

# Chair Setup for Carla VR Chair Addon

## YawVR Motion Platform Integration

This project supports **YawVR** motion chairs only. The integration is specifically designed for the **YawVR plugin**, which is directly included in the Carla project's Unreal Engine source. Due to this hardcoded dependency, **other motion platforms are not supported**.

### 1. Plugin and Network Communication

YawVR provides an **official plugin** for Unreal Engine (UE4) with Yaw SDK, enabling real-time two-way communication between the engine and the chair via the **local network**.

It is strongly recommended to follow the **official documentation** available at [yawvr.com](http://yawvr.com) for setup instructions and emulator configuration.

### 2. Emulator for Testing Without Hardware

If you don't have access to the physical YawVR chair, the **YawVR Emulator** can be used for development and testing.

- It simulates the presence of the chair
- Allows validation of the plugin communication
- Can be downloaded from the **YawVR official website**

### 3. Implementation in Carla Project

The motion logic is implemented in the **BP\_MercedesCCC\_VR** Blueprint.

- The integration is based on reading the **vehicle's real-time motion**
- The **function GetRotationFromAxis** inside the blueprint processes the inputs
- These are converted to chair-compatible **Yaw, Pitch, and Roll** values
- The values are then sent over the network to the YawVR chair using the plugin

Blueprint Path:

\Content\Carla\Blueprints\Vehicles\MercedesCCC\_VR

### Notes

- The current system only supports **YawVR**, due to the direct use of its plugin.
- Ensure that Unreal Engine's networking permissions are not blocked by the system firewall.

- Always test with the **YawVR Emulator first**, especially if setting up on a new machine.