

Contents

DJI EDUCATION HUB USER GUIDE	2
1. Using DJI Education Hub Desktop Version	2
1.1 DJI Education Hub Desktop Overview	2
1.2 Events.....	3
1.3 DJI Robotic Simulator	5
2. Common Issues.....	12

DJI EDUCATION HUB USER GUIDE

1. Using DJI Education Hub Desktop Version

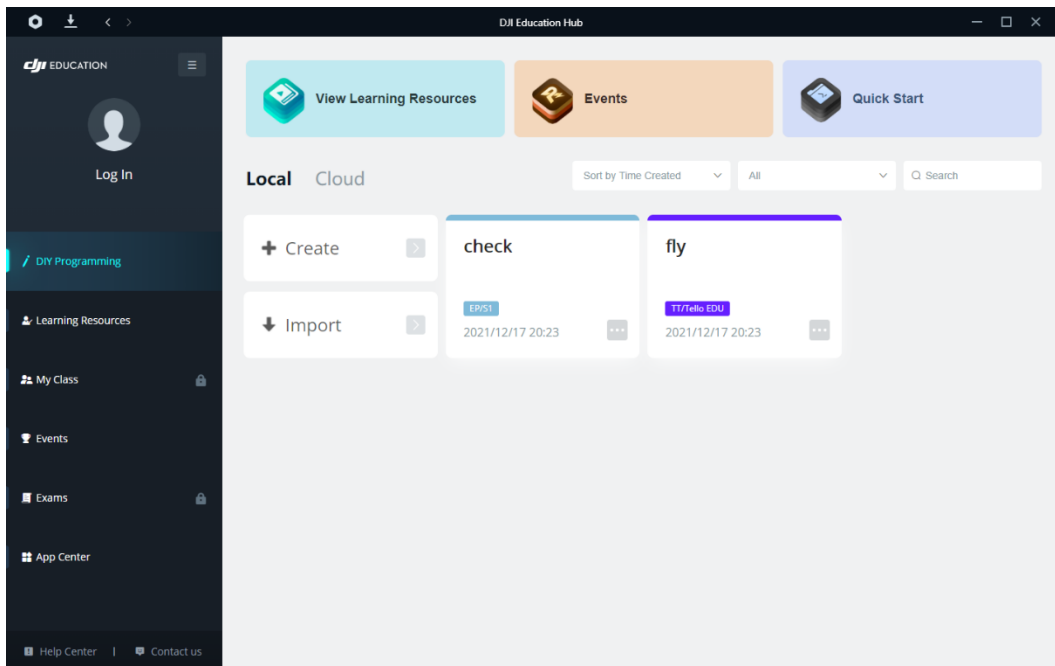
Important Note:

1. DJI Education Hub Desktop version only supports Windows 64bit operating system
2. DJI Robotic Simulator can only be used via DJI Education Hub Desktop version.
3. Refer to <https://edu.dji.com/docs> for information on DJI Education Hub.

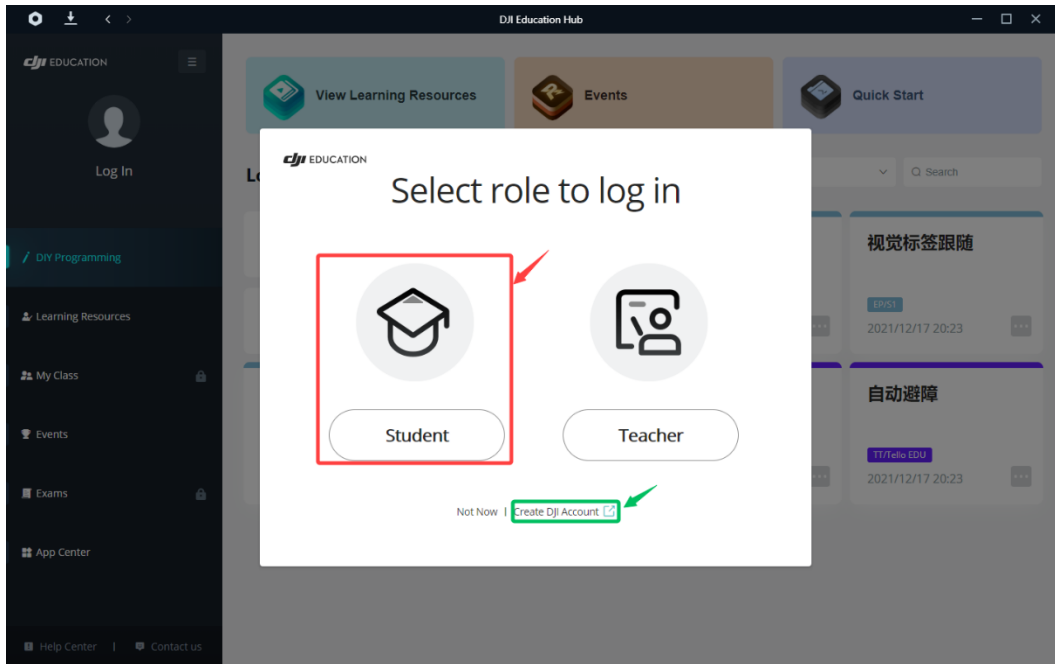
1.1 DJI Education Hub Desktop Overview

DJI Education Hub comprises of [DIY Programming], [Learning Resources], [Events] and [App Center]. Other modules are only available for other licenses.

- **【DIY Programming】** : For creating and block programming of RoboMaster robots and drones.
- **【Learning Resources】** : This module contains all learning resources and videos. The content varies for student and teacher accounts.
- **【Events】** : This module lists all activities including challenges. Logon users can register for challenges using this module.
- **【App Center】** : Users can download, activate and update other DJI Education software such as DJI Robotics Simulator, RoboMaster App, RoboMaster Champion and RoboMaster Assistant.



- Click on [Log In] at the top left corner to logon into DJI Education Hub. Select the role to login: Student or Teacher. Click “Create DJI account” if you do not have a DJI Education Hub account.



1.2 Events

Note: After you have registered for a challenge, the challenge simulation can only be accessed via Events modules. Challenge simulation cannot be accessed using Robotic Simulator.

- Click on [Join] of respective challenge card to access challenge simulation.

DJI Education Hub
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- 👥 My Class
- 🔔 Events
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Events
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All

All

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RoboMaster Singapore Online Challenge-Intelligent Transportation(Student)

Event Date: 2022-02-07 06:00 ~ 2022-03-31 18:00 | Sponsor: SZ DJI Technology Co., Ltd and 65Drones Pte Ltd

This Challenge uses virtual simulation robots to simulate intelligent public transportation system (roads, traffic lights, bus stop signs, etc.) in the city. The simulation environment allows students to participate and experience the application of coding in autonomous driving scenarios, and expand students' cognition of cutting-edge autonomous driving issues through graphical programming.

[Learn more](#)

Auto Check

View Event Details

Join

Notification

RoboMaster Singapore Online Challenge-Intelligent Transportation(Mentor)

Event Date: 2022-02-07 06:00 ~ 2022-03-31 18:00 | Sponsor: SZ DJI Technology Co., Ltd and 65Drones Pte Ltd

This Challenge uses virtual simulation robots to simulate intelligent public transportation system (roads, traffic lights, bus stop signs, etc.) in the city. The simulation environment allows students to participate and experience the application of coding in autonomous driving scenarios, and expand students' cognition of cutting-edge autonomous driving issues through graphical programming.

[Learn more](#)

Auto Check

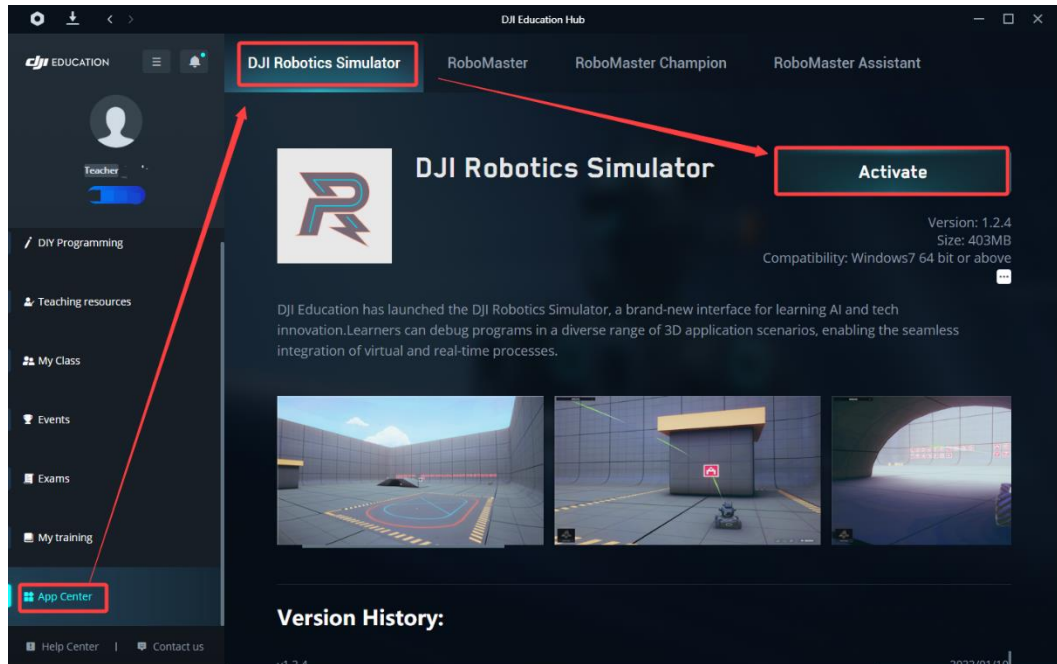
View Event Details

Join

Notification

1.3 DJI Robotic Simulator

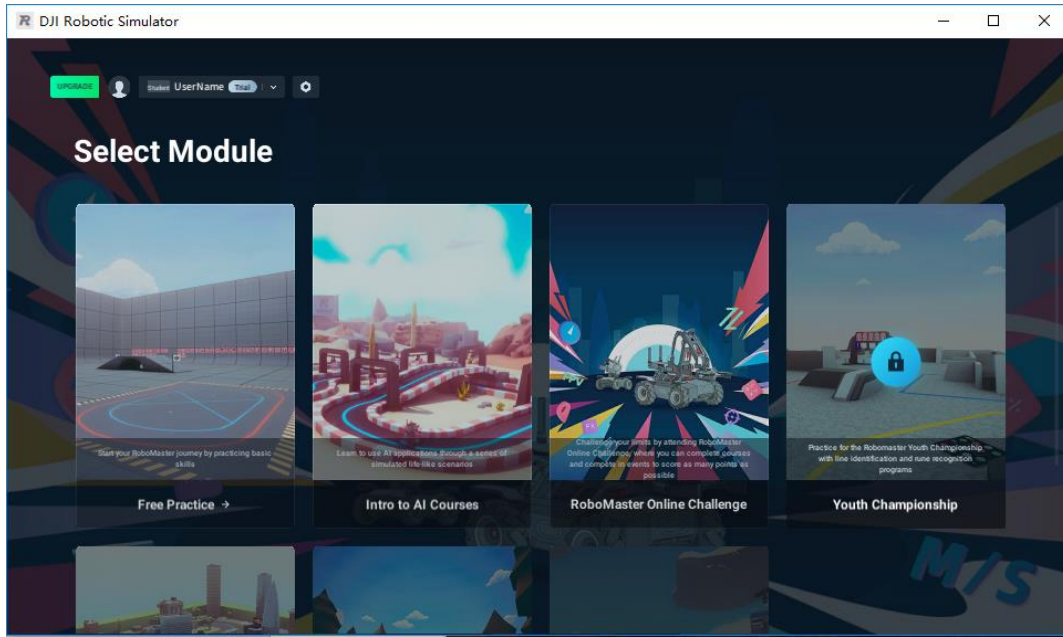
After installed DJI Education Hub Desktop version, install Robotic Simulator by clicking [App Center]-> [DJI Robotic Simulator] -> [Download]. Activate DJI Robotic Simulator by clicking [App Center] -> [DJI Robotic Simulator] -> [Activate].



1.3.1 DJI Robotic Simulator Overview

Access the following robotic simulation:

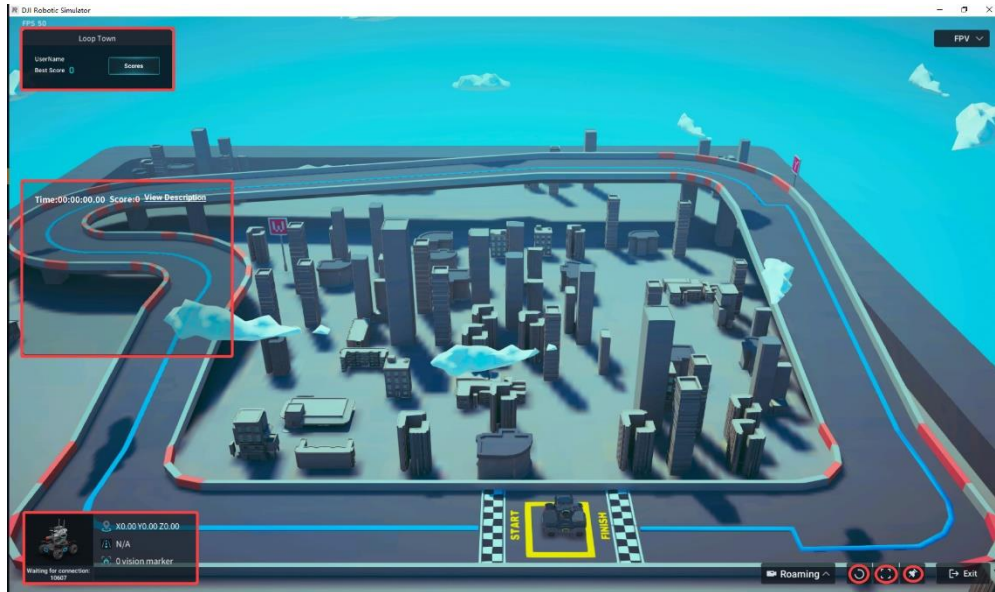
- Free practise: Scenario for simulating basic coding of RoboMaster EP.
- Intro to AI Courses: AI scenarios for simulating AI coding of RoboMaster EP.
- Online Challenge: Scenario of past Online challenges.
- **【Youth Championship】** : Simulated environment of RoboMaster Youth Championship Arena.
- **【AI- Intelligent Transportation】** : Intelligent Transportation scenario.
- **【AI- Nuclear Power Plant Rescue】** : Nuclear Power Plant Rescue scenario.



1.3.2 Robotic Simulator Basic Usage guide.

A Robotic Simulator scenario interface consists of:

- **【Basic information panel】** : Display information about the challenge and score overview;
- **【Detail score panel】** : Display score details of current round. Click on **【Challenge Details】** link to see challenge overview and details;
- **【Robotic Equipment Information Panel】** : Display current position of RoboMaster, detected marker and line information;
- **【Fast Access Buttons】** : Reset Module and Location – Reset robots to start position. Auto Full Screen – Auto hide fast access buttons. Lock to Top of Screen – Keep robotic simulator on the top of all windows:



- Others

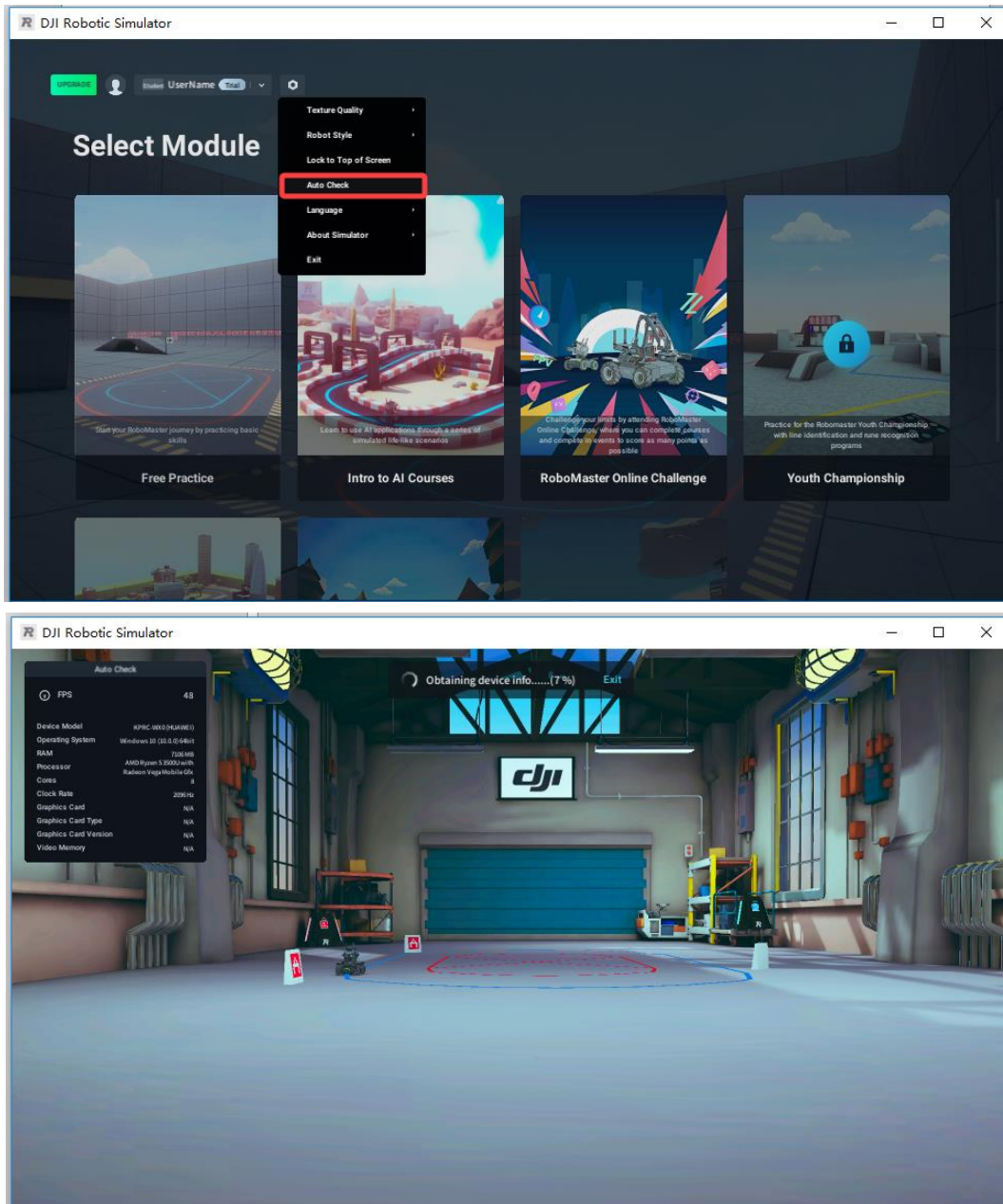
1. Click on Perspective button to toggle between FPV view (first person view from the robot camera), tracking view (3rd person perspective view following the robot) or roaming view (free view point where users can move the camera using W,A,S,D keys) or top-down view (top-down view of the challenge arena).
2. **【Show Robot Path】** : Display path of robot as it moves;
3. **【Image Resolution Transmission】** : Allow you to change resolution of image transmission to DIY Programming according to machine.

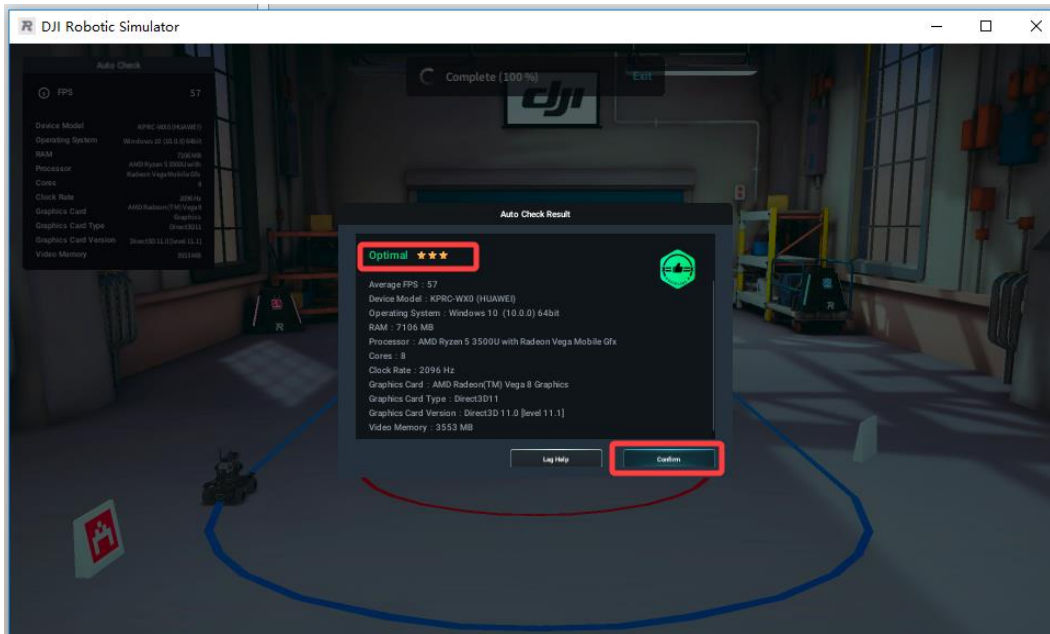


1.3.3 Performance Diagnostic and Reduce Lag

DJI Robotic Simulator has a set of minimum hardware requirements. Please refer to <https://edu.dji.com/hub/server/docs?uuid=438adae9-62bf-4186-8dad-b80c49781c21&beforeLang=zh> for hardware requirements and solutions to reduce lag.

Users can check hardware performance of DJI Robotic Simulator by using **【Settings】** - **【Auto Check】** which takes about a minute to get a performance rating.



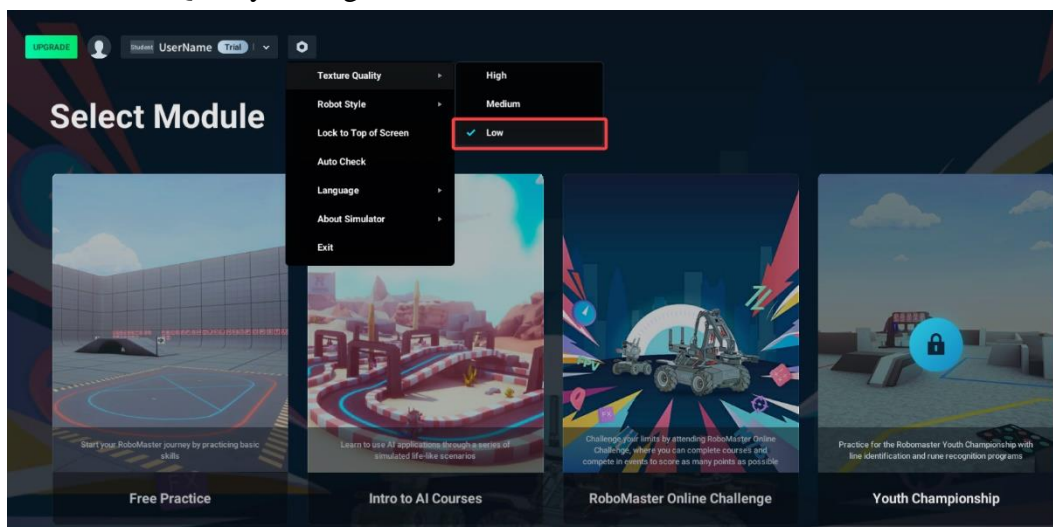


- Help on resolving lag

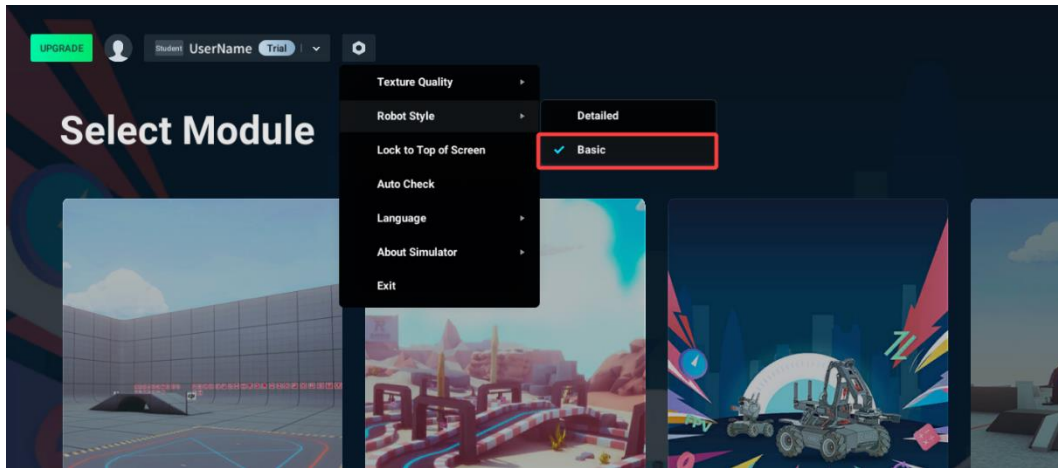
If the performance rating of your hardware is low, you can try these measures to improve the performance:

Note: The following measures do not change the execution of your codes. For example, turn off image transmission does not disable the detection capabilities of the simulated RoboMaster EP.

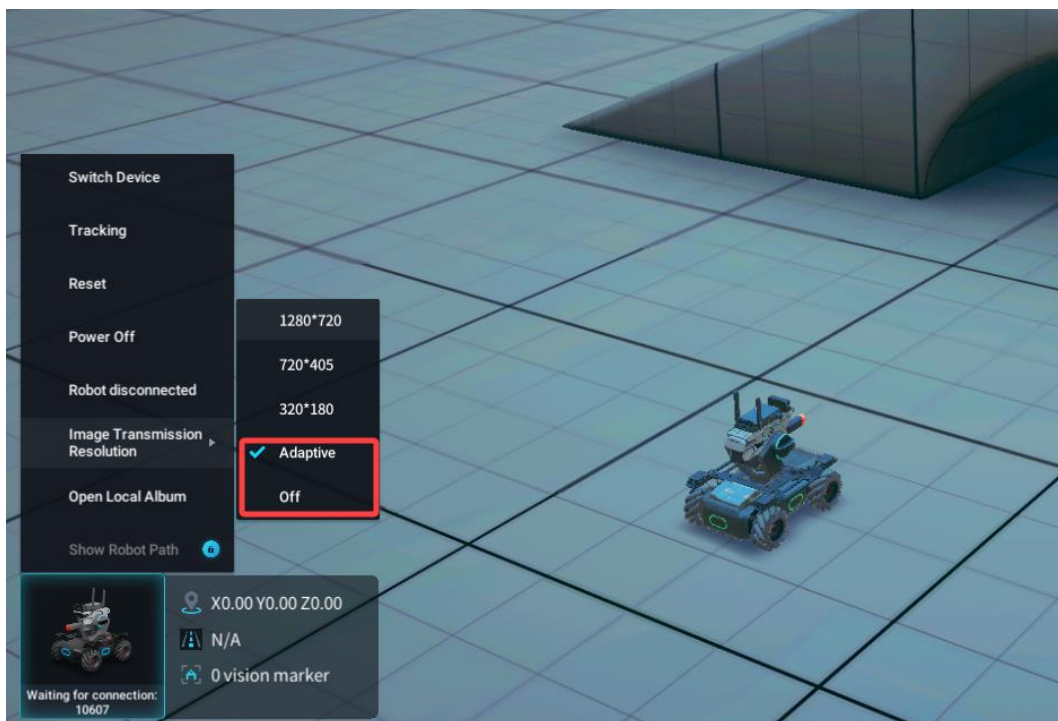
1. Lower Texture Quality settings



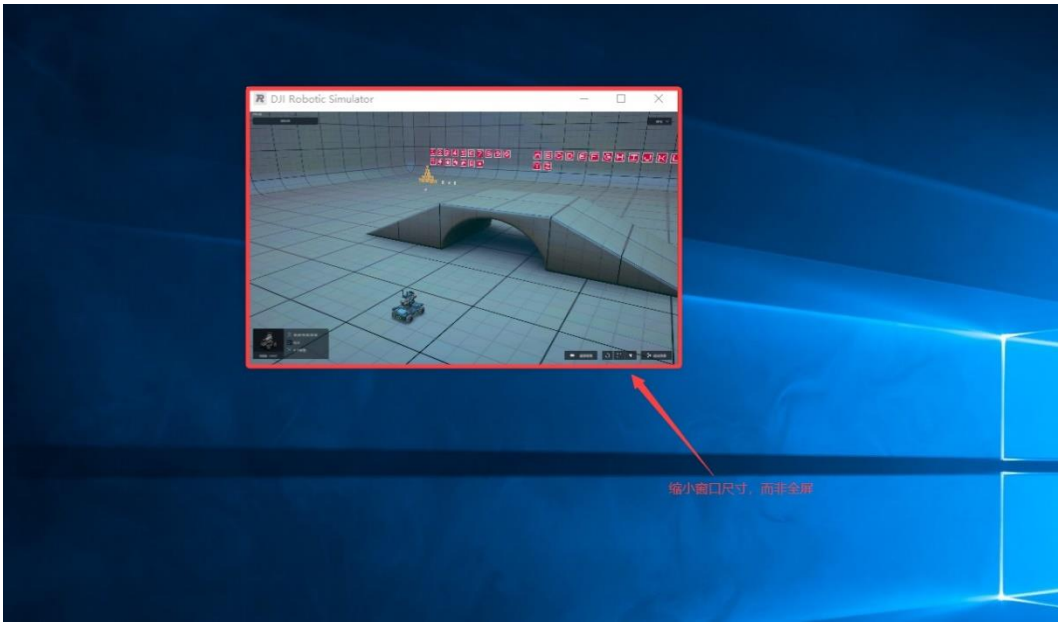
2. Use “Basic” as Robot Style



3. Change Image Transmission Resolution to **【Adaptive】** or **【Off】**

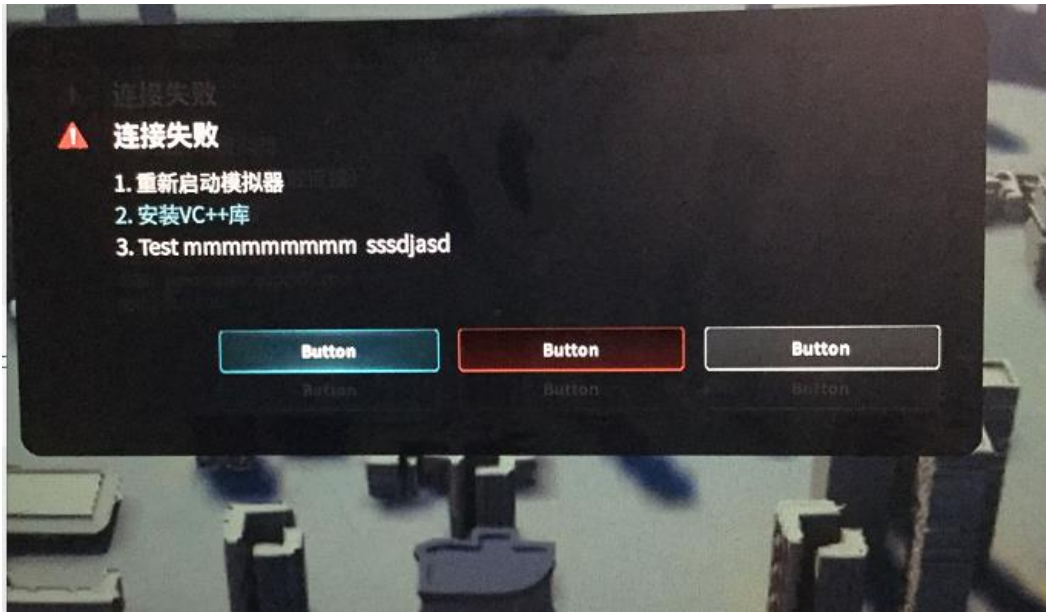


4. Reduce window size of DJI Robotic Simulator instead of full window.



2. Common Issues

- Issue: After installation, the following error is encountered when running DJI Robotic Simulator



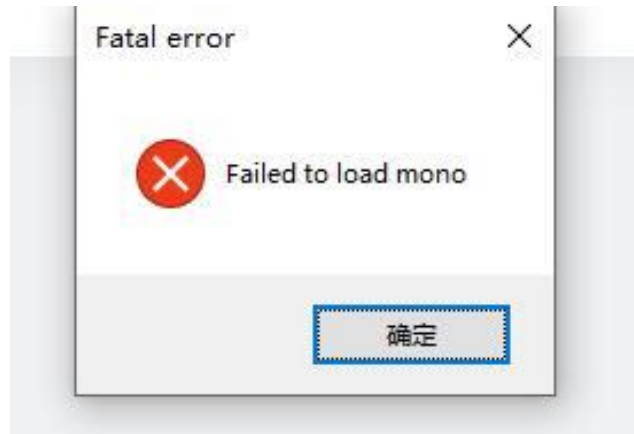
Answer: Lack of some software. Please install the necessary software using the following steps:

Step 1: Download the software via this link <https://service-adhoc.dji.com/download/app/pc/a4c5738b-61a2-4318-9ebc-e7c5019d1b00>

Step 2: Extract files from the downloaded file and install VC_redist_x64.exe. If the operating system is Windows 7, please install Windows6.1-KB2533623-x64.msu:

- ✧ Please install VC_redist_x64.exe
- ✧ If the operating system is Windows 7, please install Windows6.1-KB2533623-x64.msu

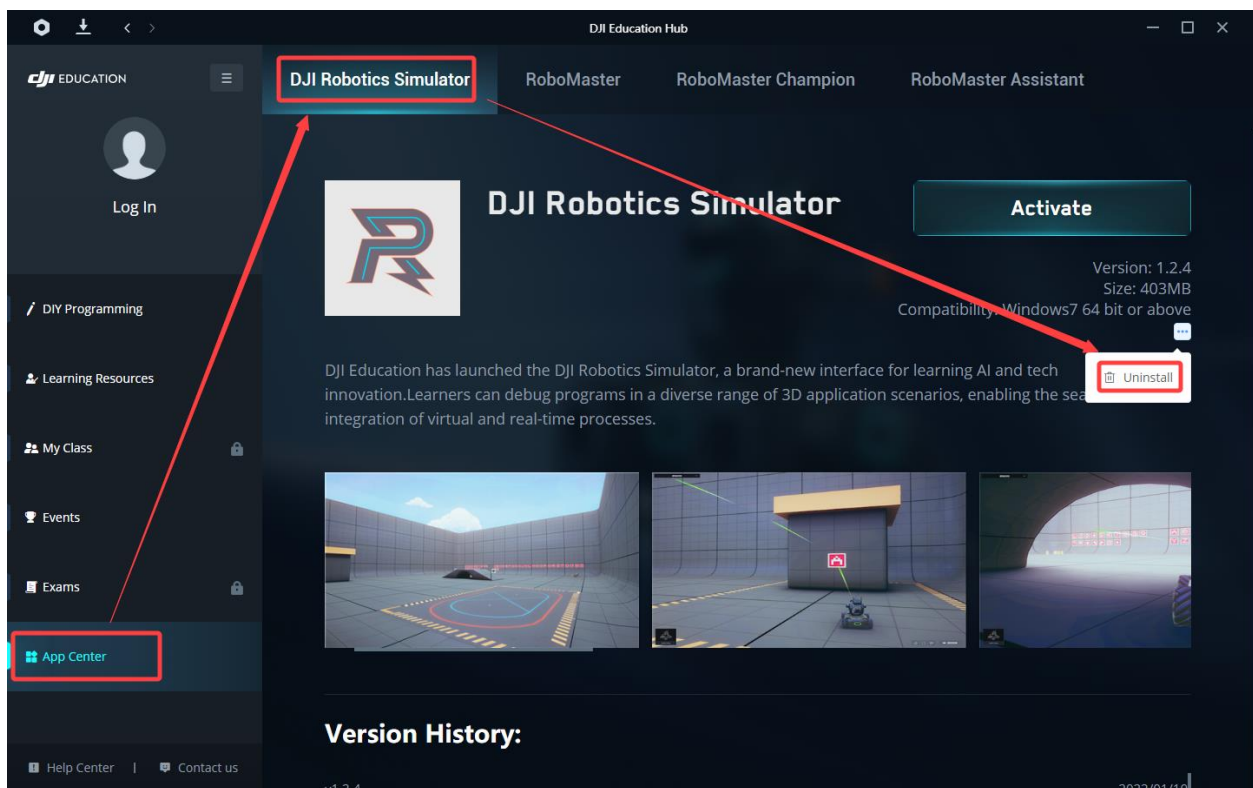
- Encountered the following error when starting DJI Robotic Simulator or DJI Education Hub Desktop version.



Answer: This is likely to antirvirus program accidentally some files. You can try the following steps:

Step 1: Turn off antivirus software.

Step 2: Un-install DJI Robotic Simulator.



Step 3: Re-install DJI Robotic Simulator.