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## FRC Software library Installation

*Installation instructions for the Playing with Fusion device support library for the FRC roboRIO.*

### Introduction

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This library supports the Venom motor/controller as well as the CAN enabled Time of Flight sensor. Both online and offline installation is supported. See [the WPILib 3rd party library information page](#) for more information.

### At a Glance

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C++/Java Json URL for online installation:

<https://www.playingwithfusion.com/frc/playingwithfusion2022.json>

### Online C++ and Java driver installation

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The Playing With Fusion (PWF) control library (PlayingWithFusionDriver) can be imported into a robot project directly from Visual Studio Code. The following steps will download the latest version of the driver from the Playing With Fusion website.

1. Click on the WPILib Command Pallet icon on the top right corner of the VS Code window.
2. Select WPILib: Manage Vendor Libraries
3. Then select Install new library (online) and enter the following URL:
  - o <https://www.playingwithfusion.com/frc/playingwithfusion2022.json>
  - o Or for the 2021 roboRIO image:  
<https://www.playingwithfusion.com/frc/playingwithfusion2021.json>
  - o Or for the 2020 roboRIO image:  
<https://www.playingwithfusion.com/frc/playingwithfusion2020.json>
  - o Or for the 2019 roboRIO image:  
<https://www.playingwithfusion.com/frc/playingwithfusion2019.json>
4. Press enter

If everything works, a folder named vendordeps will be created in the root directory of the project and will contain a file named playingwithfusion2022.json.

### Offline C++ and Java driver installation

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The PWF library may also be installed without an internet connection. First, download the latest version of [PlayingWithFusionLibrary2022.zip](#)

Once the driver files are available, perform the following steps:

1. Unzip the PlayingWithFusionDriver zip file to C:\Users\Public\wpilib\2022\ under Windows or ~/wpilib/2022/ under Mac/Linux.
  - o If asked to merge, select yes.

- o This zip file includes the driver libraries (so files), C++ header files, Java source as well as the JSON file which is used by the FRC build system to identify the Playing With Fusion driver.
2. Create a robot project using Visual Studio Code (if one does not already exist)
  3. Click on the WPILib Command Pallet icon on the top right corner of the VS Code window.
  4. Select WPILib: Manage Vendor Libraries
  5. Then select Install new library (offline)
  6. Select PlayingWithFusion

If everything works a folder named vendordeps will be created in the root directory of the project and will contain a file named playingwithfusion.json.

## LabVIEW Driver Installation

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The Venom LabVIEW library may be installed without an internet connection. First, download the latest versions of [libPlayingWithFusionDriver.so](#) and [playing\\_with\\_fusion\\_lib\\_for\\_frc-\\*.vip](#).

Once the driver files are available, preform the following steps:

1. Copy libPlayingWithFusionDriver.so into the /usr/local/frc/third-party/lib folder on the roboRIO. See the [FRC roboRIO SFTP instructions](#) for more details.
2. Double click on the \*.vip file. This will open the LabVIEW Package Manager
3. Click the Install button

## Videos

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PwFusion: Time of Flight and Venom C...



Playing With Fusion smart device setup and configuration

## Related Files

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[playing\\_with\\_fusion\\_lib\\_for\\_frc-2022.1.3.1.vip](#)

FRC LabView Library for 2022 roboRIO image

[PlayingWithFusionLibrary2021.02.24.zip](#)

FRC Library for 2021 roboRIO image

[PlayingWithFusionLibrary2022.01.03.zip](#)

FRC Library for 2022 beta roboRIO image

[PlayingWithFusionLibrary2022.01.12.zip](#)

FRC Library for 2022 roboRIO image

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