Home » premio » Premio RCO-6000 Al Edge Inference Computer Instructions



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Premio RCO-6000 AI Edge Inference Computer Instructions

Contents

- 1 Document Information
- 2 Overview
- **3 Hardware Description**
- 4 Set up your Development Environment
- 5 Set up your Hardware
- 6 Setup your AWS account and

Permissions

- 7 Create Resources in AWS IoT
- 8 Install the AWS Command Line Interface
- 9 Install AWS IoT Greengrass
- 10 Create a Hello World Component
- 11 Troubleshooting
- 12 Documents / Resources
 - 12.1 References
- 13 Related Posts

Document Information

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1.0	February 2024	Publish Document

Overview

1. Introduction

The RCO-6000-CML-2-2B15M Series AI Edge Inference Computer incorporates advanced performance with Intel's 10th Generation Core processors, an advanced GPU accelerator, and expandable, hot-swappable NVMe SSDs with its modular EDGEBoost Nodes. As processing power shifts away from resources in the cloud, deployments in remote and mobile environments require ruggedized systems that can withstand exposure to environmental factors such as dust, debris, shock, vibration, and extreme temperatures. Premio's AI Edge Inference Computers are tested and validated to ensure reliable performance amid deployments in the harshest environmental settings.

2. About AWS IoT Greengrass

To learn more about AWS IoT Greengrass, see **how it works** and **what's new**.

Hardware Description

1. Data Sheet

Click on this link https://premio.blob.core.windows.net/premio/uploads/resource/data-sheet/RCO-6000-CML-2-2B15M Premio.pdf to view the datasheet of RCO-6000-CML-2-2B15M.

2. Additional Hardware References

Please refer to the RCO-6000-CML-2-2B15M device page for more product details

3. User Provided Items

Not applicable.

4. 3rd Party Purchasable Items

Not applicable.

Set up your Development Environment

AWS IoT Greengrass supports both Windows and Linux:

https://docs.aws.amazon.com/greengrass/v2/developerguide/operating-system-feature-support-matrix.html.

Please refer to the developer guide for the required tools and proper setup: https://docs.aws.amazon.com/greengrass/v2/developerguide/what-is-iot-greengrass.html

It is recommended to install the following tools/SDKs:

- Java Runtime Environment (JRE) version 8 or greater
- Java Development Kit (JDK) Amazon Corretto 11 (https://aws.amazon.com/corretto/) or OpenJDK 11 (https://openjdk.java.net/)
- GNU C Library (https://www.qnu.org/software/libc/); (glibc) version 25 or greater

Set up your Hardware

Please refer to the device user's manual for the hardware setup.

Setup your AWS account and Permissions

Refer to the online AWS documentation at Set up your AWS Account: https://docs.aws.amazon.com/iot/latest/developerguide/setting-up.html

Follow the steps outlined below to create your account and user to get started:

- Sign up for an AWS account: https://docs.aws.amazon.com/iot/latest/developerguide/setting-up.html#aws-registration
- Create a user and grant it the proper permissions:
 https://docs.aws.amazon.com/iot/latest/developerguide/setting-up.html#create-iam-user
- Open the AWS IoT console: https://docs.aws.amazon.com/iot/latest/developerguide/setting-up.html#iot-console-signin

Create Resources in AWS IoT

Refer to the instructions on how to create AWS IoT resource: https://docs.aws.amazon.com/iot/latest/developerguide/create-iot-resources.html

Follow the steps outlined in these sections to provision resources for your device:

- Create an AWS IoT Policy
- · Create a thing object

Install the AWS Command Line Interface

To install the AWS CLI on your host machine, refer to the instructions: https://docs.aws.amazon.com/cli/latest/userguide/getting-started-install.html
Installing the CLI is required to complete the instructions in this guide. Once you have installed AWS CLI, configure it per the instructions: <a href="https://docs.aws.amazon.com/cli/latest/userguide/cli-configure-quickstart.html#cli-configure-quickstart-configure-quick

Set the appropriate values for access key ID, secret access key, and AWS Region based on your AWS account. You can set Output format to "json" if you prefer.

Install AWS IoT Greengrass

Follow the online guide to *Install with automatic provisioning*. Refer to the instructions in the following steps:

Set up the device environment

<u>Provide AWS credentials to the device</u>. For development environments, you can use the option "Use long-term credentials from an IAM User". An example of how to do this is shown below:

export AWS ACCESS KEY ID=<the access key id for your user>

export AWS_SECRET_ACCESS_KEY=<the secret access key for your user>

Download the AWS IoT Greengrass Core software Install the AWS IoT Greengrass Core software

Create a Hello World Component

In AWS IoT Greengrass v2, components can be created on the edge device and uploaded to the cloud, or vice versa.

To create, deploy, test, update and manage a simple component on your device, follow the instructions under the section "To Create a Hello World Component":

https://docs.aws.amazon.com/greengrass/v2/developerguide/getting-started.html

To upload the component to the cloud, follow the instructions under the section "Upload Your Component": https://docs.aws.amazon.com/greengrass/v2/developerguide/upload-first-component.html

Deploy your component

Follow the instructions online at **Deploy your Component** to deploy and verify that your component is running.

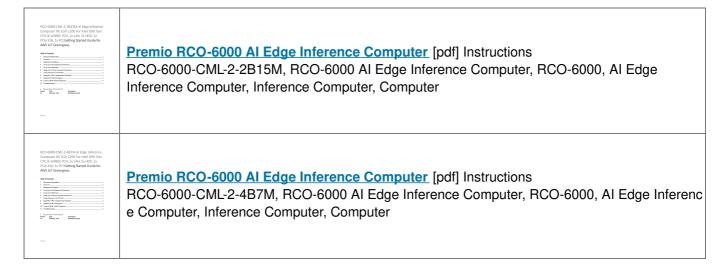
Troubleshooting

For AWS IoT Greengrass general troubleshooting tips, please refer to:

https://docs.aws.amazon.com/greengrass/v2/developerguide/troubleshooting.html

For device specific troubleshooting guide, please contact us directly at techsupport@premioinc.com.

Documents / Resources



References

- OpenJDK Download Corretto AWS
- & OpenJDK
- User Manual

Manuals+, Privacy Policy

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