

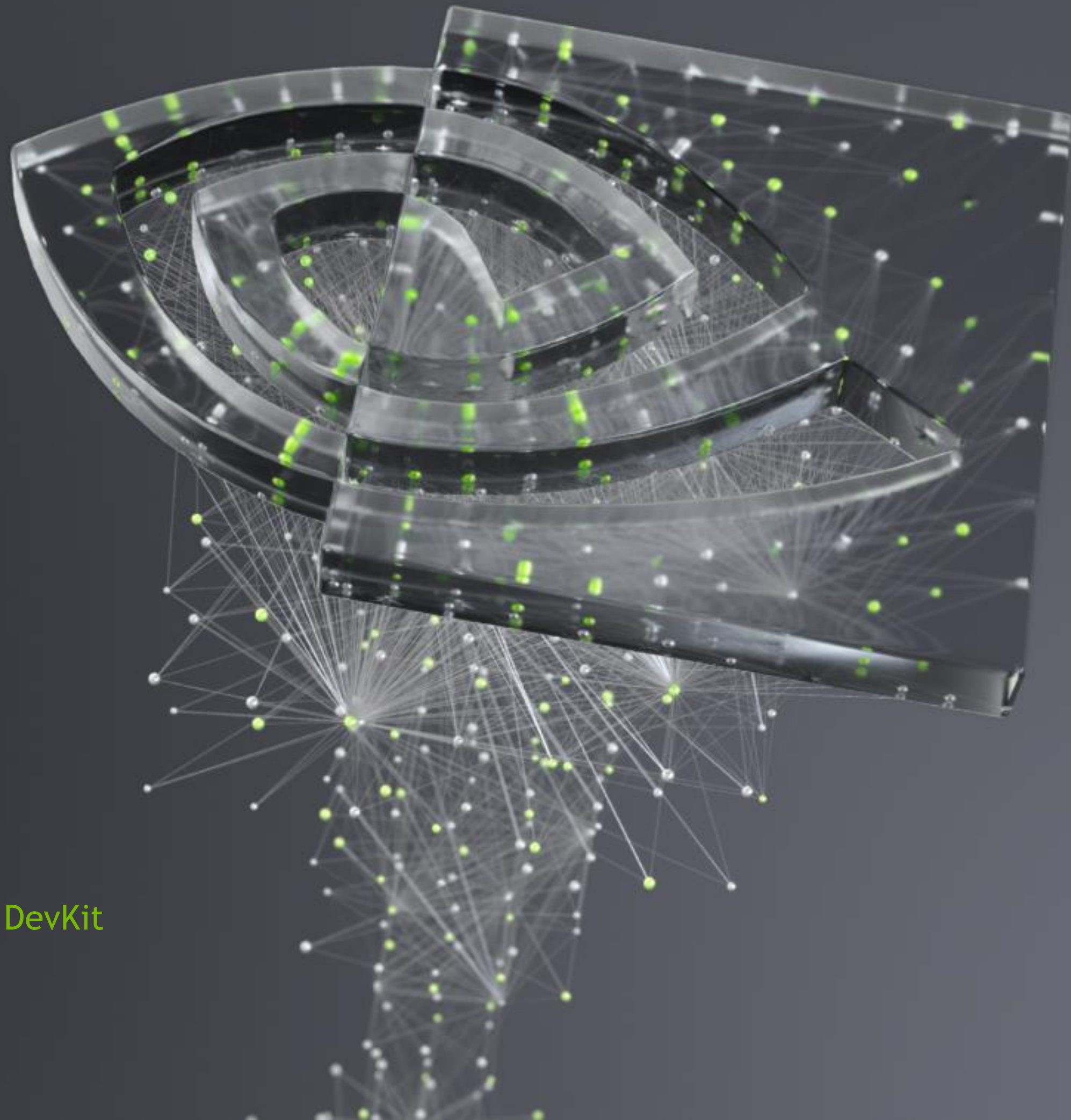


**nVIDIA**®

# GETTING STARTED WITH THE NVIDIA DRIVE AGX DevKit

Congratulations for getting your NVIDIA DRIVE AGX™ DevKit  
Here is how you can get started

Ecosystem Version September 2021



# KEY WEBSITES FOR DRIVE AGX

## Developer Program

Gateway to all online resources

[developer.nvidia.com/drive](https://developer.nvidia.com/drive)

## Docs

Comprehensive documentation

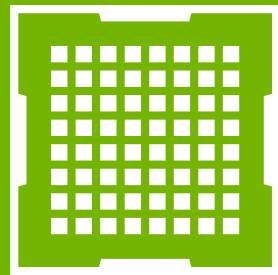
[docs.nvidia.com/drive](https://docs.nvidia.com/drive)  
[developer.nvidia.com/drive/documentation](https://developer.nvidia.com/drive/documentation)

## Forum

Ask questions or browse threads

[forums.developer.nvidia.com/drive-agx](https://forums.developer.nvidia.com/drive-agx)

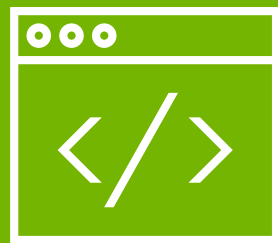
# RESOURCE OVERVIEW



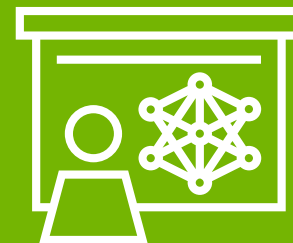
Hardware Setup



Need Help?



SDK



Training



# HARDWARE SETUP

# HARDWARE ERRATA

⚠ Please check the “Hardware Errata” document **BEFORE** unboxing your DevKit

Covers known Hardware Errata for the DRIVE AGX Developer Kit

Requires DRIVE Developer Login

🔒 [Link to “Hardware Errata”](#)

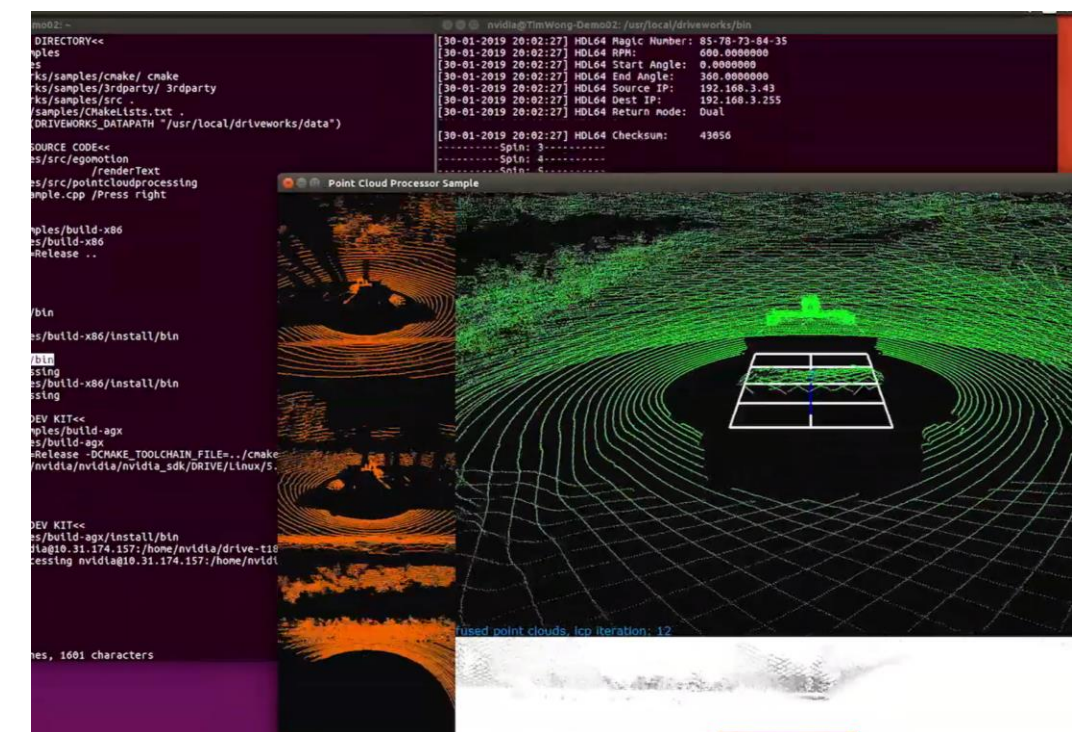


# “HOW TO SET UP” INTRO VIDEO

Covers:

- ▶ Connecting the unit to its peripherals
- ▶ Setup host PC
- ▶ Updating software
- ▶ Sample projects
- ▶ Cross-compilation

[Link to “How to set up” Video \(please scroll down on page\)](#)



# MECHANICAL & INSTALLATION GUIDE

Covers:

- ▶ Mechanical dimensions
- ▶ Mounting considerations
- ▶ Interface connections
- ▶ Environmental requirements
- ▶ Electrical installation

Requires DRIVE Developer Login



[Link to Mechanical & Installation Guide](#)

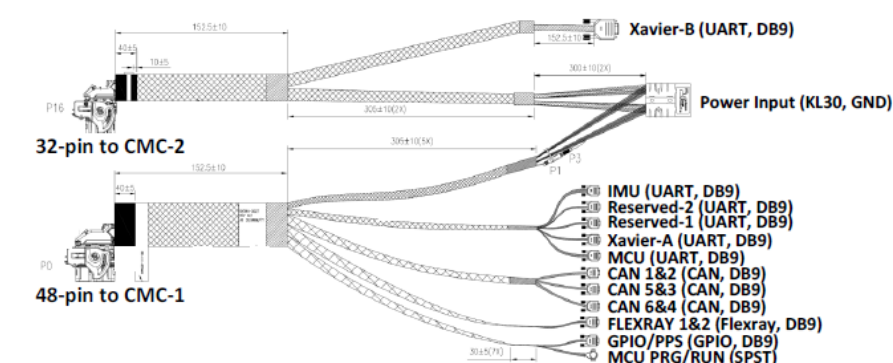
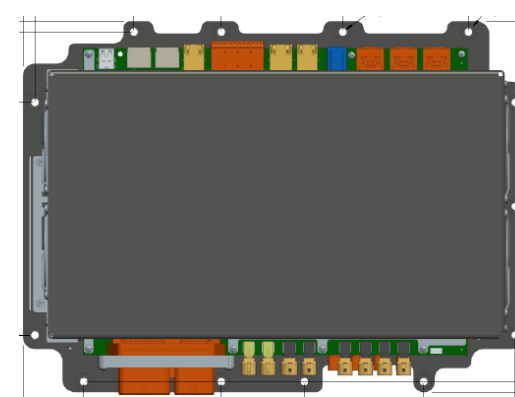
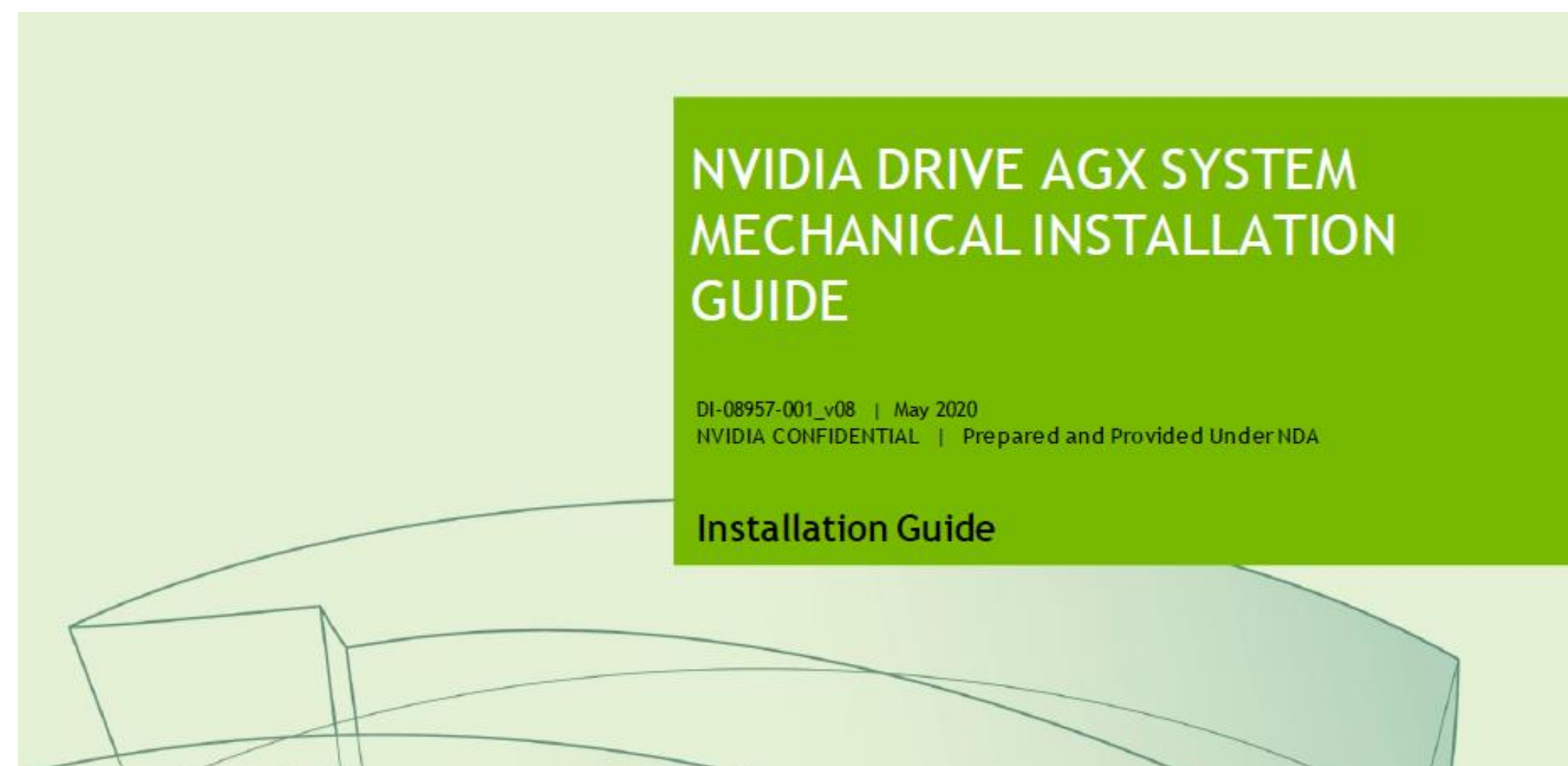
## Additional Development Resources:

Documentation (pdf)

- All NVIDIA DRIVE documentation can be found here: <https://developer.nvidia.com/drive/documentation>
- Quick Start Guide: [🔒📄 DRIVE AGX Developer Kit HW Quick Start Guide \(PDF\)](#)
- Product Brief: [🔒📄 DRIVE AGX Developer Kit Product Brief \(PDF\)](#)
- Mechanical & Installation Guide: [🔒📄 DRIVE AGX Developer Kit Mechanical & Installation Guide \(PDF\)](#)



On [developer.nvidia.com/drive/drive-agx](https://developer.nvidia.com/drive/drive-agx)



# SUPPORTED SENSORS & HW

Hardware for DRIVE AGX that is supported by NVIDIA and our partners

Covers:

- ▶ Cameras
- ▶ Lidars
- ▶ Radars
- ▶ GNSS / IMU devices
- ▶ Accessories

[Link to DRIVE Ecosystem Hardware and Software Components](#)

The screenshot shows the NVIDIA Developer website page for DRIVE Ecosystem Hardware and Software Components. The page features a navigation bar with links for HOME, SOLUTIONS, DOWNLOADS, DOCUMENTATION, TRAINING, and COMMUNITY. Below the navigation bar, there is a section titled "DRIVE Ecosystem Hardware and Software Components" with a sub-header "Cameras". The text explains that these sensors and accessories are available for the NVIDIA DRIVE AGX Platform and are provided by a third-party vendor. A table lists the supported cameras, including their maker/model, sensor, pixel count, CFA, HFOV, and NVIDIA DRIVE SDK support. The table is titled "Lastest Supported Release" and lists four camera models: Sekonix SF3324, Sekonix SF3325, ON Semiconductor AR0144ATSM-GEVK, and Entron F008A120RM0AES.

Home > DRIVE > DRIVE Ecosystem Hardware and Software Components

## DRIVE Ecosystem Hardware and Software Components

HOME SOLUTIONS DOWNLOADS DOCUMENTATION TRAINING COMMUNITY

These sensors and accessories are available for the NVIDIA DRIVE® AGX Platform. Most sensors are provided by a third party vendor who must be contacted for the hardware, software, and associated support.

### Cameras

Please contact the vendor (your NVIDIA representative or third party) specified in the table below for obtaining these camera modules. The software for these specific cameras are integrated into NVIDIA DRIVE SDK and work out-of-the-box. The SDK support section details the latest release that includes camera support. DriveWorks 4.0 will be available in late summer 2021.

The software for NVIDIA-supported cameras includes optimally tuned ISP. Any customizations to this support will require further discussions and development agreements. Please contact your NVIDIA representative.

Camera Maker/Model	Sensor	Pixel Count (MP)	CFA	HFOV (deg)/Lens Part#	NVIDIA DRIVE SDK Support		SW   HW Contact
					DRIVE OS	DriveWorks	
Lastest Supported Release							
Sekonix SF3324	ON Semi - AR0231	2.3	RCCB	120 Sekonix - NA1262	5.2.6 (EOL*)	3.5	NVIDIA   NVIDIA
Sekonix SF3325	ON Semi - AR0231	2.3	RCCB	60Sekonix - NA6062	5.2.6 (EOL*)	3.5	NVIDIA   NVIDIA
ON Semiconductor AR0144ATSM-GEVK[GazeT-144]	ON Semi - AR0144	1	GS-IR	55 LCE - LC001k-0100	5.2.6 (EOL*)	3.5	NVIDIA   NVIDIA
Entron F008A120RM0AES	ON Semi - AR0820	8.3	RGGB	120 LCE - LC862	5.2.6	3.5	NVIDIA**   Entron





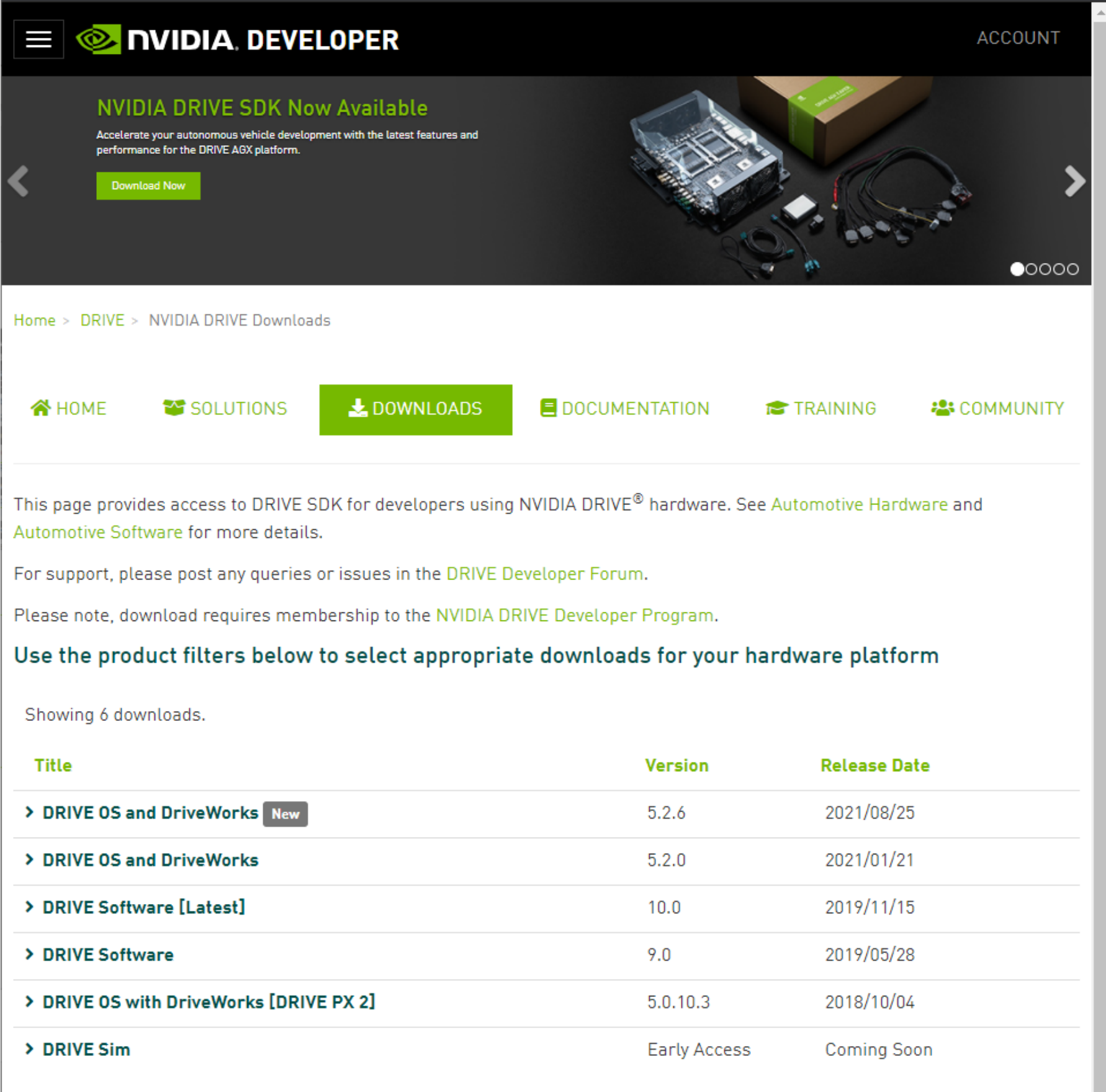
SDK

# DOWNLOADS

Provides access to all relevant SDK releases, including Release Summary, Installation Guides, Release Notes, etc.

**Note:** DRIVE OS 5.2.6 Docker containers are supported in addition to the SDK manager.

[Link to DRIVE Downloads Site](#)  
[Link to Details on NVIDIA DRIVE Platform Docker Containers](#)



The screenshot shows the NVIDIA Developer website's 'Downloads' page for the DRIVE SDK. At the top, there is a navigation bar with the NVIDIA logo and 'NVIDIA DEVELOPER' text, and an 'ACCOUNT' link. Below this is a hero banner for 'NVIDIA DRIVE SDK Now Available' with a 'Download Now' button and an image of the hardware. The main content area has a breadcrumb trail 'Home > DRIVE > NVIDIA DRIVE Downloads' and a navigation menu with 'HOME', 'SOLUTIONS', 'DOWNLOADS' (highlighted), 'DOCUMENTATION', 'TRAINING', and 'COMMUNITY'. The page text explains that the page provides access to DRIVE SDK for developers using NVIDIA DRIVE hardware and provides links to 'Automotive Hardware' and 'Automotive Software' for more details. It also mentions support in the 'DRIVE Developer Forum' and notes that downloading requires membership in the 'NVIDIA DRIVE Developer Program'. A heading states 'Use the product filters below to select appropriate downloads for your hardware platform'. Below this, it says 'Showing 6 downloads.' and a table lists the available downloads.

Title	Version	Release Date
> DRIVE OS and DriveWorks <span>New</span>	5.2.6	2021/08/25
> DRIVE OS and DriveWorks	5.2.0	2021/01/21
> DRIVE Software [Latest]	10.0	2019/11/15
> DRIVE Software	9.0	2019/05/28
> DRIVE OS with DriveWorks [DRIVE PX 2]	5.0.10.3	2018/10/04
> DRIVE Sim	Early Access	Coming Soon

# INSTALLATION GUIDE DOCUMENTATION

Step-by-step guide explaining software installation

Covers:

Overview and terminology

System requirements, required downloads, Update Matrix, valid transition paths

SDK Manager usage: Download, install, repair, uninstall

**New:** Use Docker containers to build with DRIVE SDK

[Link to DRIVE installation Guide Documentation](#)

**NVIDIA**  
DEVELOPER

## DRIVE Platform Installation Guide with NVIDIA SDK Manager

Introduction  
Getting Started: DRIVE OS 5.2.6  
SDK Manager  
Download and Run SDK Manager  
Install DRIVE with SDK Manager  
Alternative Installation  
Install DRIVE Docker Containers from NVIDIA GPU Cloud (NGC)  
Learn More  
Additional Resources

### DRIVE Platform Installation Guide with NVIDIA SDK Manager

**Introduction**  
What is DRIVE AGX? What is DRIVE OS with DriveWorks? Common terminology explained here.

**Getting Started: DRIVE OS 5.2.6**  
Learn about the proper steps for setting up your host machine and target Developer Kit, by using NVIDIA SDK Manager.

### SDK Manager

**Download and Run SDK Manager**  
This section outlines the steps for downloading and installing NVIDIA SDK Manager, as well as how to log in to run it for the first time.

**Install DRIVE with SDK Manager**  
This section is intended to help you use the NVIDIA SDK Manager GUI to successfully configure your DRIVE development environment.

### Alternative Installation

**Install DRIVE Docker Containers from NVIDIA GPU Cloud (NGC)**  
Learn more about our new "Beta" DRIVE OS Docker containers on NVIDIA GPU Cloud.

### Learn More

**Additional Resources**  
This section provides additional information for the NVIDIA DRIVE AGX Developer Kit, such as answers to common problems and error messages.

# SDK MANAGER DOCUMENTATION

Explains the SDK manager in-depth

Useful if there are questions beyond the content on SDK Manager in the Installation Guide Documentation

e.g.

System Requirements

DIRVE Install

Command-Line Install

Offline Install

Docker Images

[Link to NVIDIA SDK Manager Documentation](#)

The screenshot shows the NVIDIA SDK Manager documentation page. The left sidebar contains a navigation menu with the following items: NVIDIA SDK Manager, Introduction, System Requirements, Release Notes and Known Issues, SDK Manager Release Notes, Download and Install, Download and Run SDK Manager, Install DRIVE with SDK Manager, Install Jetson Software with SDK Manager, Install Clara AGX Software with SDK Manager, Install DOCA SDK with SDK Manager, Install Ethernet Switch with SDK Manager, Command-Line Install, Offline Install, Docker Images, Additional Options, SDK Manager Settings, User Account Membership Settings, User Feedback, EULA, and Copyright and License Notices. The main content area is divided into sections: NVIDIA SDK Manager, Introduction, System Requirements, Release Notes and Known Issues, SDK Manager Release Notes, Download and Install, Download and Run SDK Manager, Install DRIVE with SDK Manager, Install Jetson Software with SDK Manager, Install Clara AGX Software with SDK Manager, Install DOCA SDK with SDK Manager, Install Ethernet Switch with SDK Manager, Command-Line Install, Offline Install, and Docker Images. Green arrows point from the left sidebar to the corresponding content sections on the right.

**NVIDIA SDK Manager**

**Introduction**  
NVIDIA SDK Manager is an all-in-one tool that bundles developer software and provides an end-to-end development environment setup solution for NVIDIA SDKs.

**System Requirements**  
Learn about the prerequisite hardware and software to get started with NVIDIA SDK Manager.

**Release Notes and Known Issues**

**SDK Manager Release Notes**  
See the latest features and updates for this version of NVIDIA SDK Manager, as well as current known issues.

**Download and Install**

**Download and Run SDK Manager**  
This section outlines the steps for downloading and installing NVIDIA SDK Manager, as well as how to log in to run it for the first time.

**Install DRIVE with SDK Manager**  
This section is intended to help you use the NVIDIA SDK Manager GUI to successfully configure your DRIVE development environment.

**Install Jetson Software with SDK Manager**  
This section is intended to help you use the NVIDIA SDK Manager GUI to successfully configure your Jetson development environment.

**Install Clara AGX Software with SDK Manager**  
This section is intended to help you use the NVIDIA SDK Manager GUI to successfully configure your Clara AGX development environment.

**Install DOCA SDK with SDK Manager**  
This section is intended to help you use the NVIDIA SDK Manager GUI to successfully configure your DOCA development environment.

**Install Ethernet Switch with SDK Manager**  
This section is intended to help you use the NVIDIA SDK Manager GUI to successfully configure your Ethernet Switch development environment.

**Command-Line Install**  
You can configure your system from the command-line using the parameters detailed in this section.

**Offline Install**  
NVIDIA SDK Manager allows you to download the various components one time, and reuse the components on multiple hosts with no need to re-download.

**Docker Images**  
SDK Manager can be used with Docker images to configure a virtual machine

# DRIVE OS DOCUMENTATION

NVIDIA DRIVE OS is the reference operating system and software stack for developing and deploying AV applications on DRIVE AGX

Important documentation sections:

Host/Target Configuration

Board Setup

Camera Setup

System Software

NVMedia: Media data processing API

[Link to DRIVE OS 5.2.6 Documentation](#)  
[Link to DRIVE Documentation Overview](#)  
[Link to DRIVE OS Website](#)

DRIVE OS

NvMedia    nvStreams    CUDA    TensorRT    Developer Tools

DRIVE AGX DEVELOPER KITS (Xavier/Pegasus)    DRIVE HYPERION DEVELOPER KIT

**NVIDIA**    NVIDIA DRIVE OS 5.2 Linux SDK Developer Guide  
5.2.6 Release

Enter search term or phrase

- Getting Started
  - What is NVIDIA DRIVE OS 5.2?
  - What is NVIDIA DRIVE OS 5.2 SDK?
  - Getting Started with NVIDIA DRIVE OS SDK
  - What is NVIDIA DRIVE OS 5.2 PDK?
- Installing DRIVE OS
  - ▶ Docker User Guide
  - ▶ Platform Software Stacks
  - ▶ Additional Documentation
  - ▶ Host/Target Setup and Configuration
  - ▶ Board Setup
  - ▶ System Programming
  - ▶ Camera Setup and Configuration
  - ▶ MCU Setup and Configuration
  - ▶ Flashing Basics
  - ▶ Flashing Customization
- Virtualization
  - ▶ CAN Realtime Clock
  - ▶ Networking
  - ▶ System Software Components and Interfaces
  - ▶ Displays
  - ▶ NvMedia
  - ▶ Understanding NvMedia

## Getting Started

**Note:** This DRIVE OS 5.2 release may only be used for test and development. The CUDA and TensorRT modules included in DRIVE OS 5.2 software releases are compatible only with Automotive DRIVE AGX platforms. As such, they must only be used with DRIVE OS. These modules must not be used standalone as they are not compatible with other NVIDIA devices.

### What is NVIDIA DRIVE OS 5.2?

NVIDIA DRIVE™ OS 5.2 is the reference operating system and associated software stack designed specifically for developing and deploying autonomous applications on DRIVE AGX-based hardware. NVIDIA DRIVE OS 5.2 delivers a safe and secure execution environment for safety-critical applications, providing services such as secure boot, security services, firewall, and over-the-air updates.

The included foundational software stack consists of a Type-1 Hypervisor, NVIDIA® CUDA® libraries, NVIDIA TensorRT™, NvMedia, and other components optimized to provide direct access to DRIVE AGX hardware acceleration engines.

### What is NVIDIA DRIVE OS 5.2 SDK?

NVIDIA DRIVE™ OS 5.2 Software Development Kit (SDK) is used to develop DRIVE OS 5.2 applications for deployment on NVIDIA DRIVE AGX™ based hardware platforms.

NVIDIA DRIVE™ OS 5.2 SDK consists of all required software, libraries, and tools to build, debug, profile, and deploy applications for autonomous vehicles and self-driving cars across the CPU, GPU and other DRIVE AGX hardware acceleration engines. These development tools provide optimized workflows for parallel computing and deep learning development.

In order to maximize productivity, NVIDIA DRIVE OS 5.2 SDK leverages industry standard tools, technologies, and APIs to provide a familiar and comfortable high-productivity development

# DRIVEWORKS DOCUMENTATION

The DriveWorks SDK provides an extensive set of fundamental capabilities, including processing modules, tools and frameworks for advanced AV development

Important documentation sections:

Getting Started

Modules: Functional Components

Sample Code

Guide for porting from previous releases

[Link to DriveWorks 3.5 Documentation](#)  
[Link to DRIVE Documentation Overview](#)  
[Link to DriveWorks Website](#)

DRIVEWORKS

Sensor Abstraction Image/Point Cloud Processing Vehicle IO DNN Framework Recorder Calibration Egomotion

**NVIDIA**

DriveWorks SDK Reference  
3.5.78 Release  
For Test and Development only

Welcome Getting Started Modules Samples Tools Tutorials SDK Porting Guide DriveWorks API More

Search




## DriveWorks SDK Reference Documentation

Welcome to the *NVIDIA® DriveWorks SDK Reference*.

The NVIDIA® DriveWorks Software Development Kit (SDK) enables developers to implement autonomous vehicle (AV) solutions by providing a comprehensive [library of modules](#), [developer tools](#), and [reference applications](#) that take advantage of the computing power of the NVIDIA DRIVE™ platform.

**Note**  
This DriveWorks SDK release may only be used for test and development.

The following diagram describes the DriveWorks SDK. Click on different points to jump to specific sections.

-  **MODULES**  
Open, modularized library of functions | Optimized for DRIVE AGX
-  **SAMPLES**  
Samples for developing, porting, and optimizing applications
-  **TOOLS**  
Software development tools for Sensors, Data Capture, Calibration, and more



**NEED HELP?**

# GOT STUCK? TRY TO...



## Check Out the [DRIVE OS](#) and [DriveWorks](#) Documentation

Comprehensive documentation that includes many samples that illustrate how to leverage the DRIVE SDK

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## Browse the [Support Forum](#)

The Forum contains 1000+ experiences of other users with answers by our support team. If your question is not already covered – [feel free to raise it](#)

---



## Submit a Bug

Raise a bug and our tech teams will support with information and guidance

---



## Contact your NVIDIA Representative

The issue still persists? Contact your Developer Relations Manager or Account Manager





# DOCUMENTATION OVERVIEW

**Documentation for NVIDIA DRIVE<sup>®</sup> AGX Developer Kit and NVIDIA DRIVE Hyperion<sup>™</sup> Developer Kit**

## DRIVE Hardware

### DRIVE AGX Developer Kit

- [DRIVE AGX Developer Kit Hardware Errata](#)
  - DRIVE Software 10.0 and DRIVE OS 5.2.0 include improvements for some items documented in this Errata. Please immediately update to one of these releases available on [DRIVE Downloads](#).
- [DRIVE AGX Developer Kit Hardware Quick Start Guide \(PDF\)](#)
- [DRIVE AGX Developer Kit Product Brief \(PDF\)](#)
- [DRIVE AGX Developer Kit Mechanical & Installation Guide \(PDF\)](#)

### DRIVE Hyperion Kit

*Requires DRIVE AGX Pegasus running DRIVE Software*

- [DRIVE Hyperion Kit Quick Start Guide \(PDF\)](#)
- [DRIVE Hyperion Hardware Installation Guide \(PDF\)](#)

DRIVE Developer Program Documentation  
(Login & NDA Required)

[Details](#)

<h3>NVIDIA DRIVE Software for DRIVE AGX</h3> <p><i>Note: NVIDIA DRIVE<sup>®</sup> Software requires access to NVIDIA DRIVE Developer Program for DRIVE AGX</i></p> <ul style="list-style-type: none"><li>▼ <a href="#">NVIDIA DRIVE Software 10.0 (latest)</a></li><li>▼ <a href="#">Archives</a></li></ul>	<h3>NVIDIA DRIVE OS for DRIVE AGX</h3> <p><i>Note: NVIDIA DRIVE<sup>®</sup> OS software requires access to NVIDIA NVONLINE</i></p> <ul style="list-style-type: none"><li>▼ <a href="#">NVIDIA DRIVE OS 5.2.6 (latest)</a></li><li>▼ <a href="#">Archives</a></li></ul>
<h3>NVIDIA DRIVE OS and DriveWorks for DRIVE AGX</h3> <p><i>Note: NVIDIA DRIVE OS and DriveWorks require access to NVIDIA DRIVE AGX SDK Developer Program</i></p> <ul style="list-style-type: none"><li>▼ <a href="#">NVIDIA DRIVE OS 5.2.6 and DriveWorks 4.0 (latest)</a></li><li>▼ <a href="#">NVIDIA DRIVE OS 5.2.0 and DriveWorks 3.5 (latest)</a></li><li>▼ <a href="#">Archives</a></li></ul>	<h3>NVIDIA DRIVE OS with DriveWorks for DRIVE PX 2</h3> <p><i>Note: NVIDIA DRIVE OS software requires access to NVIDIA DRIVE Developer Program for DRIVE PX 2</i></p> <ul style="list-style-type: none"><li>▼ <a href="#">NVIDIA DRIVE OS 5.0.10.3 (latest)</a></li><li>▼ <a href="#">Archives</a></li></ul>

DRIVE SDK Documentation  
(No Login Required)

[Details](#)



# DRIVE DEVELOPER PROGRAM DOCUMENTATION (LOGIN & NDA REQUIRED)

Developer program documentation in-depth

Highlights:

HW Errata	<a href="#">Details</a>
HW Quick Start Guide	<a href="#">Link</a>
Mechanical & Installation Guide	<a href="#">Details</a>
Supported Sensors & Accessories	<a href="#">Details</a>
DRIVE OS Release Notes	<a href="#">Link</a>
DRIVE OS & DriveWorks Documentation	<a href="#">Details</a>

[Link to Developer Kit Documentation](#)

**Documentation for NVIDIA DRIVE<sup>®</sup> AGX Developer Kit and NVIDIA DRIVE Hyperion<sup>™</sup> Developer Kit**

### DRIVE Hardware

#### DRIVE AGX Developer Kit

- [DRIVE AGX Developer Kit Hardware Errata](#)
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- [DRIVE AGX Developer Kit Product Brief \(PDF\)](#)
- [DRIVE AGX Developer Kit Mechanical & Installation Guide \(PDF\)](#)

#### DRIVE Hyperion Kit

*Requires DRIVE AGX Pegasus running DRIVE Software*

- [DRIVE Hyperion Kit Quick Start Guide \(PDF\)](#)
- [DRIVE Hyperion Hardware Installation Guide \(PDF\)](#)

#### Accessories and sensors

- [DRIVE Ecosystem Hardware and Software Components](#)

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### New DRIVE OS 5.2.6 and DriveWorks 4.0 (Linux)

- [DRIVE OS 5.2.6 Release Blog](#)
- [DRIVE OS 5.2.6 Installation Guide](#)
- [DRIVE OS 5.2.6 Release Notes \(PDF\)](#)
- [DRIVE OS Third Party Software Licenses \(PDF\)](#)
- [DRIVE OS Documentation](#)
- DriveWorks 4.0 will be available in late summer 2021.

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### DRIVE OS 5.2.0 and DriveWorks 3.5 (Linux)

- [DRIVE OS and DriveWorks Release Blog](#)
- [DRIVE OS and DriveWorks Documentation](#)
- [DRIVE OS Installation Guide](#)
- [DRIVE OS Release Notes \(PDF\)](#)
- [DRIVE OS Third Party Software Licenses \(PDF\)](#)



# DRIVE SDK DOCUMENTATION

## (No Login Required)

Collection of relevant software documentation

Covers:

DRIVE Software  
(Includes DRIVE AV and DRIVE IX)

DRIVE OS  
DriveWorks

[Link to DRIVE SDK Documentation](#)

## NVIDIA DRIVE AGX and DRIVE PX 2 Developer Kit Documentation

### NVIDIA DRIVE Software for DRIVE AGX

*Note: NVIDIA DRIVE® Software requires access to NVIDIA DRIVE Developer Program for DRIVE AGX*

▼ NVIDIA DRIVE Software 10.0 (latest)

▼ Archives

### NVIDIA DRIVE OS for DRIVE AGX

*Note: NVIDIA DRIVE® OS software requires access to NVIDIA NVONLINE*

▼ NVIDIA DRIVE OS 5.2.6 (latest)

▼ Archives

### NVIDIA DRIVE OS and DriveWorks for DRIVE AGX

*Note: NVIDIA DRIVE OS and DriveWorks require access to NVIDIA DRIVE AGX SDK Developer Program*

▼ NVIDIA DRIVE OS 5.2.6 and DriveWorks 4.0 (latest)

▼ NVIDIA DRIVE OS 5.2.0 and DriveWorks 3.5 (latest)

▼ Archives

### NVIDIA DRIVE OS with DriveWorks for DRIVE PX 2

*Note: NVIDIA DRIVE OS software requires access to NVIDIA DRIVE Developer Program for DRIVE PX 2*

▼ NVIDIA DRIVE OS 5.0.10.3 (latest)

▼ Archives



# DRIVE SDK DOCUMENTATION

(No Login Required)

Collection of relevant software documentation

Covers:

DRIVE OS  
DriveWorks

[Link to DRIVE SDK Documentation](#)

## NVIDIA DRIVE OS and DriveWorks for DRIVE AGX Documentation

<p><b>NVIDIA DRIVE Software for DRIVE AGX</b></p> <p><i>Note: NVIDIA DRIVE® Software requires access to NVIDIA DRIVE Developer Program for DRIVE AGX</i></p> <ul style="list-style-type: none"> <li>▼ NVIDIA DRIVE Software 10.0 (latest)</li> <li>▼ Archives</li> </ul>	<p><b>NVIDIA DRIVE OS for DRIVE AGX</b></p> <p><i>Note: NVIDIA DRIVE® OS software requires access to NVIDIA NVONLINE</i></p> <ul style="list-style-type: none"> <li>▼ NVIDIA DRIVE OS 5.2.6 (latest)</li> <li>▼ Archives</li> </ul>
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# SUPPORT FORUM

The Forum contains **1000+ experiences** of other users with answers by our support team; If your question is not already covered – **feel free to raise it**

The Forum team usually **replies within 24h**

Raising questions in the Forum requires Developer Login

[Link to DRIVE AGX Forum](#)

**NVIDIA DEVELOPER** HOME BLOG FORUMS DOCS DOWNLOADS TRAINING **Felix**

SOLUTIONS PLATFORMS RESOURCES

Home > DRIVE > NVIDIA DRIVE - Community

## NVIDIA DRIVE - Community

HOME SOLUTIONS DOWNLOADS DOCUMENTATION TRAINING **COMMUNITY**

### FAQ

Refer to our comprehensive DRIVE FAQ for answers to common questions about the DRIVE platform, including technical specifications, comparisons, and links to guides and resources.

[Read FAQ](#)

### Forum

You've got questions. The community has answers. Visit our forum to engage with other developers on the DRIVE platform.

[Visit Forum](#)

**NVIDIA** HOME BLOG **FORUMS** DOCS DOWNLOADS TRAINING

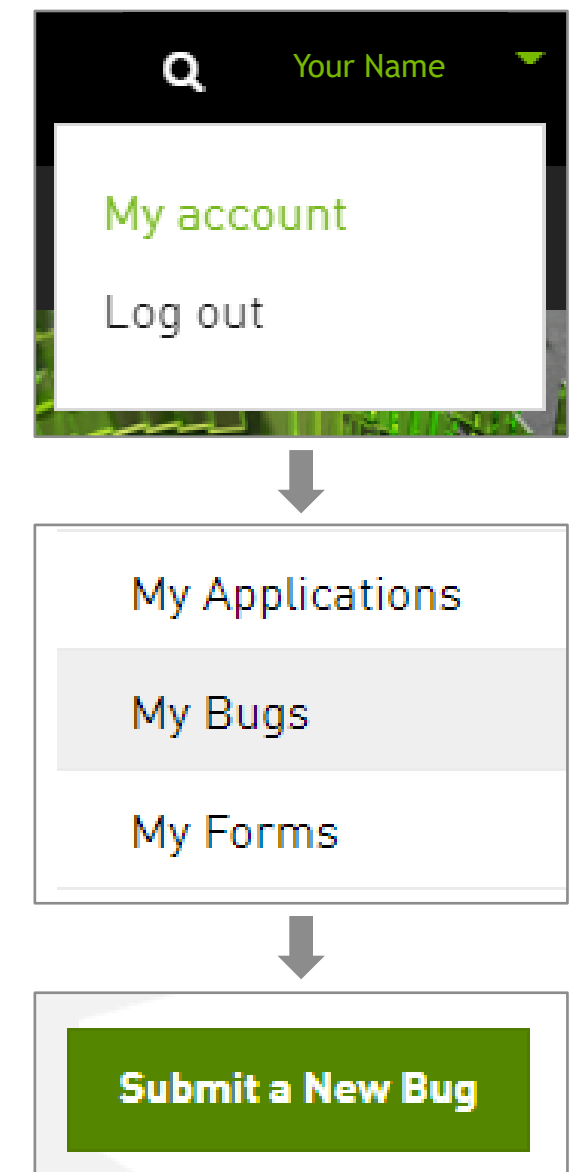
Topic	Replies	Views	Activity
CAN errors with a specific CAN frame DRIVE AGX General drivesos-can	9	99	4h
BroadR-Reach connection to Drive AGX DRIVE AGX General drive-hardware-setup	8	262	5h
Nvmimg_cc in a GMSL2 setup, AGX GMSL2 deserializer configuration example DRIVE AGX General drivesos-nvmedia	11	69	8h
OpenCV on DRIVE AGX Xavier DRIVE AGX General opencv	4	50	10h
Sf3322 and sf3323 cameras require custom plugin? DRIVE AGX General drivesos-nvmedia	3	27	10h



# IF FORUM CAN'T HELP

## Report a Bug

- ▶ Reporting a Bug on NVIDIA Developer (aka DevZone) for confidential content
- ▶ Login to [developer.nvidia.com/drive](https://developer.nvidia.com/drive)
- ▶ In upper right, click the down arrow by Hello, <your name>
- ▶ Select My Account
- ▶ In the left navigation menu, select My Bugs
- ▶ Select Submit a New Bug (in upper right green box, or within text of bounded green box)
- ▶ Fill in the details of your feedback, request or issue
- ▶ IMPORTANT:
  - ▶ When Filing a Bug, be sure to include the Platform Name – e.g., [DRIVE PX 2] OR [DRIVE AGX Xavier | Pegasus] in the Summary, and
  - ▶ Select DRIVE [ Autonomous Driving] for Relevant Area
- ▶ If you have any issues, please contact [InfoDRIVEPX@nvidia.com](mailto:InfoDRIVEPX@nvidia.com)
- ▶ Request: Create one bug per issue: do not file multiple issues in the same report





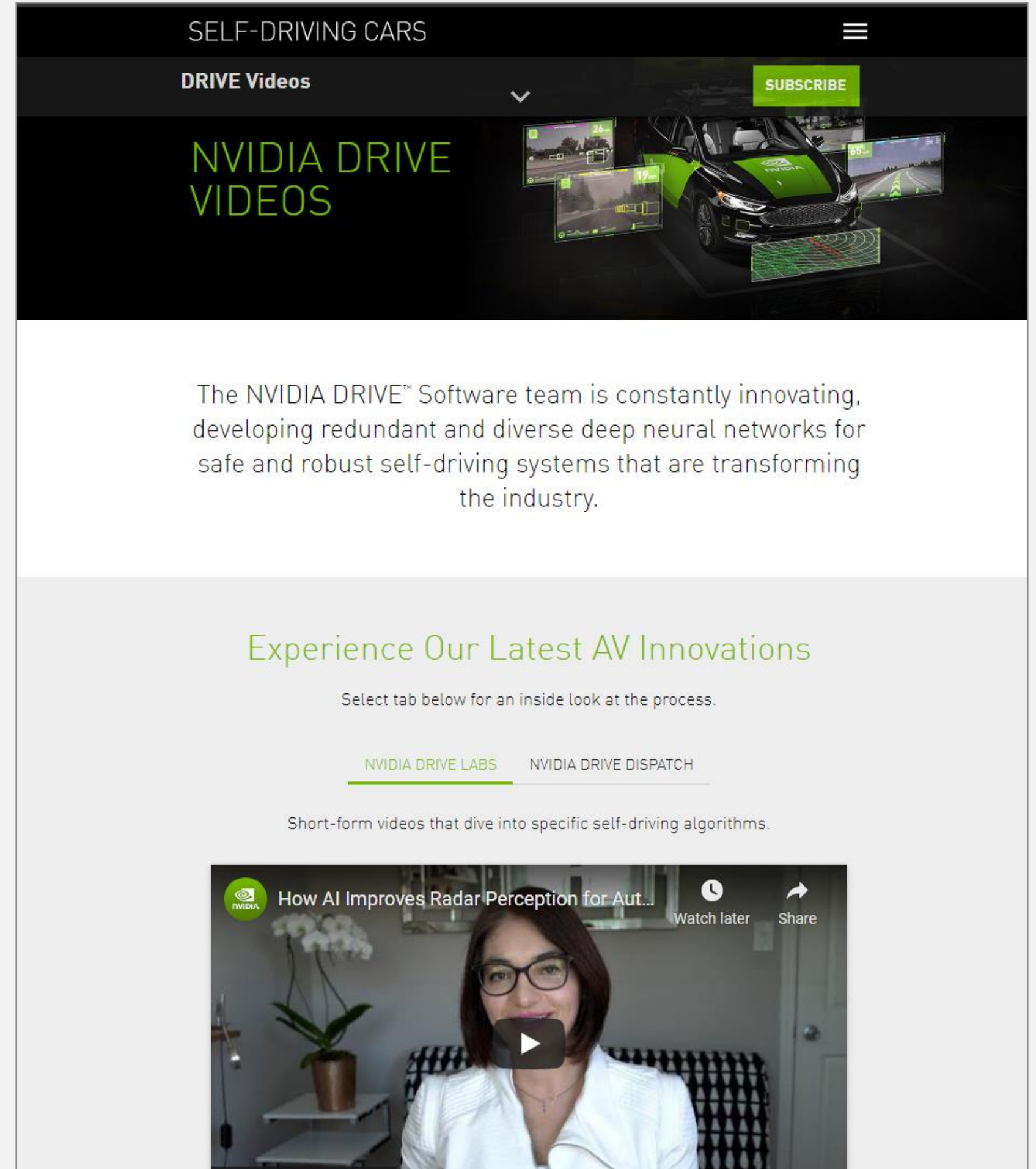
**TRAINING**

# DRIVE VIDEOS

There are numerous videos that showcase applications that can be developed on top of the DRIVE platform

- ▶ **DRIVE Labs videos** are short-form videos that dive into specific self-driving algorithms
- ▶ **DRIVE Dispatch videos** provide Brief updates from our AV fleet, highlighting new breakthroughs

[Link to DRIVE Videos](#)



The screenshot shows the YouTube channel page for NVIDIA DRIVE. At the top, there is a navigation bar with "SELF-DRIVING CARS" and a menu icon. Below that, "DRIVE Videos" is displayed with a dropdown arrow and a "SUBSCRIBE" button. The main header features the text "NVIDIA DRIVE VIDEOS" in green, accompanied by a 3D rendering of a car with various sensor and perception overlays. Below the header, a paragraph states: "The NVIDIA DRIVE™ Software team is constantly innovating, developing redundant and diverse deep neural networks for safe and robust self-driving systems that are transforming the industry." A section titled "Experience Our Latest AV Innovations" includes a tabbed interface with "NVIDIA DRIVE LABS" selected and "NVIDIA DRIVE DISPATCH" as an alternative. A description below the tabs reads: "Short-form videos that dive into specific self-driving algorithms." At the bottom, a video player is shown with the title "How AI Improves Radar Perception for Aut..." and a play button overlay. The video player interface includes "Watch later" and "Share" options.



# WEBINARS

Click here to unfold Webinar list

15+ Video-Webinars on all relevant topics

Requires NVIDIA Developer Login

[Link to Webinars](#)

## Webinars

### Upcoming Webinars

Register for upcoming automotive developer webinars to learn more about the NVIDIA DRIVE® platform.

In each hour-long session, NVIDIA experts will dive into the details of various aspects of the end-to-end AV computational pipeline and will be available for live Q&A.

#### Point Cloud Processing on DriveWorks

Wednesday, August 25, 2021, 9:00 AM PDT | 6:00 PM PDT

[Register Now](#)

Point cloud processing is a key component for autonomous vehicle (AV) obstacle perception, mapping, localization and planning algorithms. The [NVIDIA DriveWorks SDK](#) contains a collection of CUDA-accelerated low level point cloud processing modules optimized for NVIDIA DRIVE AGX platforms. These modules include core algorithms that AV developers working with point-cloud representations need, such as accumulation and registration.

As with the rest of the DriveWorks SDK, these modules expose well-defined APIs and data structures. This enables developers to integrate modules with their own software stack, reducing custom code and development time.

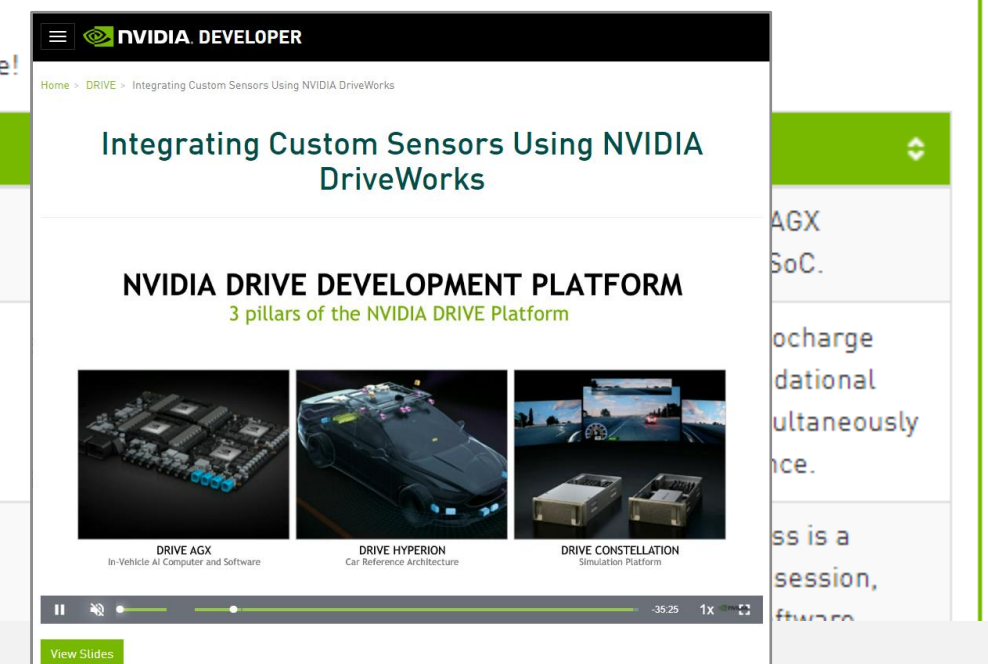
Check out the [Past Webinars](#) to learn more about the NVIDIA DRIVE Platform.

### Past Webinars [\(Click to toggle open/close\)](#)

Files marked with a  require membership to the NVIDIA DRIVE Developer Program for DRIVE AGX. To request access to this developer program, [contact us](#).

Catchup on the past DRIVE webinars recording at your own convenience!

Title	Solutions
<a href="#">DRIVE AGX Hardware Update with NVIDIA Orin</a>	DRIVE AGX
<a href="#">Turbocharge Autonomous Vehicle Development with DRIVE OS and DriveWorks</a>	DRIVE OS DriveWorks
<a href="#">DRIVE AV Perception Overview</a>	DRIVE Perception

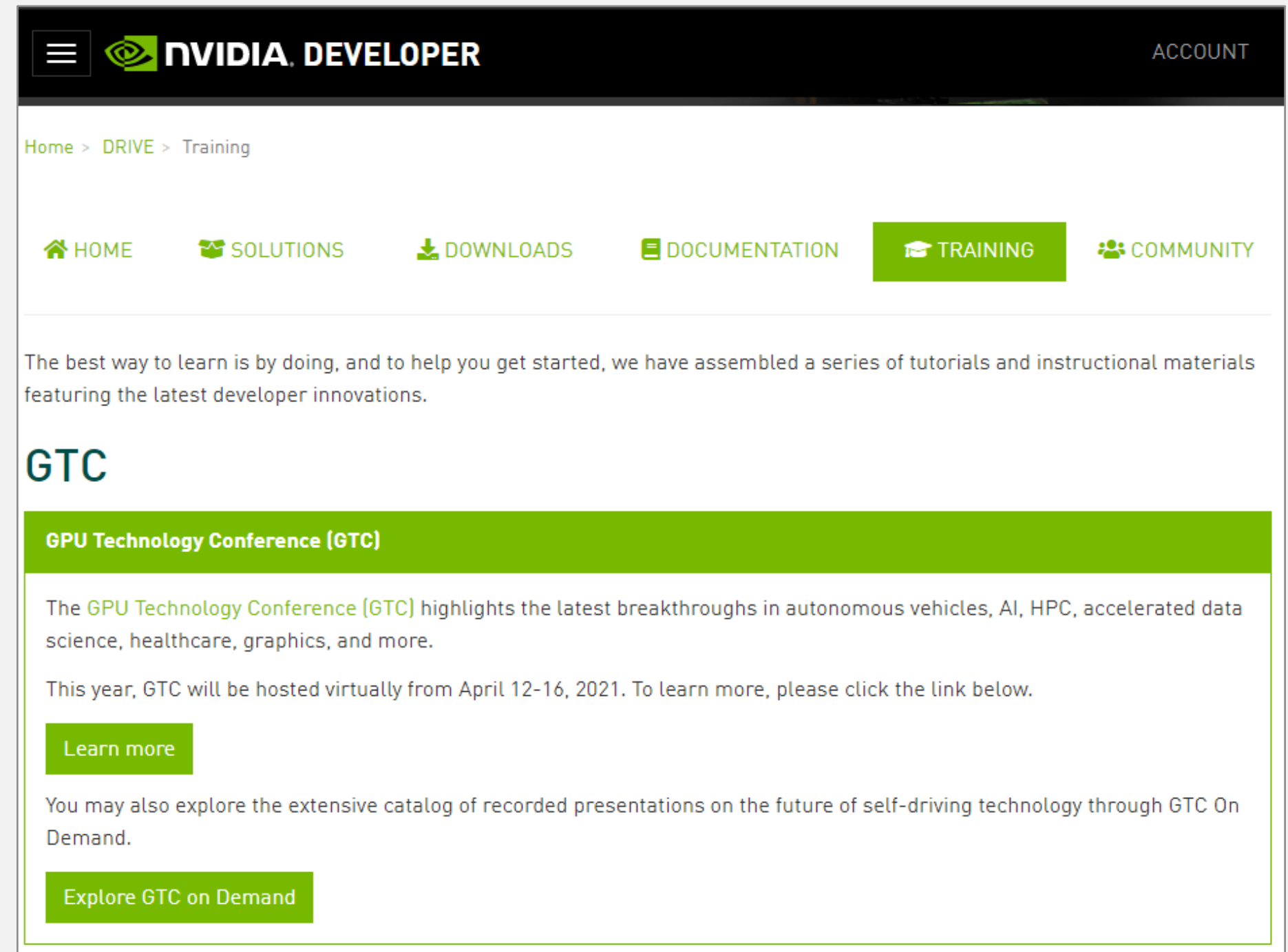


The screenshot shows a video player interface for a webinar. The slide content includes the NVIDIA Developer logo, a breadcrumb trail 'Home > DRIVE > Integrating Custom Sensors Using NVIDIA DriveWorks', and the main title 'Integrating Custom Sensors Using NVIDIA DriveWorks'. Below this is a section for the 'NVIDIA DRIVE DEVELOPMENT PLATFORM' with the subtitle '3 pillars of the NVIDIA DRIVE Platform'. Three images illustrate the pillars: 'DRIVE AGX In-Vehicle AI Computer and Software', 'DRIVE HYPERION Car Reference Architecture', and 'DRIVE CONSTELLATION Simulation Platform'. The video player controls at the bottom show a progress bar at 39:25, a 1x zoom level, and a 'View Slides' button.

# GTC SESSIONS

- ▶ Throughout the GPU Technology Conference (GTC)
- ▶ Relevant research such as state-of-the-art algorithms are showcased
- ▶ Customers show their work on top of the DRIVE platform
- ▶ The NVIDIA DRIVE® team provides update on the DRIVE hardware and software

[Link to GTC sessions](#)

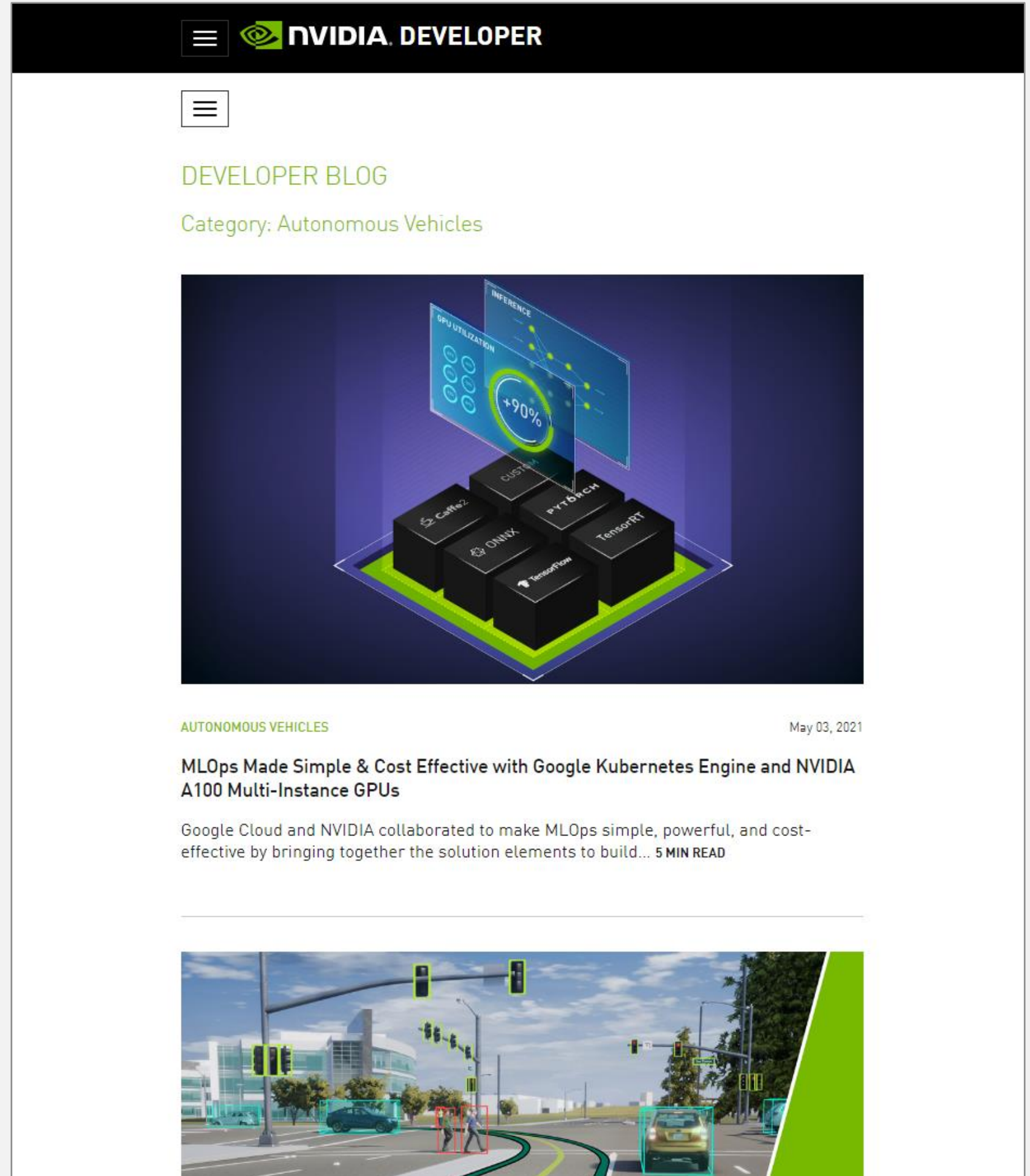


The screenshot shows the NVIDIA Developer website. At the top, there is a navigation bar with the NVIDIA logo and the text "NVIDIA DEVELOPER" on the left, and "ACCOUNT" on the right. Below the navigation bar, there is a breadcrumb trail: "Home > DRIVE > Training". A secondary navigation bar contains icons and labels for "HOME", "SOLUTIONS", "DOWNLOADS", "DOCUMENTATION", "TRAINING" (which is highlighted in green), and "COMMUNITY". The main content area features a paragraph: "The best way to learn is by doing, and to help you get started, we have assembled a series of tutorials and instructional materials featuring the latest developer innovations." Below this is a section titled "GTC" with a green header "GPU Technology Conference (GTC)". The text in this section reads: "The GPU Technology Conference (GTC) highlights the latest breakthroughs in autonomous vehicles, AI, HPC, accelerated data science, healthcare, graphics, and more." It continues: "This year, GTC will be hosted virtually from April 12-16, 2021. To learn more, please click the link below." There is a green button labeled "Learn more". Below that, it says: "You may also explore the extensive catalog of recorded presentations on the future of self-driving technology through GTC On Demand." There is another green button labeled "Explore GTC on Demand".

# DEVELOPER BLOG

The blog contains articles that explore a variety of technical topics such as “Cross-Compiling Robot Operating System Nodes for NVIDIA DRIVE AGX™” or “Accelerating Lidar for Robotics with NVIDIA CUDA-based PCL”

[Link to Developer Blogs](#)



The screenshot shows the NVIDIA Developer website interface. At the top is a black navigation bar with the NVIDIA logo and the text "NVIDIA DEVELOPER". Below this is a white header area with a hamburger menu icon on the left, followed by the text "DEVELOPER BLOG" and "Category: Autonomous Vehicles". The main content area features a large 3D-style illustration of software blocks labeled "Caffe2", "ONNX", "TensorFlow", "PyTorch", and "TensorRT" on a green base. Above these blocks are two floating panels: one labeled "GPU UTILIZATION" showing a "+90%" increase and another labeled "INFERENCE". Below the illustration, the article title "MLOps Made Simple & Cost Effective with Google Kubernetes Engine and NVIDIA A100 Multi-Instance GPUs" is displayed, along with the date "May 03, 2021" and a "5 MIN READ" indicator. At the bottom of the page, there is a wide image showing a street scene with autonomous vehicle perception overlays, including bounding boxes around cars and pedestrians, and a green triangular graphic element on the right side.

# DEEP LEARNING INSTITUTE (DLI) COURSES

Numerous self-paced and instructor-led courses,  
Some recommendations:

- ▶ [Integrating Sensors with NVIDIA DRIVE®](#)
- ▶ [Fundamentals of Accelerated Computing with CUDA C/C++](#)
- ▶ [Optimization and Deployment of TensorFlow Models with TensorRT](#)
- ▶ [Deep Learning at Scale with Horovod](#)

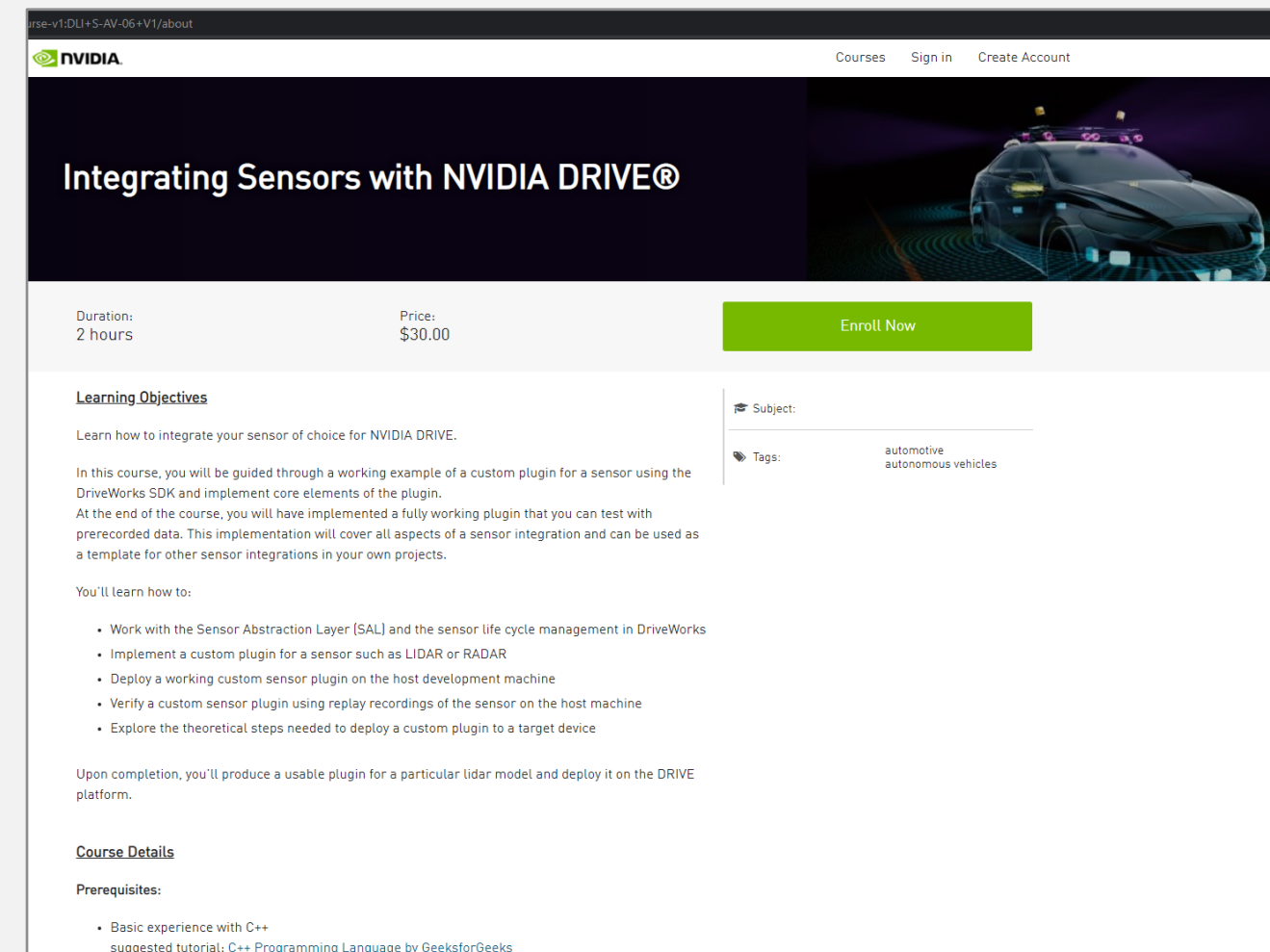
[Link to Deep Learning Institute](#)

[Link to Integrating Sensors with NVIDIA DRIVE courses](#)

[Link to Course Catalog PDF](#)



The screenshot shows the top section of the Deep Learning Institute website. At the top, the text "DEEP LEARNING INSTITUTE" is displayed in white on a black background. Below this, the heading "Explore DLI Solutions" is centered in white. There are two main promotional cards. The left card features an image of a person wearing a headset working at a laptop, with the text "Self-Paced, Online Courses" and a green button labeled "Start learning >". The right card features an image of a person talking to a laptop, with the text "Live Instructor-Led Workshops" and a green button labeled "Explore live workshop offerings >".



The screenshot shows a course page on the NVIDIA website. At the top, the NVIDIA logo is on the left, and "Courses Sign in Create Account" is on the right. The main heading is "Integrating Sensors with NVIDIA DRIVE®" next to an image of a car with sensor beams. Below the heading, the course details are shown: "Duration: 2 hours" and "Price: \$30.00" on the left, and a green "Enroll Now" button on the right. The "Learning Objectives" section includes a description of the course and a list of five bullet points: "Work with the Sensor Abstraction Layer (SAL) and the sensor life cycle management in DriveWorks", "Implement a custom plugin for a sensor such as LIDAR or RADAR", "Deploy a working custom sensor plugin on the host development machine", "Verify a custom sensor plugin using replay recordings of the sensor on the host machine", and "Explore the theoretical steps needed to deploy a custom plugin to a target device". The "Course Details" section includes a "Prerequisites" list with one item: "Basic experience with C++" and a suggested tutorial: "C++ Programming Language by GeeksforGeeks".

