



Controlling Carnage

Effective mobile action platformer controls

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GAME DEVELOPERS CONFERENCE®

MOSCONE CENTER · SAN FRANCISCO, CA

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- **Roadhouse Interactive** is a mobile game development studio in Vancouver, Canada
- Founded in 2009 with over 100 talented folks building several titles





Warhammer 40,000: Carnage is an action “RPG” side-scrolling platformer for mobile and tablet devices



It used to be so easy...





More buttons! More innovation!





Now what?





AGENDA

Part I – **Early Game Evolution**

Part II – **Iteration of Controls**

Part III – **Late Stage Evolution**





Controlling Carnage - Part I

EARLY GAME EVOLUTION





Original Pitch

- Auto-runner with combat in the 40K universe



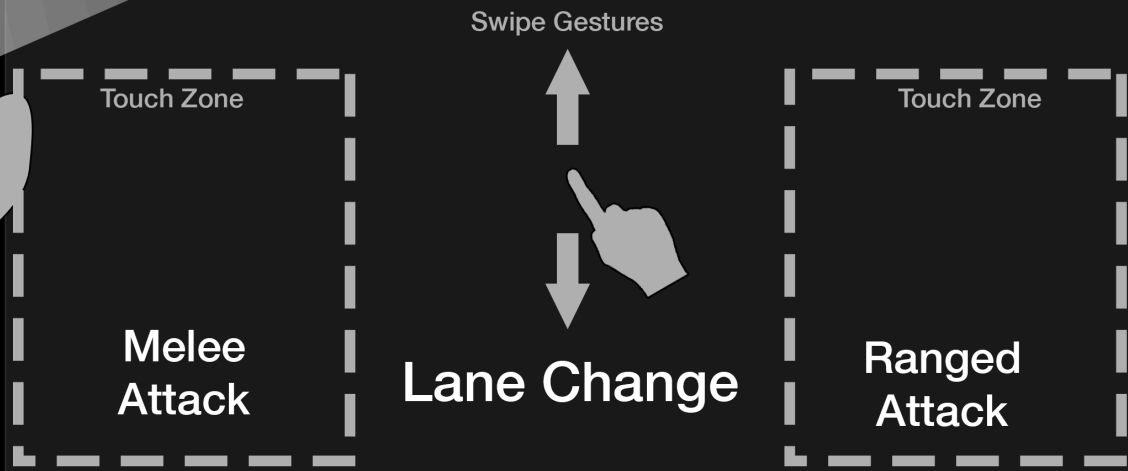
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Auto-Runner Controls

Gesture controls were designed for the casual target audience





Gameplay Reboot

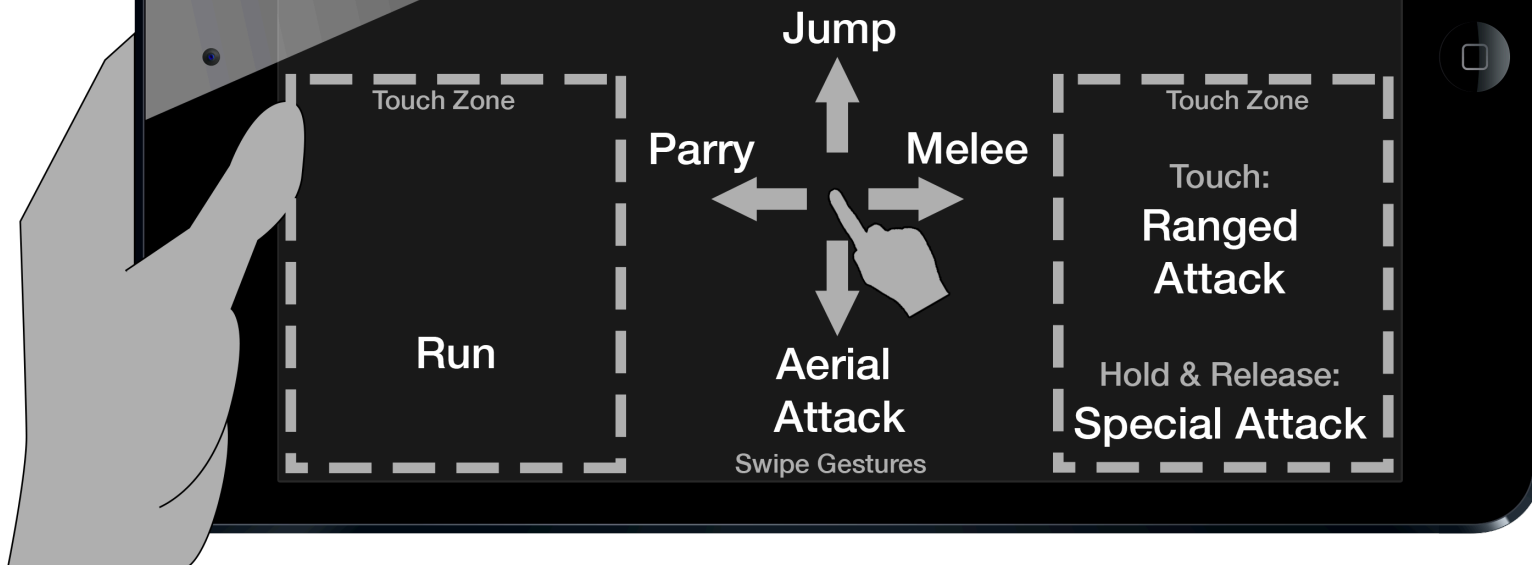
- Player movement and combat wasn't fun
- We realized we wanted to make more of a classic side-scrolling platformer than a mobile runner.





Gesture Controls

Control needs were driven by
new gameplay requirements





Still not feeling right..

- Unfortunately, we had a public demo in 2 weeks.
- Time to scramble.





Button Controls

Simple control solution driven by
timeline constraints





Controlling Carnage - Part II

ITERATION OF CONTROLS



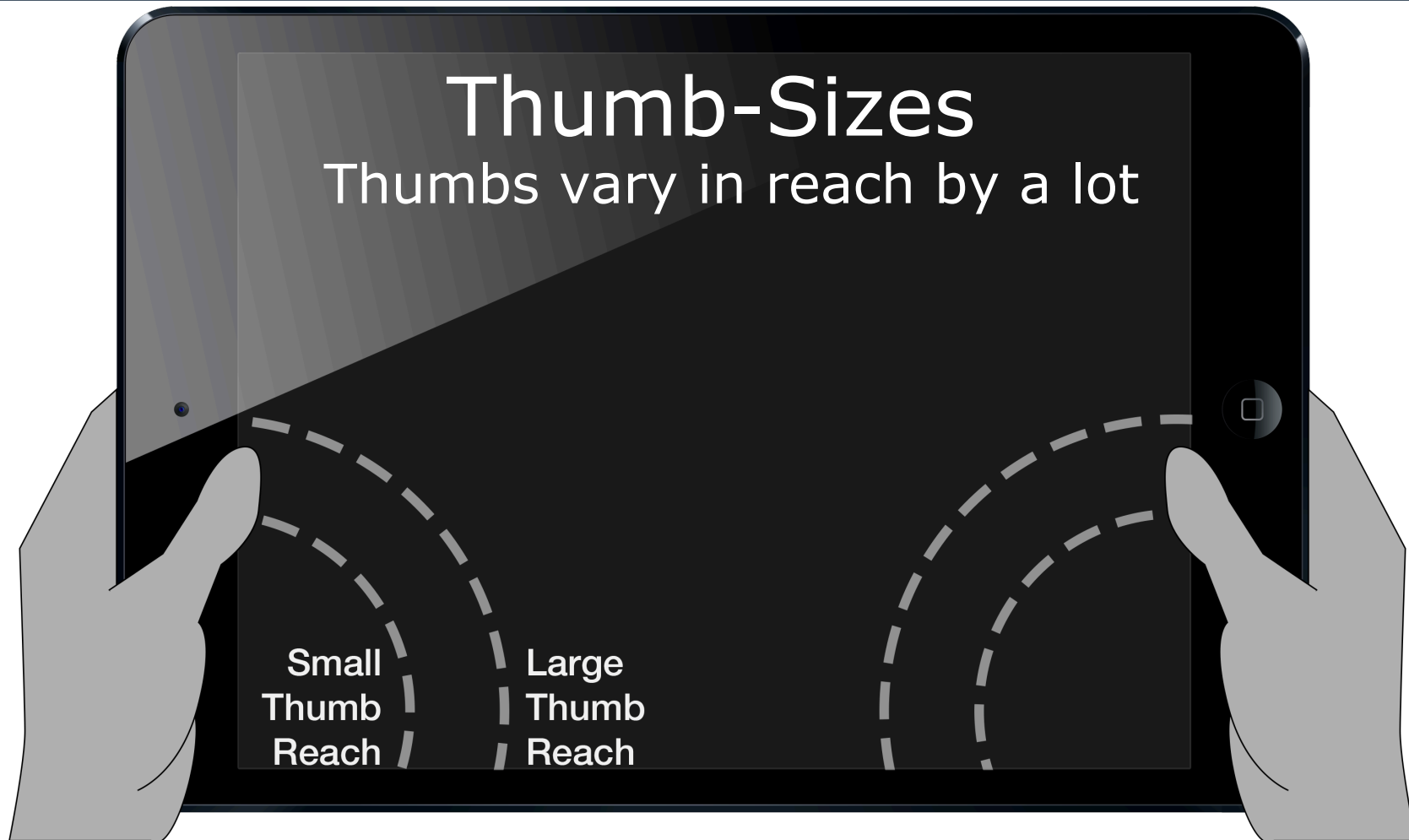


Thumb-Sizes

Thumbs vary in reach by a lot

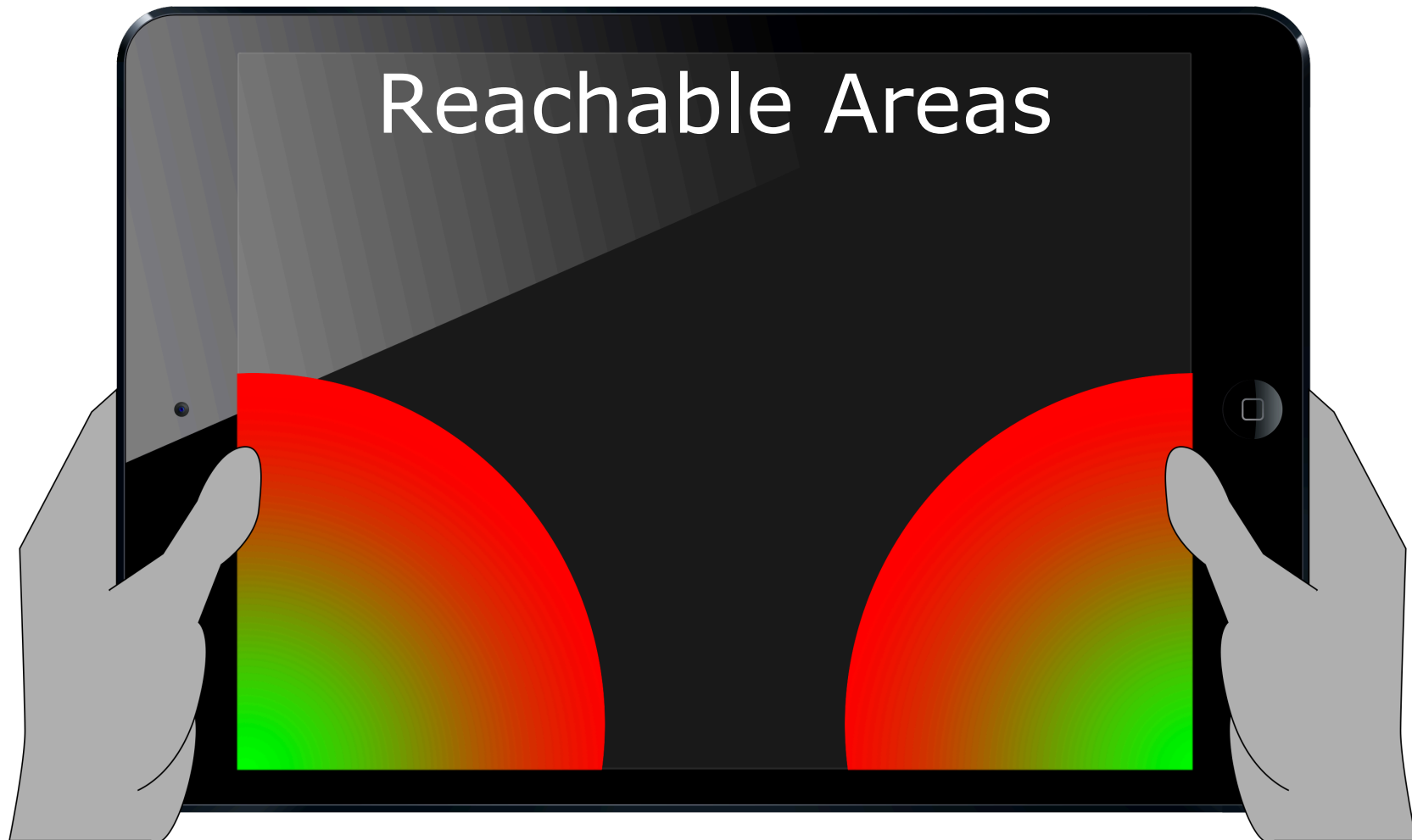
Small
Thumb
Reach

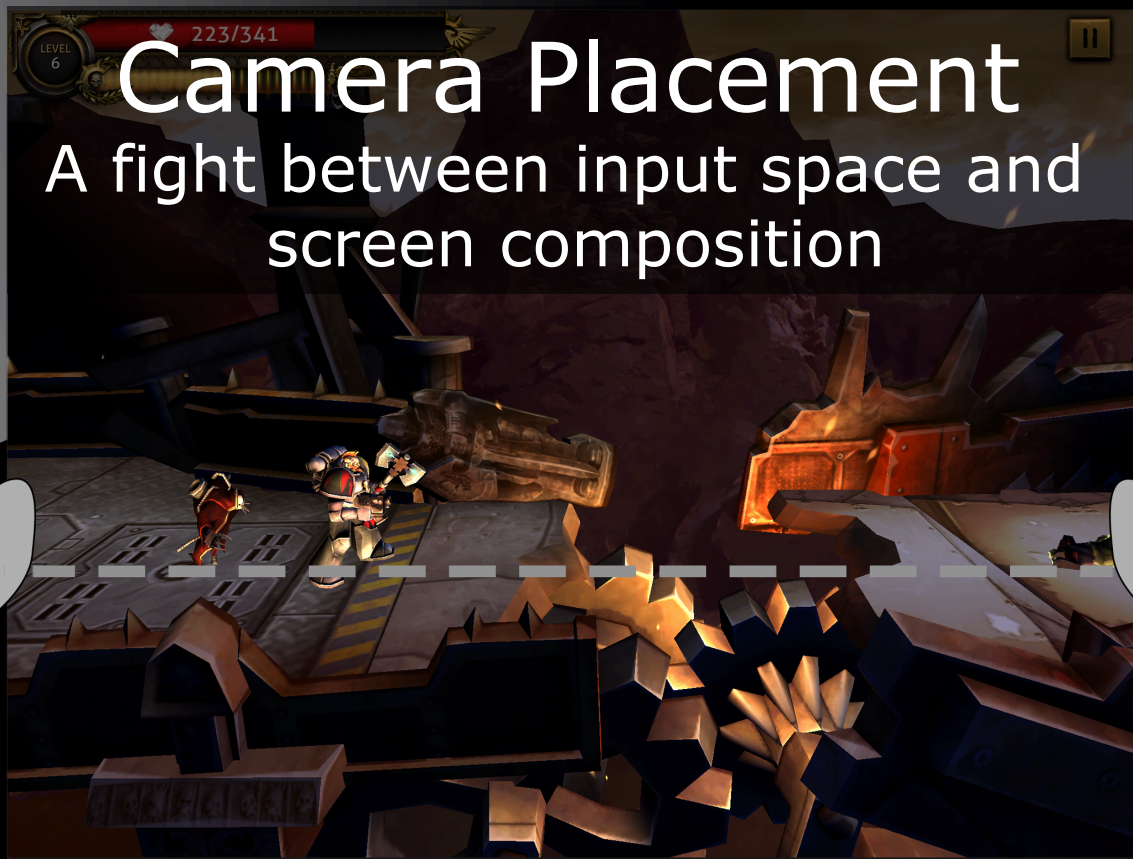
Large
Thumb
Reach





Reachable Areas





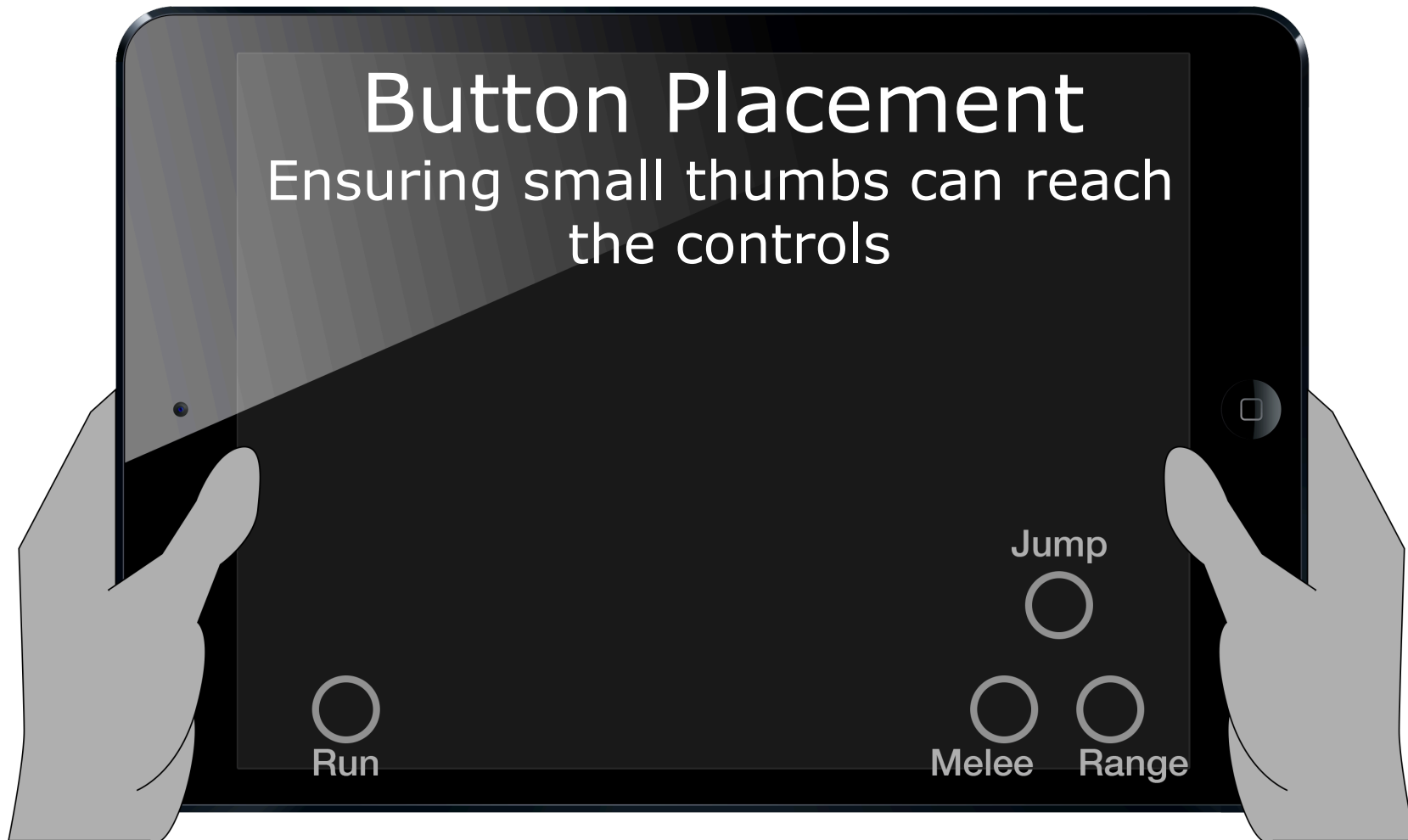
Camera Placement

A fight between input space and screen composition



Button Placement

Ensuring small thumbs can reach the controls





Problems with Buttons

- Mis-Clicks
 - Players pressing the wrong button by mistake.
- Thumb-Drift
 - Players' thumbs drifting away from hit areas.





Controllers Have Tactile Feedback





Solving for the Lack of Tactile Feedback

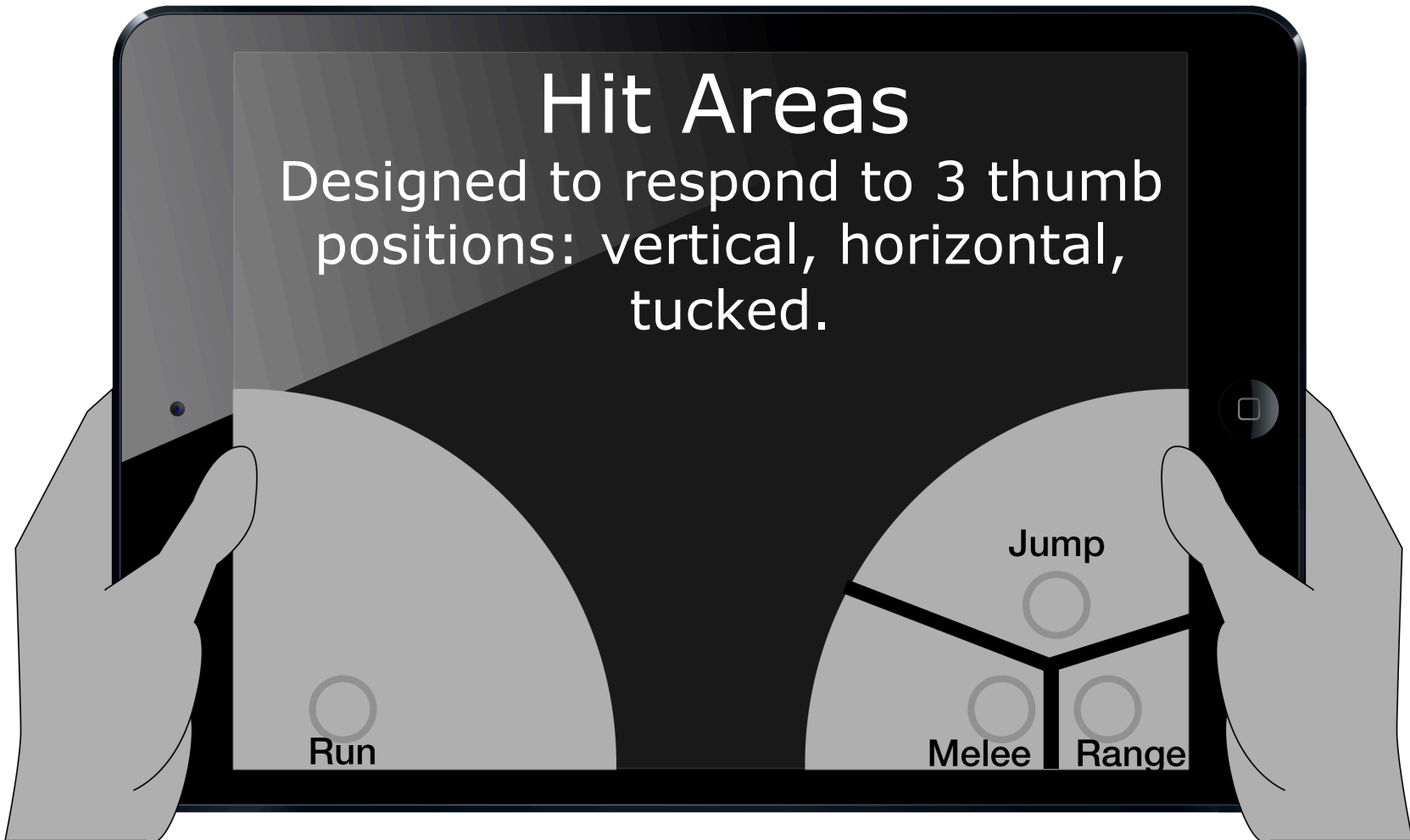
Hypothesis: Muscle feedback from vastly different thumb positions can offset the loss of tactile feedback.





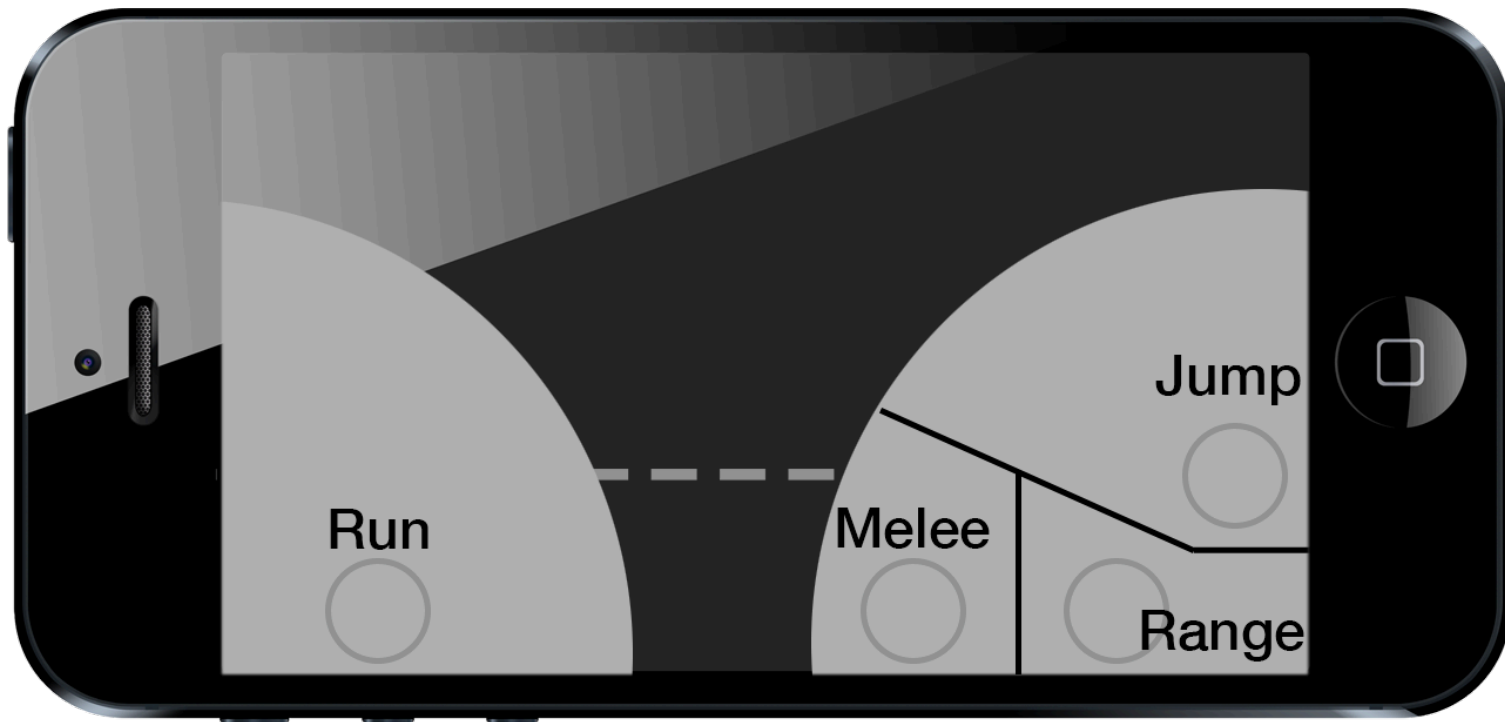
Hit Areas

Designed to respond to 3 thumb positions: vertical, horizontal, tucked.





iPhone Adjustments





iPhone Adjustments





Controlling Carnage - Part III

LATE STAGE EVOLUTION





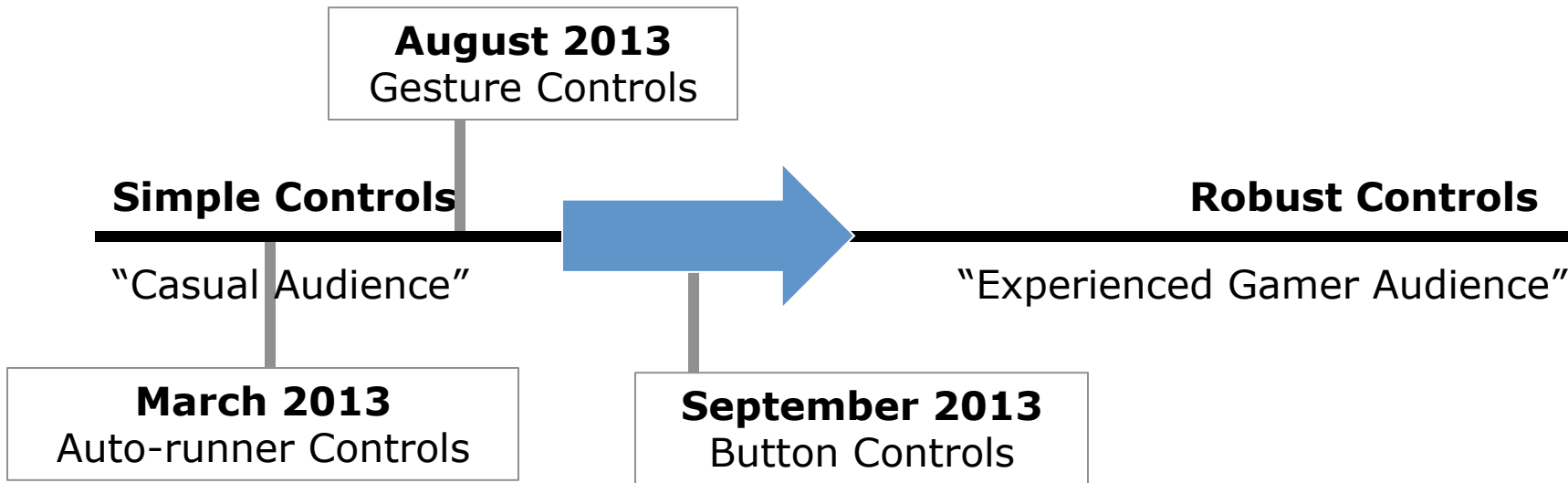
Gameplay Pressures Post Alpha

- Gameplay wasn't robust enough
- We're going to need more controls



Gameplay Pressures Post Alpha

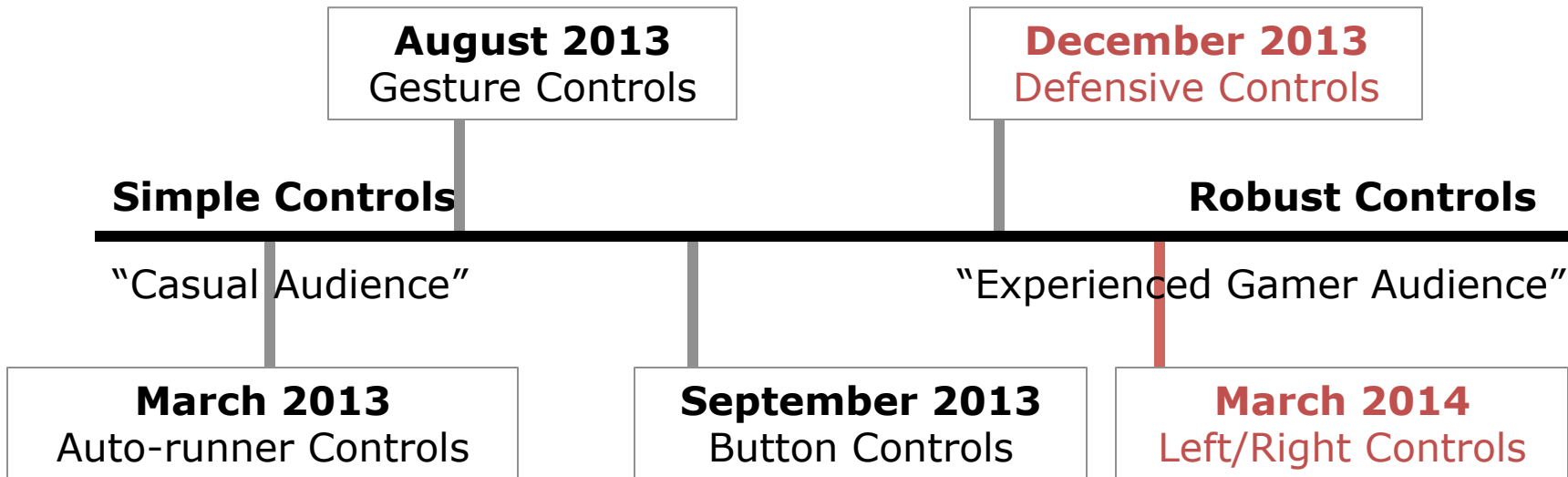
- Complexity of controls was a hotly debated topic during the entire project.





Gameplay Pressures Post Alpha

- We added defensive and left/right controls to allow for more robust gameplay.





Final Control Scheme

Block

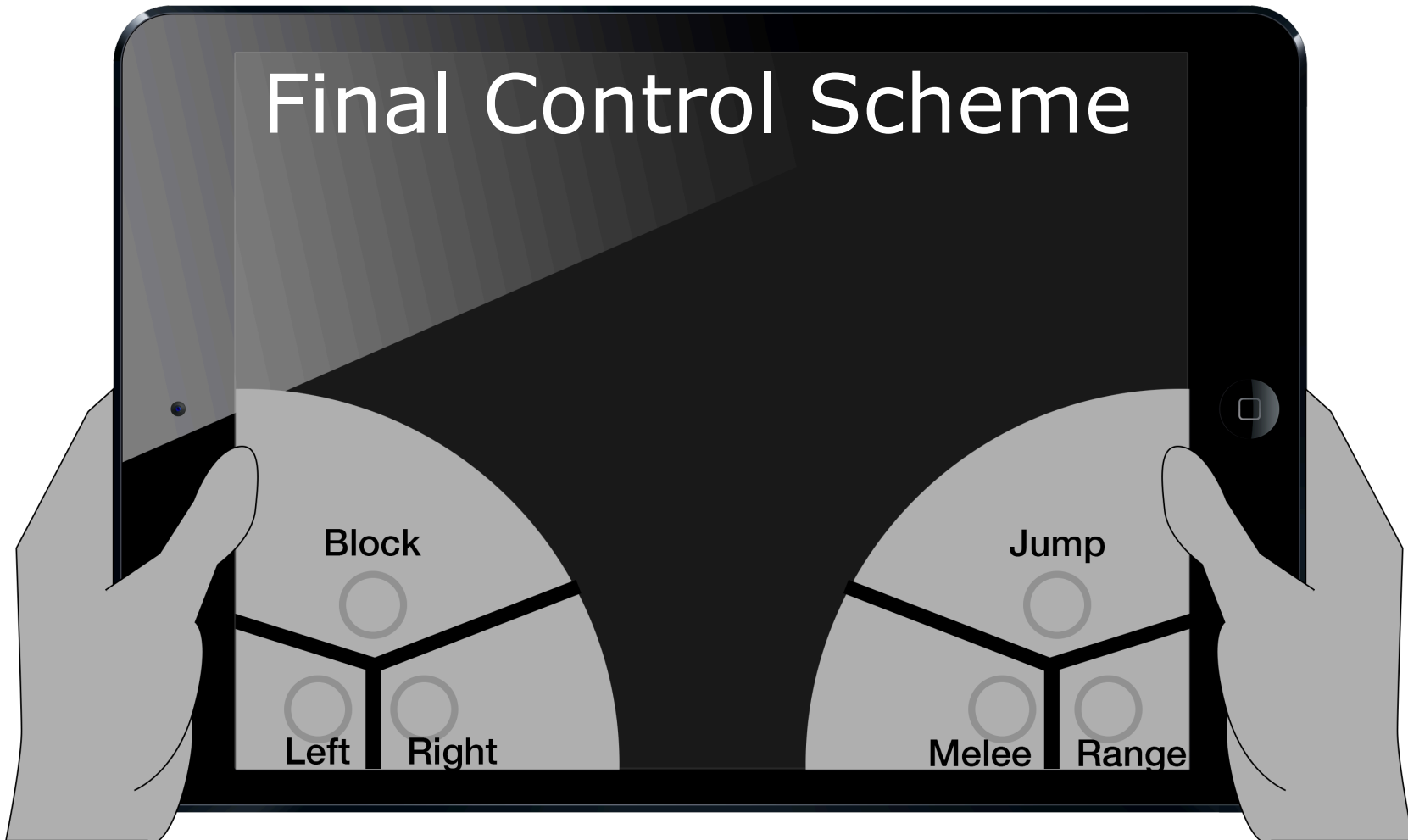
Jump

Left

Right

Melee

Range





Final Tweak

- Sliding between hit-pads allowed for significantly more fluid movement controls
- Allowed for easier Jump + Shoot





Controlling Carnage - Part IV

CLOSING THOUGHTS





Carnage Control Scheme

- It's been successful
 - 6 hit-pads with modal capability has allowed for robust gameplay options
 - Easy to learn
 - Responsive and predictable
- But we continue to refine and iterate



This stuff is hard

- Controls for mobile games are hard.
 - No pre-defined UX or standard physical input device
- Lack of tactile input means many console-schemes don't work
 - But sometimes these limitations can be subverted



But there are many opportunities

- Controls, Gameplay and Target Audience are closely coupled
 - Exciting possibilities!
 - New genres can be created and old genres reborn to target different audiences
 - We now have greater control of how players interact with our games



Inspiring end slide

- Let's move beyond the tap, tap, tap and virtual D-Pad.
- Let's innovate and create new ways for our players to interact with our games.





Thank you,

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