

Chromecast Centipede

Nate + Nikki + Roxanne



Team Members

- **Nate Begley**, Project Manager
- **Roxanne Coburn**, User Experience Designer/Developer
- **Nikki Bentley**, Back End Developer



Client

Chad McQuillen

- Bachelor's Degree in Computer Engineering.
- Senior Technical Staff Member at Lexmark International, Inc.
- This project is a personal project of his.



Project Overview

The Project:

- Modify an existing game
- Touchscreen functions as the controller
- Television with Chromecast functions as display
- Game will be ran through Chrome browser



Project Overview

The Project:

- Modifications made to add chromecast support
 - Original Game Code
 - Google Chromecast Example Code
- Redesign of the Game

Project Overview

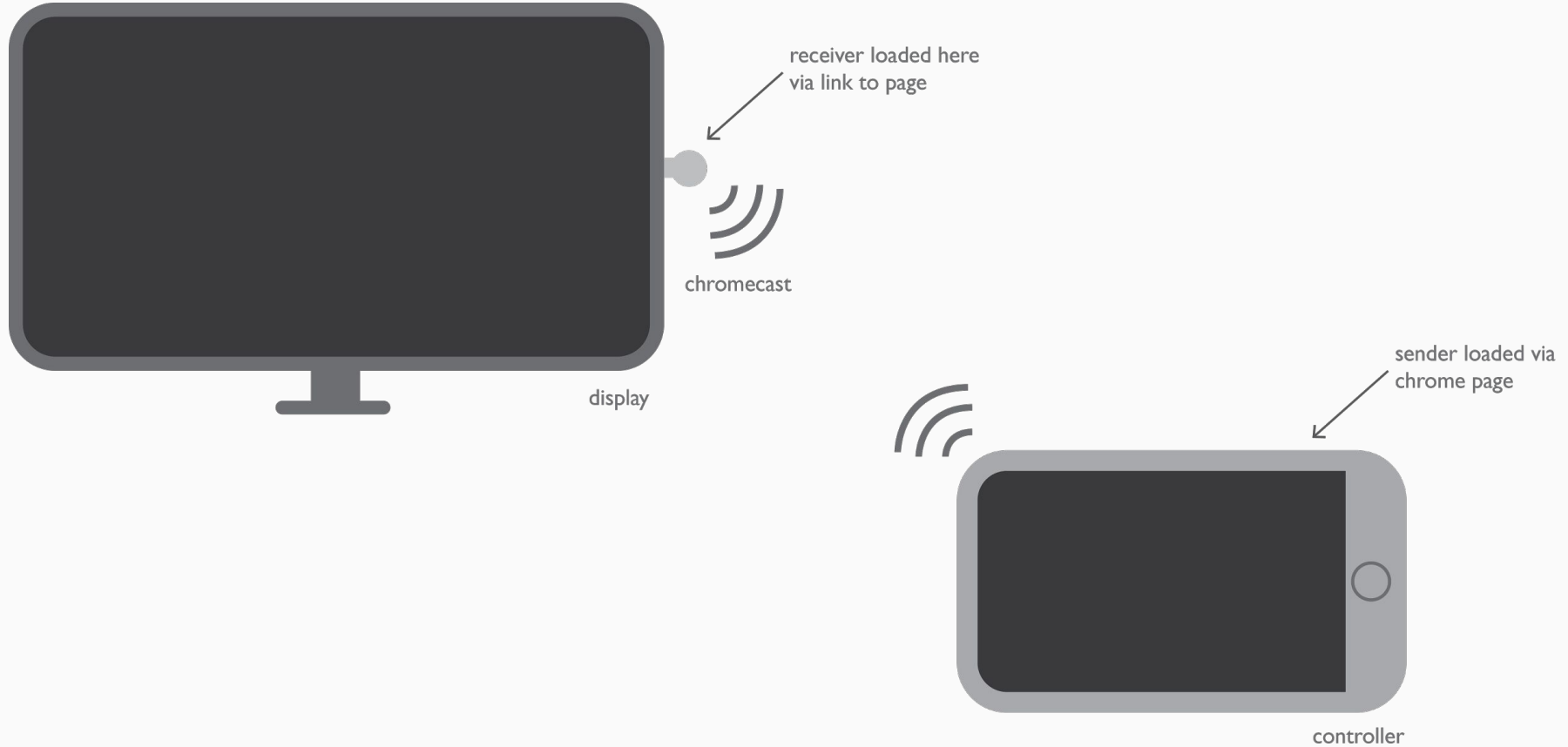
The Hardware:

- First generation Chromecast
- Up to date (Firmware v.1.22.80438)
- Developer mode and developer account



<http://onlygizmos.com/wp-content/uploads/2016/07/Chromecast.jpg>

Sender and Receiver



Data Flow



Project Overview

The Game:

- Version of the classic arcade game [Centipede](#).
- Randolph Burt
- AngularJS and HTML5 canvas
- Originally runs with the keyboard as the controller

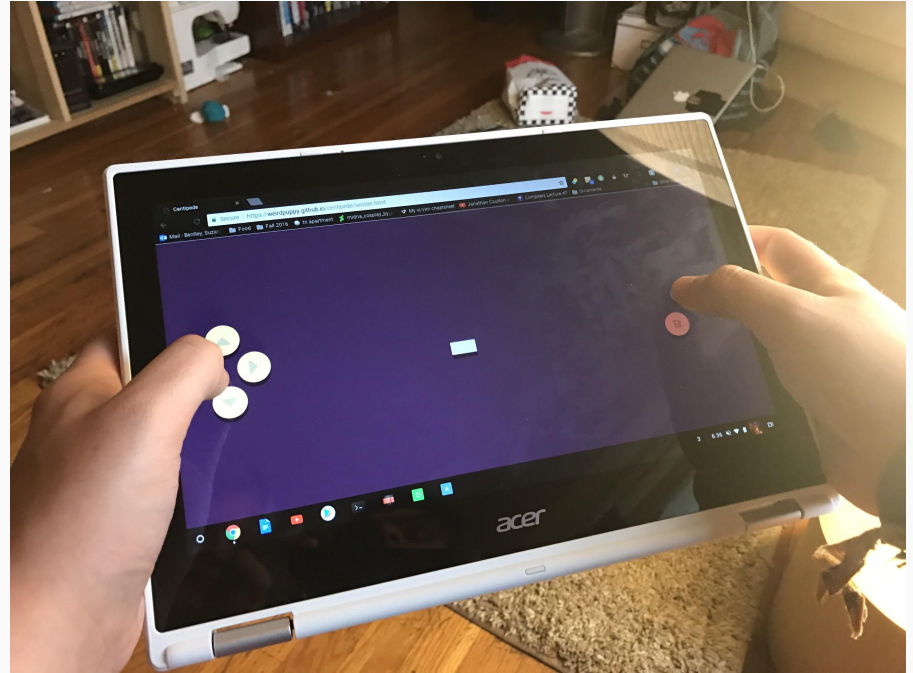
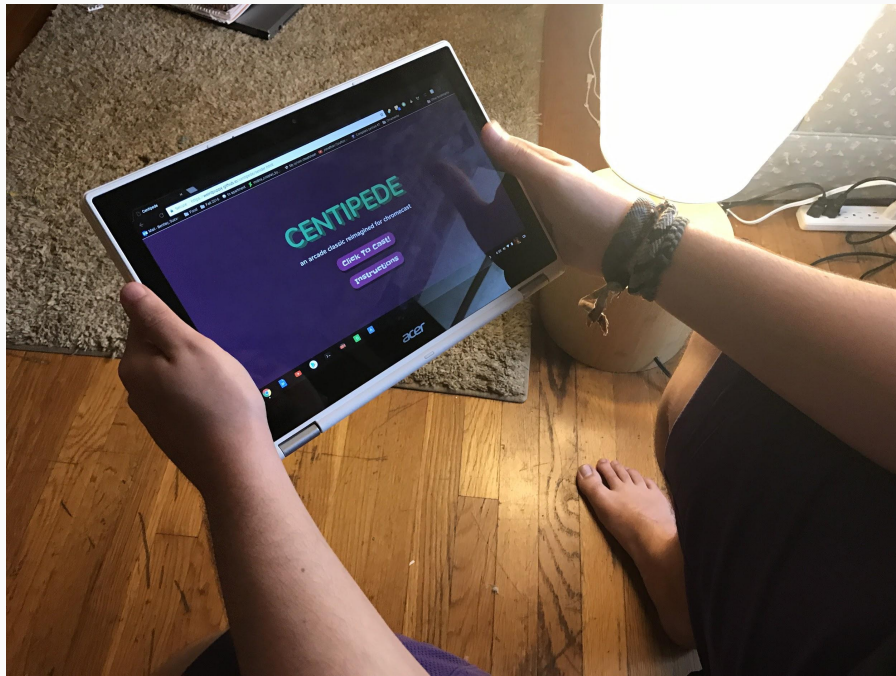


Redesign

- Added new improved graphics
- Instructions
- Touchpad controlled
- Awesome backstory



Redesign



Complications/Solutions

- Set-up for Development
 - Create a Developer Account with Google
 - Register Chromecast Device + App
 - One account to one device
 - Restart chromecast after registration
 - Update Chrome + Dev Mode



Complications/Solutions

- Lack of Recent Resources for Chromecast
 - Google Examples + SDK Documentation
 - Trial and Error
- App Update Lag
 - Wait after updating code
- Mobile Support
 - Tab casting
- Undefined Behavior
 - Reboot Chromecast



Testing

- Customer Testing
- System Testing

	MacBook	Windows PC	Chromebook	iPhone	Android
Fully Functional	✓	✓	✓	✗	✗

Looking Forward

- Potential Customers
 - Chromecast patrons
 - Centipede fanatics
- Maintenance
 - Changing versions of Cast SDK
 - Game and Site hosting
- Improvements
 - Mobile App





Thanks everyone!

