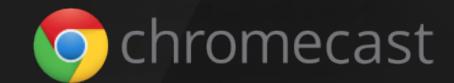
GOOGLE CAST GAMING DESIGN PRINCIPLES



What is a Google Cast game?





...and transforms mobile devices into amazing game controllers.

multi-spatial cross-platform easy to resume great for family night

Google Cast games are fun with friends

easy to learn

asynchronous or real-time

ambient or immersive

collaborative

The following principles explain best practices for conceptualizing and developing a game for Google Cast.

Decide if Casting is required or optional for gameplay.

Google Cast-Enabled

New games that extend gameplay, or existing games that are modified, to support the Google Cast model.

Gameplay is enhanced by, but not dependent on Cast.

Cast setup can occur at different times.

Google Cast-Required

Games built specifically to take advantage of the Google Cast model and its capabilities.

Gameplay in large part depends on Cast.

Cast setup occurs in the beginning of the experience.

Google Cast-Enabled

VS

Google Cast-Required

Making this distinction for your game is an important first step in integrating Google Cast.

Some UX models and game mechanics align more with Cast-Enabled use cases, some lean towards
Cast-Required ones.

Sometimes, it's a mixture of both.

Make game setup with Google Cast fast and easy.

Be mindful of the game in progress while providing easily accessible Cast controls.

Game controls are crucial, choose your input method with care.

Games on mobile devices use a variety of controls.

These controls can be categorized along a spectrum from Abstract to Direct.

Abstract

Control objects on the screen via some other mechanism, such as motion or touch anywhere.

Virtual

In between: touch something else to control something on the screen. (i.e. virtual joystick)

Direct

Touch the thing you want to interact with.



Accelerometer

No-Look Controls

Virtual Controllers

Target Manipulation









Abstract

Direct



When deciding on the game's input method consider the game's key characteristics like: pace of play, public vs. private information, multiplayer, latency sensitivity, and etc.

Being aware of how these characteristics affect gameplay will help you make decisions around input mechanics.

EX.

If the game is fast-paced ('twitch') it requires the player to be able to focus on either the TV or the device and be able to react quickly. Therefore 'nolook' accelerometer-based controls that don't require the player to shift focus between their device and the TV will probably work best.



Make the device an awesome controller

Consider all mobile phone/tablet hardware capabilities when conceptualizing game controls.

While touch screens lend themselves nicely to a number of interactions there are many more to explore and experiment with when considering the entire device; from microphones to accelerometers and everything in-between.



Two screens are better than one. Use both wisely!

A Google Cast game requires the use of both the sender device screen (mobile phone) and the receiver device screen (High resolution TV/Display).

Design the 10 foot¹ experience adhering to TV design guidelines and the 1 foot² experience adhering to mobile guidelines to understand what to emphasize in the relationship between the two.



^{1 10} foot UI design, interface design intended for large screens viewed at a distance

² For the sake of comparison, 1 foot refers to mobile and desktop UI design, interface design intended for smaller screens viewed up close

Additionally, direct the player's focus in very obvious ways at the right times.

Look down at your device now

Having to focus on controls while gameplay is happening out of sight can be a frustrating experience.

Make it easy to play with friends, locally and remotely.

Google Cast games can be great group experiences.

When designing for multi-player gameplay consider finding ways for multiple participants to join (and leave) the game with the least amount of friction possible.





YOU HAVE LEVELED UP!

Ok, now go and make something fun!

The experiences you create using Cast will help further refine these principals and inspire even more in the future.

