

Drivable Sports Car

Vehicle Vol. 1 (Chaos Drift Fix, Steering Wheel & Sounds)

Documentation



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1. Mandatory Prerequisites

To ensure the vehicle blueprints function and open correctly, you must enable the official **ChaosVehiclesPlugin**. You can migrate the pack into your project first, but the blueprints require the plugin to be active.

1. Open your project in Unreal Engine.
 2. Go to **Edit -> Plugins**.
 3. Search for **Chaos Vehicles Plugin** and enable it.
 4. Restart the engine.
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2. Getting Started & Controls

The pack includes a **Demo** folder containing the standard Epic Games Chaos Vehicle setups (Game Mode, Player Controller, Inputs, Vehicle UI, and the default UE5 Mannequin for demonstration purposes).

- **Camera Toggle:** Press **Tab** during gameplay to switch between the 3rd-person chase camera and the 1st-person cockpit view.
 - **Brake Lights:** The brake light intensity is fully automated within the vehicle blueprint and reacts dynamically to your braking input.
 - **Road Setup:** For the vehicle to behave correctly and maintain grip, you should apply the included **NonSlippery** Physical Material directly to your road materials.
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3. The Chaos Drift Fix ("ThrottleFix")

By default, the Unreal Engine Chaos Vehicle system aggressively slows down vehicles when steering at full throttle, making drifting or arcade-style cornering almost impossible. This blueprint includes a custom **ThrottleFix** function to counteract this.

- **How it works:** The function automatically calculates a counter-value and adds **Set Drive Torque** to the vehicle while steering, completely independent of the car's max torque setting.
 - **Adjusting the Effect:** You can make the drift assist stronger or weaker by adjusting the local variable **TorqueMultiplier** inside the function, or by tweaking the values within the curve asset **C_ThrottleFix**.
 - **Mandatory Wheel Setup:** If you want to apply this fix to other vehicles, you must open the specific Chaos Vehicle Wheel Blueprints (Front, Rear, or both depending on your drivetrain - FWD, RWD, AWD). Inside the wheel blueprint, locate the **External Torque Combine Method** and set it to **Additive**. Without this setting, the fix will not work.
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4. Dashboard Display Optimization

The digital speedometer inside the cockpit works by rendering a Widget to a Render Target, which is then applied to the screen via a material. While optimized, you can disable this feature entirely if you do not need the interior display (e.g., for AI cars or strict 3rd-person games).

1. Open **BP_Drivable_Sportscar01**.
 2. In the Details Panel, locate the **UseDisplay** boolean.
 3. Uncheck it to disable the render target update and save performance.
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5. MetaSounds & Audio System

The vehicle uses Unreal Engine's MetaSounds system for audio generation, updated in real-time via the vehicle blueprint.

- **Included Sounds:** Looping real-world engine sounds, skid sounds, and slip sounds, complete with sound attenuation.
 - **Wetness Parameter:** The MetaSound includes a custom **Wetness** parameter generated procedurally via noise functions (no WAV files used). This is not linked to the blueprint by default, but you can manually increase the parameter value inside the MetaSound asset to simulate driving on wet surfaces.
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6. Materials & Customization

The exterior and interior materials are customizable and utilize baked/packed textures for performance.

- **Car Paint:** Open the provided Material Instances (or duplicate them) to change the car's base color.
 - **Dirt System:** Most Material Instances include a **Dirt Intensity** parameter. Increase this value to add dirt to the car's exterior.
 - **Interior Leather:** You can adjust the color of the interior leather directly via its corresponding Material Instance.
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7. Animations & IK

- The vehicle blueprint includes a pre-configured steering wheel animation setup. It uses the default UE5 Mannequin and a Two-Bone IK setup to ensure the character's hands remain accurately attached to the steering wheel while turning.
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8. Support

If you have any questions, please send an email to support@geamgames.com