



April 1, 2025



Milestone Delivery Document

Alpha (“α”)

Milestone Definition:

Purpose: Alpha delivers the entire game for the first time. It must be arguably shippable, contain no placeholder assets, and, critically, be feature-complete. From this point forward, production shifts to polishing the game to professional quality standards, balancing gameplay, and fixing bugs.

- Feature complete
- Completely playable with no missing features (no matter how small)
- No placeholder assets
- All art and design of shippable quality
- Understood that polish, balance, and bug fixes remain
- Passes compatibility testing
- All non-game assets (installers, etc.) are shippable quality

Milestone Artifact:

We will deliver a playtest-ready executable that is fully playable from beginning to end and includes all intended features for launch. All assets in the game will be of a shippable quality, and there will be zero placeholder assets. There will be a Grand Prix and VS mode, with all tracks featuring shippable AI, game logic, pickups, and obstacles, and a second-pass audio implementation for SFX, music, etc. A fully functioning menu system that properly includes the modular parts aspect of the game, so players can fully interact with the system.

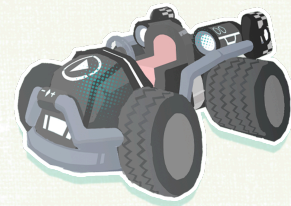
Milestone Goals:

Level Design: Each track will undergo a shippable art and asset pass, with all race logic and gameplay mechanics intended for launch added, along with a first and second pass at balance. The tracks will use a modular part variety to create engaging, diverse gameplay that varies by track and terrain island. A second pass at conveyance, sightlines, and turn prediction will be performed, and any necessary changes will be implemented. Lastly, three new tracks will be developed in the initial gameplay stage, allowing for two grand prix.

Art: All remaining assets, including characters, karts, VFX, modular parts, new island landmarks, obstacle models, and track environment assets, will be added to the build with shippable quality. All current assets within the tracks and art zoo will be updated and iterated upon based on feedback or necessity. The art for the UI, HUD, and menus will be implemented with shippable quality, along with all remaining and current animations. Additionally, a first and second pass at lighting will be conducted for each of the final tracks.

Software Development: All menus and HUD will be fully functional, allowing players to navigate through the game easily. The HUD will also properly function in both single-player and multiplayer modes. Kart mechanics will be updated, and the boost-after-drift mechanic will be added. The camera's position relative to the kart will be adjusted and updated for better visibility. All race logic will be updated and refined, and the modular part, kart, and character functionality will be fully implemented within the menus to enable players to select the modular parts, karts, and characters they prefer. AI will reach shippable quality, capable of using items, dodging obstacles, and minimizing instances of getting stuck. Lastly, controllers will achieve full functionality in both single-player and multiplayer modes, along with a working Steam SDK and a nightly build machine.

Audio: Sound effects for menus and UI systems will be implemented with an initial pass. Kart-related interaction sound effects will be added for each pickup, the boost from drifting, an overall drift SFX pass, and collisions with pickups and obstacles. Additionally, a basic dynamic music system will be set up to play race music, announcer voiceovers, and menu music. Lastly, the music from the meadows will undergo a second pass for implementation.



Milestone Deliverables

Discipline	Deliverable	Priority
Level Design	1st Grand Prix: three tracks, functional and aesthetic , and partial balance pass with fully implemented race logic that allows for a whole race to take place. <ul style="list-style-type: none"> • Disc • Dune • Circuit 	MVP
	All Island terrain types are refined, and additional balance passes are made.	MVP
	Original pickups are fully implemented across every track and are functional , with shippable polish and a second pass at balance. <ul style="list-style-type: none"> • Tractor Beam • Speed Boost • Speed Trap • Vision Block • Shield 	MVP

	2-3 New Pickup Items implemented with basic functionality , but not balanced.	MVP
	New Tracks with basic implementation <ul style="list-style-type: none"> Reverse Mode Night time 	MVP
	Island and Track-Specific Obstacles are implemented and functional , with shippable art assets.	MVP
	Modular Part first pass of balancing.	MVP
	Second Pass Track Asset Populating.	MVP
	First Pass of balance for the New Tracks.	Stretch Goal
Art	Shippable Kart Assets <ul style="list-style-type: none"> 4 Karts 9 Modular Parts 	MVP
	Shippable Character Assets <ul style="list-style-type: none"> 4 Characters 	MVP
	Shippable Environmental Assets <ul style="list-style-type: none"> Building Mod Kit Additions Track Intersection Pieces Track Tubes Track Funnel Ramp Winners Circle Assets 	MVP
	Shippable VFX <ul style="list-style-type: none"> Disc and Circuit Ambient FX Tractor Beam Update Vision Block Pickup Update Speed Trap 	MVP
	Shippable Menu Art <ul style="list-style-type: none"> Title Screen/Start Game Track Select Game Mode Select (Grand Prix/Single Race) Character Select Kart Select Options Menu/All Settings Credits Modular Part Menu 	MVP

	Shippable HUD Art <ul style="list-style-type: none"> • Race Ranking • Pickup Icons • Timer • Lap Counter • Mini Map • Leaderboard 	MVP
	Shippable Improvements <ul style="list-style-type: none"> • Arena/Stadium Polish pass • Disc and Circuit Islands • Speed Pad 	MVP
	Shippable Lighting <ul style="list-style-type: none"> • First/Second Pass of Lighting in all Tracks 	MVP
	Shippable Animations <ul style="list-style-type: none"> • Character Select Screen • Kart Select • End of Grand Prix Winner 	Nice to Have
	Shippable Landmarks <ul style="list-style-type: none"> • 3 Landmarks – Gacha Machine, Antenna, Hourglass 	Nice to Have
	Shippable Weather FX <ul style="list-style-type: none"> • Fog/Rain 	Stretch Goal
	Shippable 2D Art <ul style="list-style-type: none"> • Posters • Characters • Karts • General Marketing Material • In-game ads (fake ads) 	Stretch Goal
Software Development	Refine all Race Logic <ul style="list-style-type: none"> • Race finish • Flow between races seamlessly • Leaderboard • Wrong Way Functionality • End of Grand Prix Ranking System • Refine Spline Blueprints 	MVP

<ul style="list-style-type: none"> • Camera Fixes 	
<p>The Kart select screen has full functionality and implements the Kart into the race.</p> <ul style="list-style-type: none"> • Works for singleplayer • Works for multiplayer 	MVP
<p>Kart Physics</p> <ul style="list-style-type: none"> • Mesh-Based Gravity Improvements • Drift Boost • Suspension Improvements 	MVP
<p>Refine multiplayer mode functionality.</p>	MVP
<p>AI</p> <ul style="list-style-type: none"> • Use items effectively • Make sure AIs don't get stuck. 	MVP
<p>Menus</p> <ul style="list-style-type: none"> • Full keyboard and controller support • Track Select • Character Select • Kart Select • Modular Part Menu • Game Mode selection of VS and Grand Prix is fully functional 	MVP
<p>HUD</p> <ul style="list-style-type: none"> • Mini map • Timer for singleplayer • Complete functional Player HUD for singleplayer and multiplayer 	MVP
<p>Working Steam SDK.</p>	MVP
<p>Performance Pass and Issues, Steady 60 FPS</p>	MVP
<p>Controller with full functionality</p> <ul style="list-style-type: none"> • Singleplayer • Multiplayer 	MVP
<p>Working nightly automated builds.</p>	Nice to Have
<p>Automated Testing and Analytic tools for Heat Maps</p>	Nice to Have
<p>Save Option Settings that remain consistent between play sessions.</p>	Stretch Goal
<p>DLSS Functionality</p>	Stretch Goal

Audio	Audio for race-related interactions <ul style="list-style-type: none"> • Dynamic race music system • Announcer for the name of the game • Refined race music 	MVP
	Sound FX for kart-related interactions <ul style="list-style-type: none"> • Every unique pickup • Kart boosting in relation to drifting • General Drift sound pass • Kart hit by pickup/obstacle. 	MVP
	Sound FX for race-related interactions <ul style="list-style-type: none"> • Wrong Way • Death/Falling off track • Respawn • Obstacles 	MVP
	Sound FX for menu and UI <ul style="list-style-type: none"> • Selection of a menu option or button • Hover over button/menu options. • Start Race Button sound. 	MVP
	Sound FX for menu and UI <ul style="list-style-type: none"> • Dynamic menu music 	Nice to Have
	Sound FX for characters <ul style="list-style-type: none"> • Different horns/sounds for each character 	Stretch Goal
	Sound FX for the environment <ul style="list-style-type: none"> • Terrain-specific skid sound effects • Ambient sounds 	Stretch Goal

Milestone Risks

	Risk	Consequences	Mitigation	Contingency	Priority
R.1	New track variants	A core game that is constrained to just one grand prix, making the game overall simple and lacking longevity.	Ensure we plan early for additional track variants and get the MVP of what those tracks might look like by Alpha.	Worst case, look into how we can make minimal changes to our current tracks to provide a different variety, such as changing the time of day.	High
R.2	Modular Part Implementation in a meaningful capacity	A core game pillar would feel underbaked and does not impact gameplay.	Implement as many modular parts as we can, with interactive sliders for the kart attributes.	Remove the need for full modular part functionality and stick with slider functionality till a later milestone.	Medium

R.3	Kart and character selection for multiplayer	Multiple players would be unable to select the kart and characters they want, or couldn't start the race.	Allow at least one player to choose the kart and character for everyone playing.	Have the kart and character be automatically selected if the functionality is lacking.	Medium
R.4	Menu functionality for multiplayer	All players except player 1 have no control over any UI elements.	Player 1 currently controls the necessary screens.	Fake the system as best we can by having each player control the screen at separate times.	Medium

Lead Approval & Signatures

Role	Name	Signature
Lead Level Designer	Ian Rodriguez	<i>Ian Rodriguez</i>
Lead Artist	Yona Xuan	<i>Yona Xuan</i>
Lead Software Developer	Carlotta Guan	<i>Carlotta Guan</i>
Level Design Producer	Max Tabin	<i>Max Tabin</i>
Art Producer	Steven Smith	<i>Steven Smith</i>
Software Development Producer	Danni Yuan	<i>Danni Yuan</i>
Game Designer	Colin Park	<i>Colin Park</i>
Lead Producer	Alex Maddox	<i>Alex Maddox</i>

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