COLORS:

OFF



STRONG  
COLORS:

ON









18:14





# Production icons in game world





# Upgrade notifications







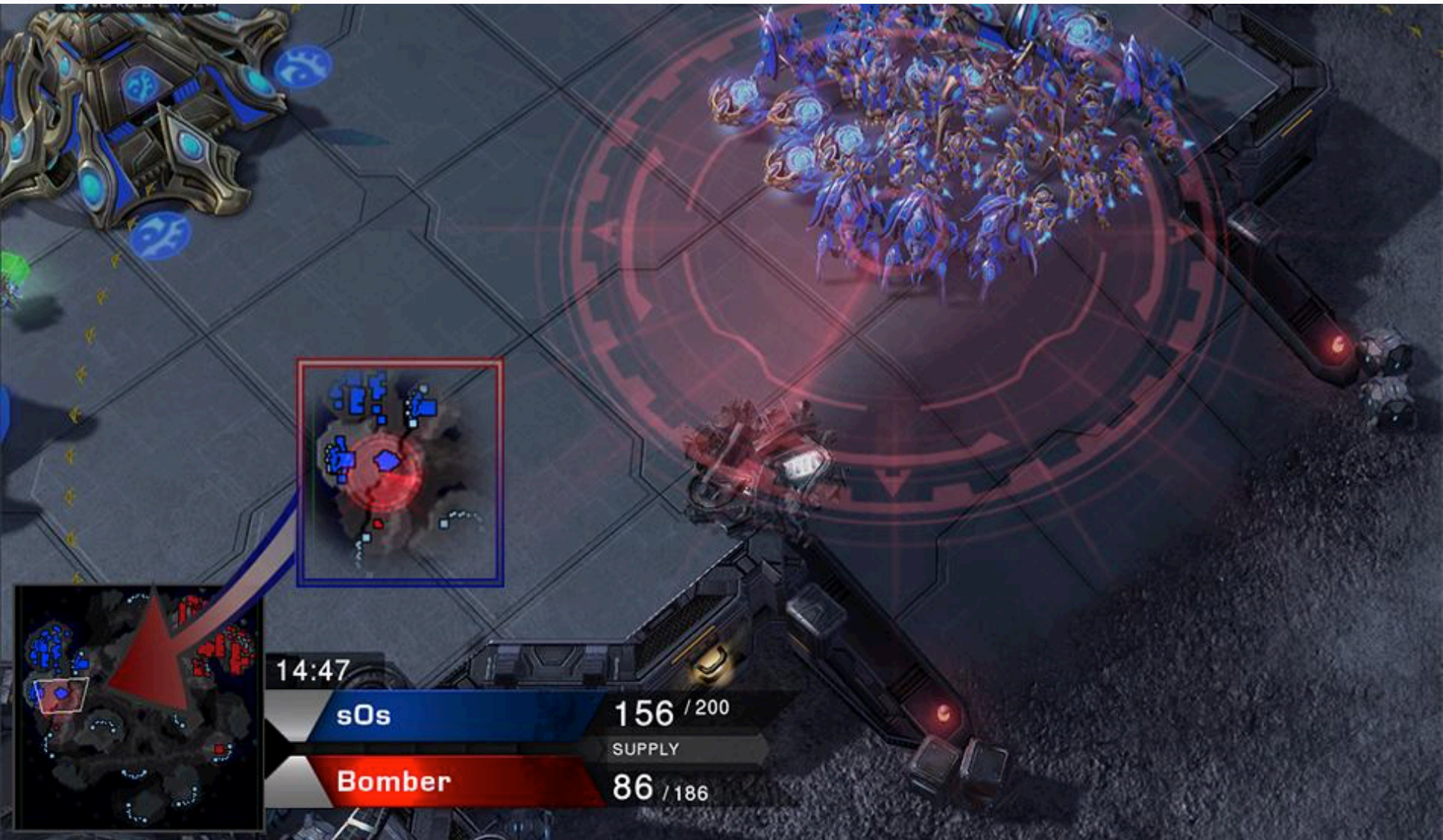
# Workers killed notifications







# Map notifications







# Community response

GameHeart is absolutely incredible. [Shoutout] (self.starcraft)



submitted 10 months ago by  Sougo 

I hate the new WCS overlay so, so much. [Discussion] (self.starcraft)



submitted 21 days ago \* (last edited 21 days ago) by groogns 



MIT  
GAME LAB<sup>™</sup>



최연성 / Terran

73전 57승 16패 78.0%

VS [T] 27승 11패 71.0%

VS [Z] 14승 2패 87.5%

VS [P] 16승 3패 84.2%

테라조 4강2차 / 1승2패

SKT T1

iloveoov

1334

3233

40/51





MAP

투혼



00:54

임요환

홍진호



104

80



0

0



7/10

8/9





# WoL broadcasting (Q2 2011)







# HotS broadcasting (Q2 2013)

**PRO CIRCUIT**

Player	Score	Gold	Minerals	Units
NANIWA	0	70	100	23/26
POLT	2	50	0	19/19

SEMIFINAL A

Production

Workers: 3/3

Workers: 14/24

MLG Neo Planet S 3:35

Microsoft

SCV

Kills: 0  
Rank: Recruit

45 / 45

46%  
#naniwa

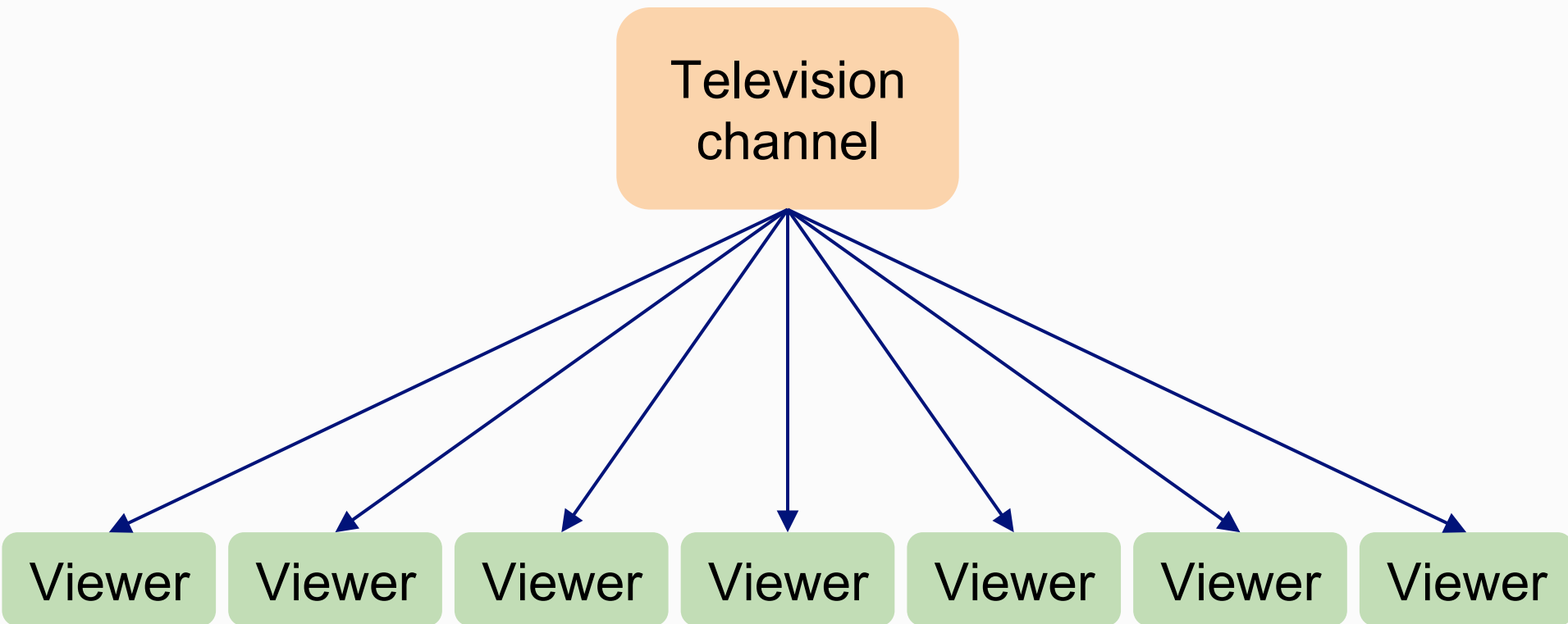
**WHO WILL WIN THIS ROUND?**

54%  
#polt

TWEET YOUR ANSWER WITH #MLG



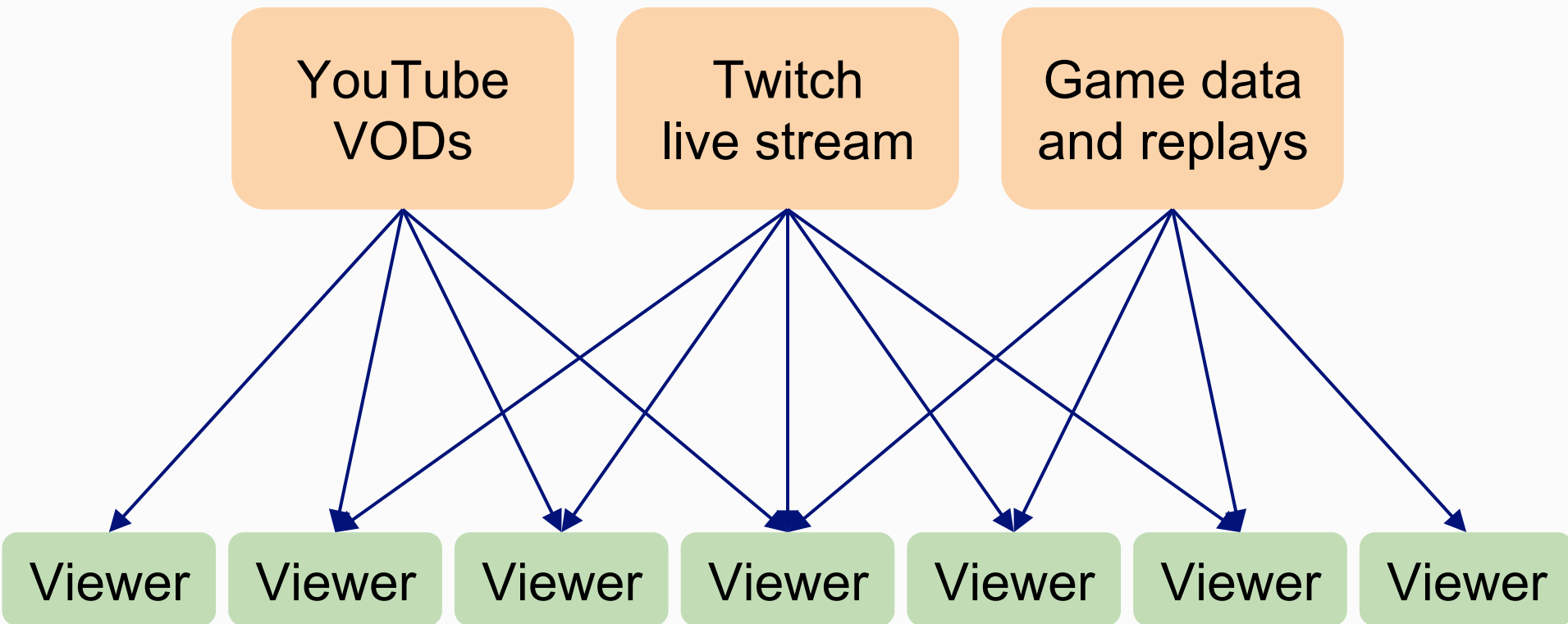
# Television broadcasting







# Internet video





# Peepmode (Q2 2011)

Justin Craig-Kuhn







**YES** TOR 0 NYY 0

1ST 3-2 0 OUTS PITCHES 8

**Pitch 5**  
92 MPH Four-Seam Fastball  
Called Strike

	1	2	3	4	5	6	7	8	9	R	H	E
Toronto	0	0	0	0	0	0	0	0	0	0	0	0
NY Yankees	0	0	0	0	0	0	0	0	0	0	1	1

SEASON TICKETS ON SALE NOW

**BLUE JAYS** **YANKEES**

	AB	R	H	RBI	BB	SO	LOB	AVG
Jeter, SS	1	0	1	0	0	0	0	.322
Swisher, 1B	0	0	0	0	0	0	0	.276
Cano, 2B	0	0	0	0	0	0	0	.308
Jones, An, RF	0	0	0	0	0	0	0	.206
Granderson, CF	0	0	0	0	0	0	0	.235
Pearce, DH	0	0	0	0	0	0	0	.250
Nix, J, 3B	0	0	0	0	0	0	0	.255
Suzuki, I, LF	0	0	0	0	0	0	0	.267
Stewart, C, C	0	0	0	0	0	0	0	.256
<b>Totals</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	

**BATTING**  
TB: Jeter.

**FIELDING**  
E: Jeter (9, fielding).

**PITCHING**  
Happ LHP  
4.68 ERA  
8 pitches (5S, 3B)

**3-2**  
0 out

**BATTING**  
Swisher 1B  
.276 AVG  
0-for-0

**ON DECK**  
Cano 2B  
.308 AVG  
0-for-0

**IN HOLE**  
Jones, An RF  
.206 AVG  
0-for-0





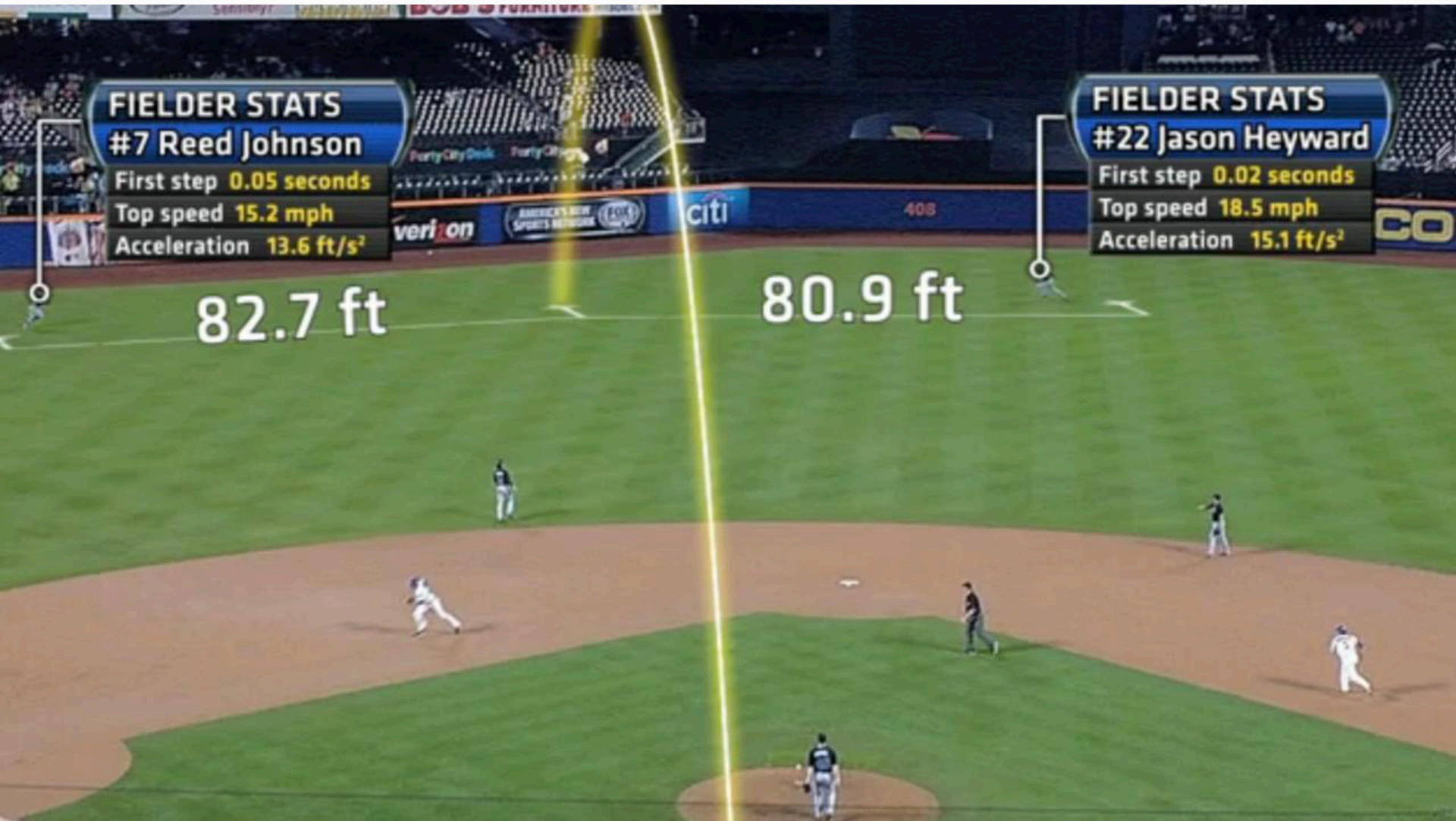
# GameHeart (Q3 2012)







# Maintain focus on the game





# SC2 Proleague (Q2 2013)







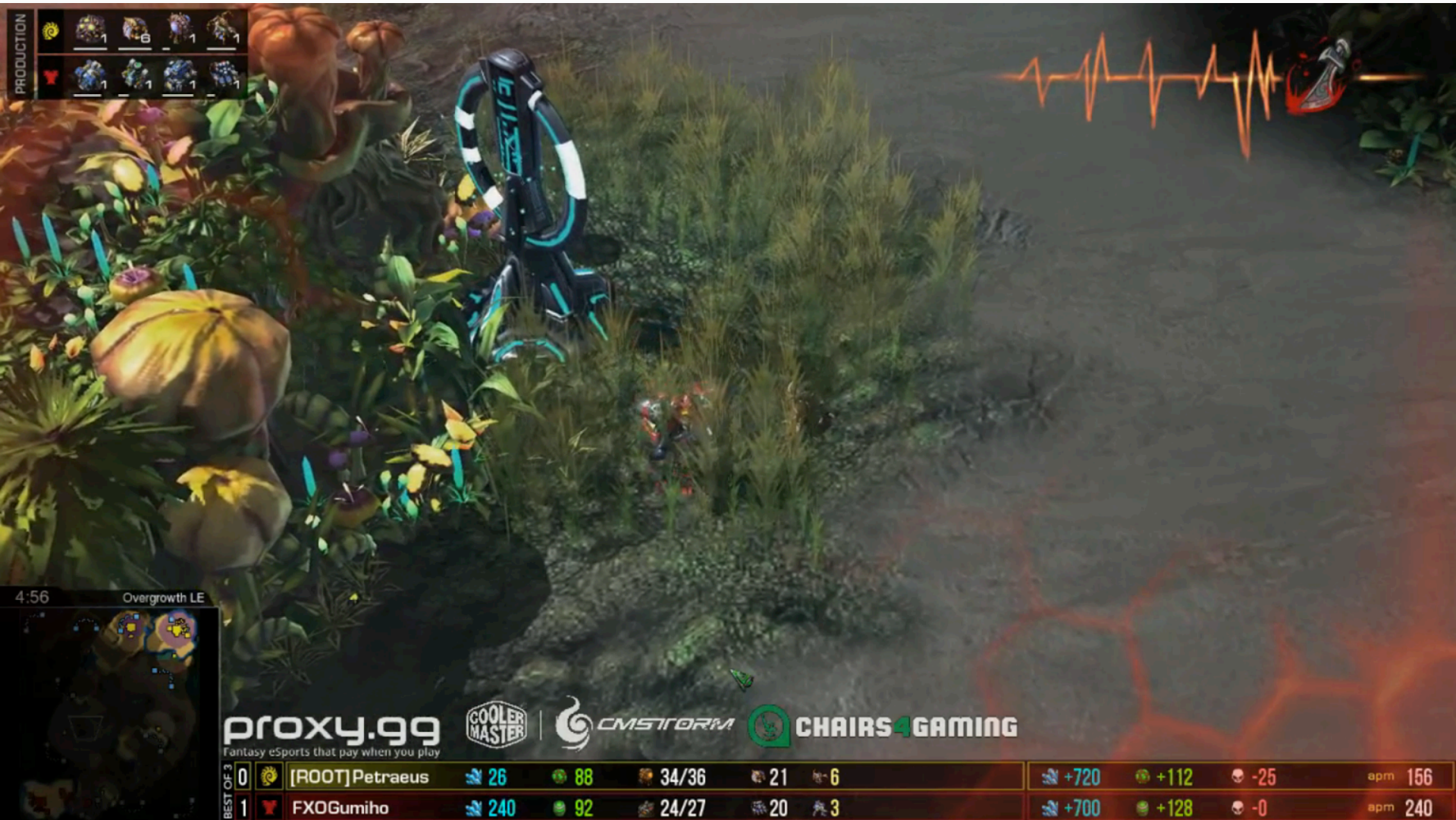
# Team logos, colors & sponsors







# Tournament animation











# MIT Overseer (Q3 2013)

1 vs 1

Ender

lfighterCN

LEAD

TECHNOLOGY

52

545

208

109/118

52

890

280

123/134

MIT] lfighterCN

MIT AKILON WASTES

UNITS LOST

		800		
150	175	250	300	175
		275	375	200

11:00

12:00

13:00

PRODUCTION

3

3

1

1

2

5

Ground Weapons Level 1

15.12

Muscular Augments

2.62

13:36

MIT GAME LAB





# Timely information





# Takeaways

- Balance aesthetics and compression
- Illustrate invisible concepts of good play
- Tell the story of the moment
- Support commentator style
- Build the hype!





# The big takeaway

Look at and talk to your mod community if you're trying to improve the spectator experience of your game.

**They know what they want to see!**

# Thank you!

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