

# RZ/A2M SOFTWAREPACKAGE FOR GR-MANGO HANDS ON TRAINING

OCT. 30, 2020

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SOFTWARE DEPARTMENT DIVISION  
IOT AND INFRASTRUCTURE BUSINESS UNIT  
RENESAS ELECTRONICS CORPORATION



# Agenda

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# Hands On Training Environment

# Hands On Training Environment

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## Target Board

- ✓ GR-MANGO (RZ/A2M)



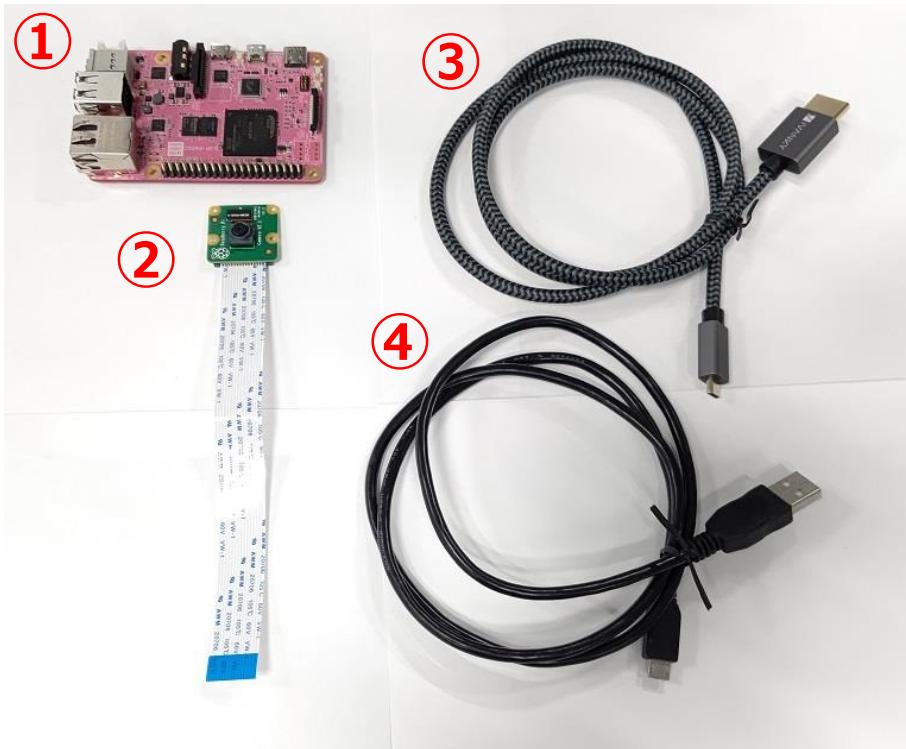
## Software

- ✓ RZ/A2M Software Package for GR-MANGO  
DRP dynamic loading sample program2  
(rza2m\_drp\_dynamic\_sample2\_freertos\_gcc)

# HARDWARE ENVIRONMENT PREPARATION

# HARDWARE ENVIRONMENT PREPARATION (1/7)

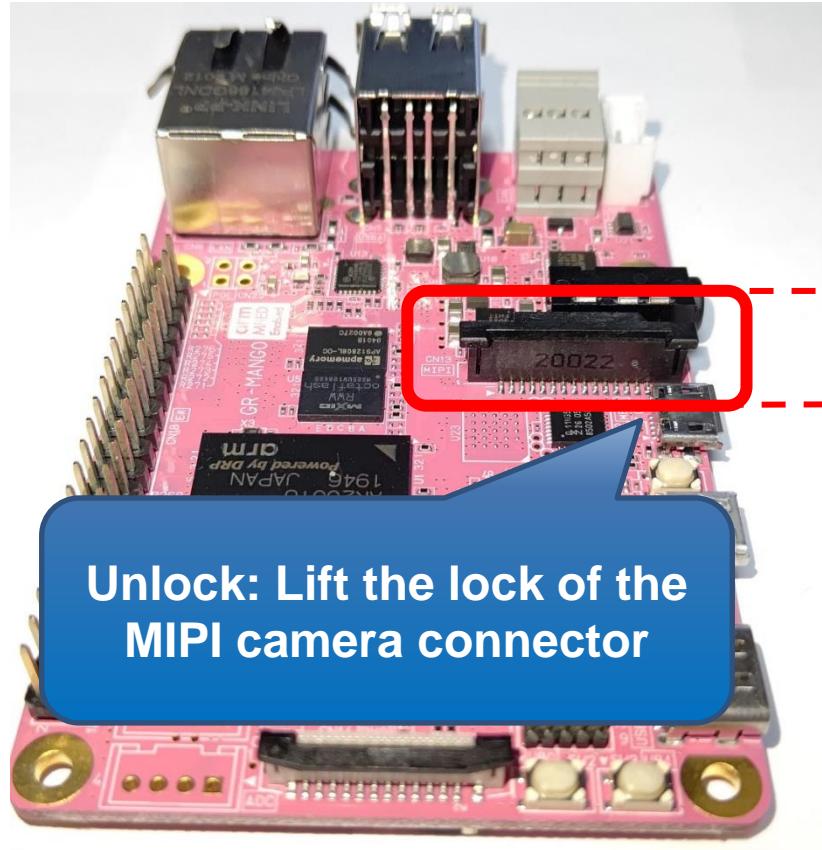
Will use following equipment in this training.



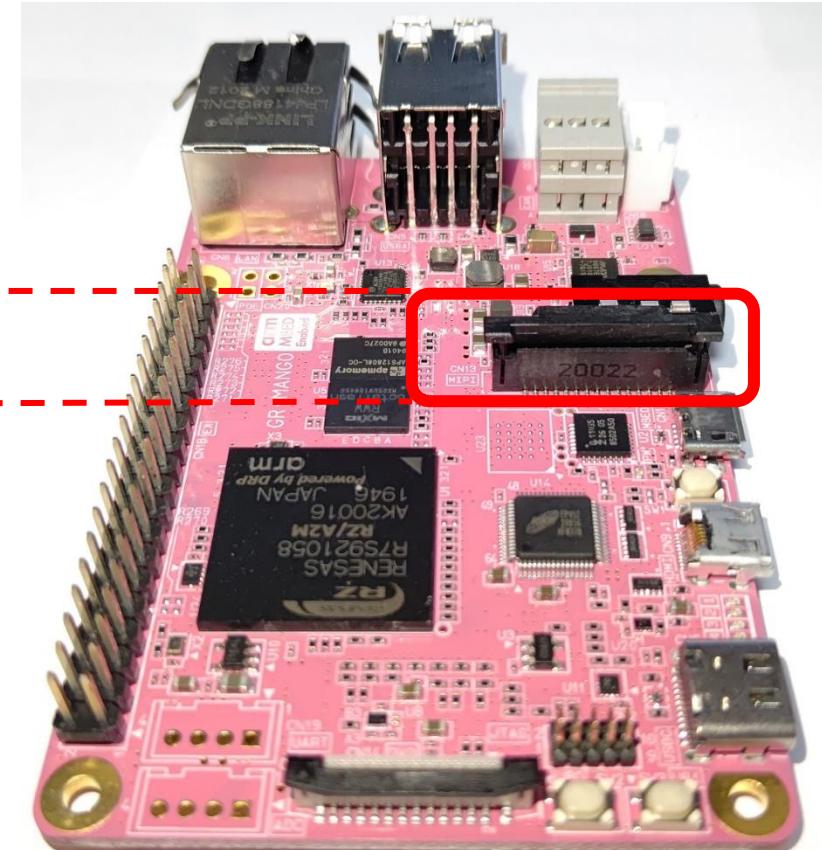
- ① GR-MANGO
- ② RASBERRY Pi  
CAMERA Module V2
- ③ HDMI cable  
(TYPE-A : Micro TYPE-D)
- ④ USB cable 2pcs  
(TYPE-A : Micro TYPE-B)
- ⑤ Monitor (HDMI supported)

# HARDWARE ENVIRONMENT PREPARATION (2/7)

How to install a MIPI camera.

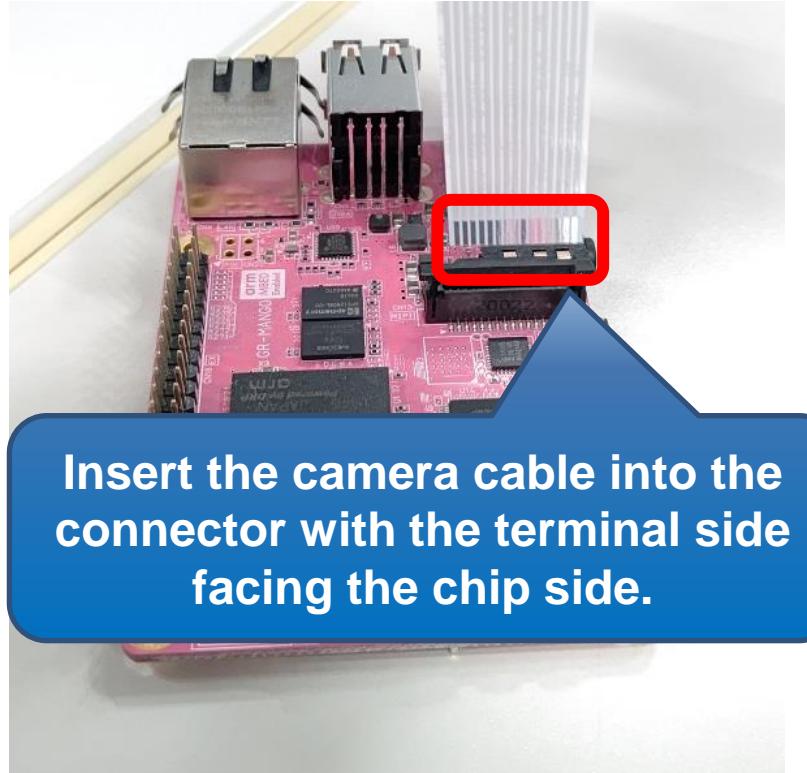


Unlock: Lift the lock of the  
MIPI camera connector

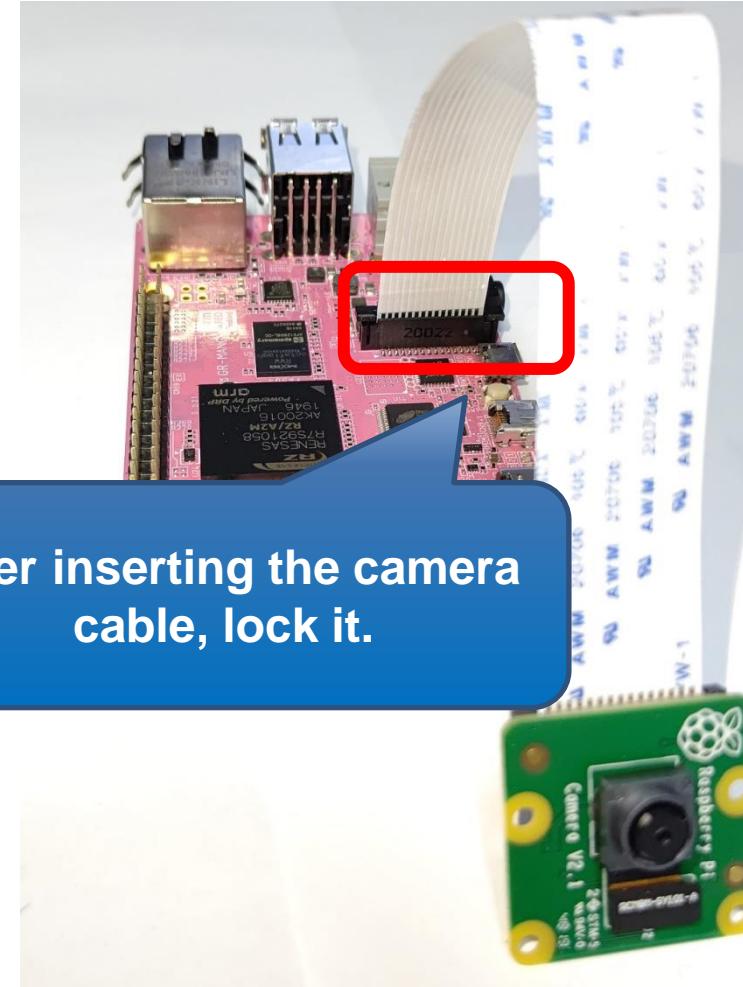
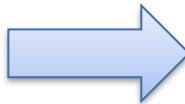


# HARDWARE ENVIRONMENT PREPARATION (3/7)

How to install a MIPI camera.

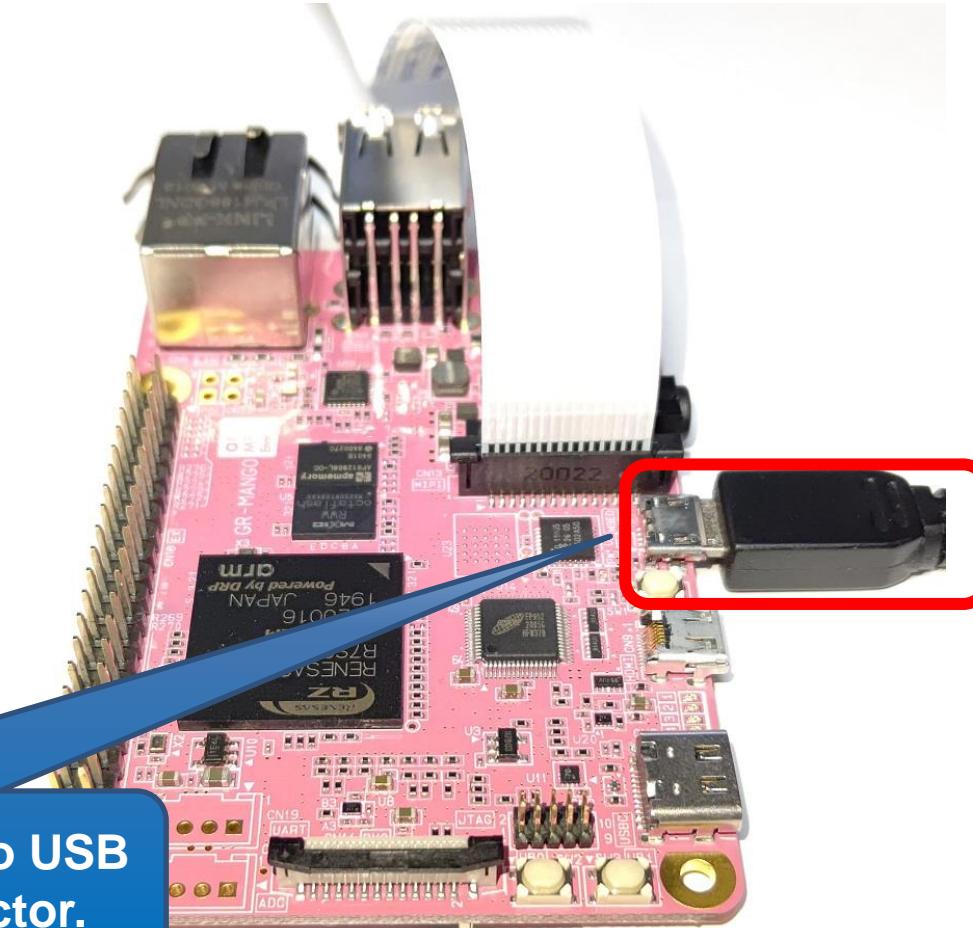


Insert the camera cable into the connector with the terminal side facing the chip side.



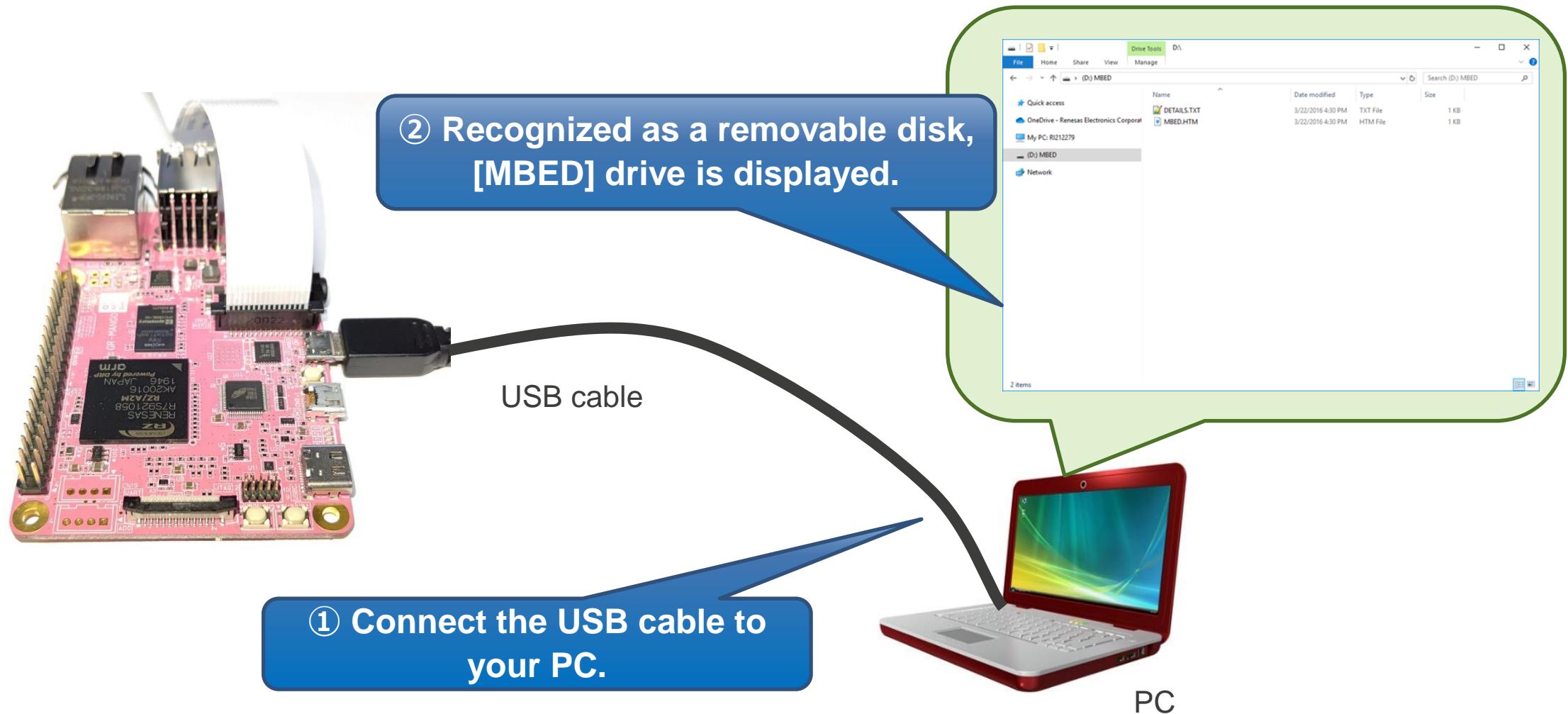
After inserting the camera cable, lock it.

# HARDWARE ENVIRONMENT PREPARATION (4/7)

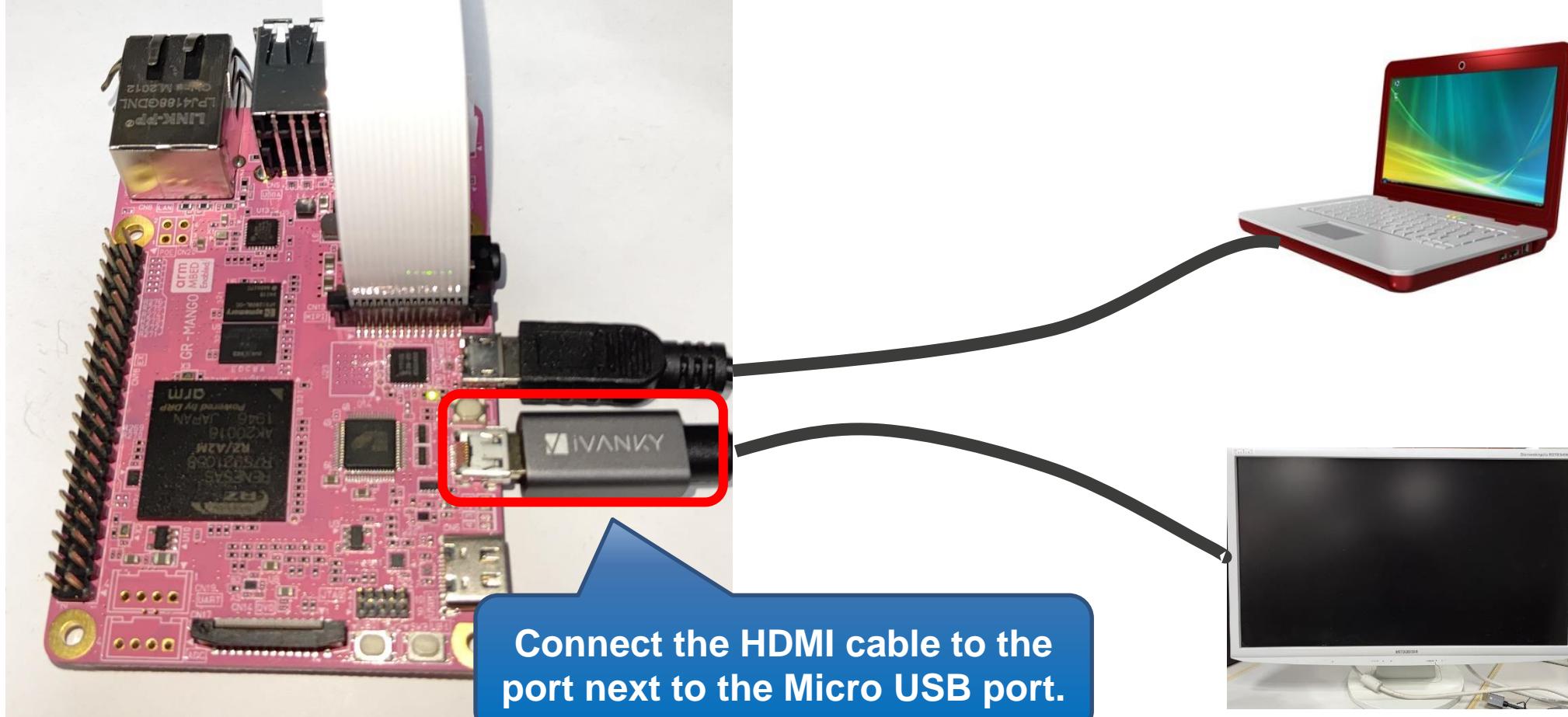


Connect the USB cable to the Micro USB port near the MIPI camera connector.

# HARDWARE ENVIRONMENT PREPARATION (5/7)



# HARDWARE ENVIRONMENT PREPARATION (6/7)



# HARDWARE ENVIRONMENT PREPARATION (7/7)

**GR-MANGO can be purchased from the following retailers.**

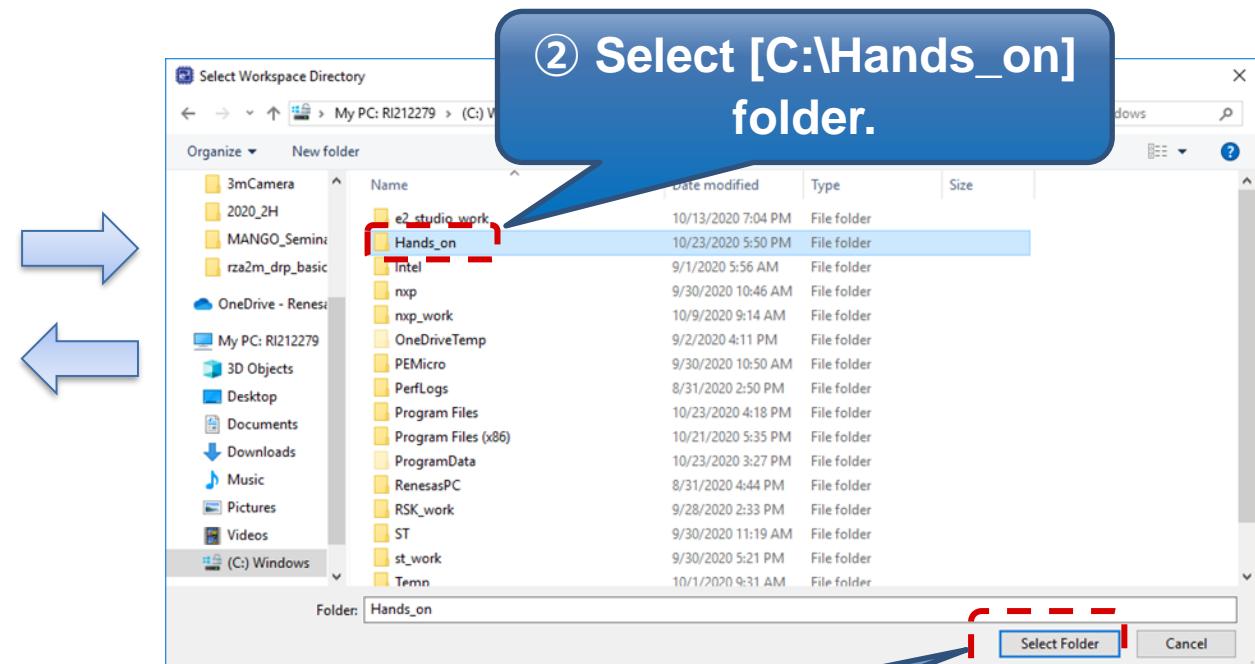
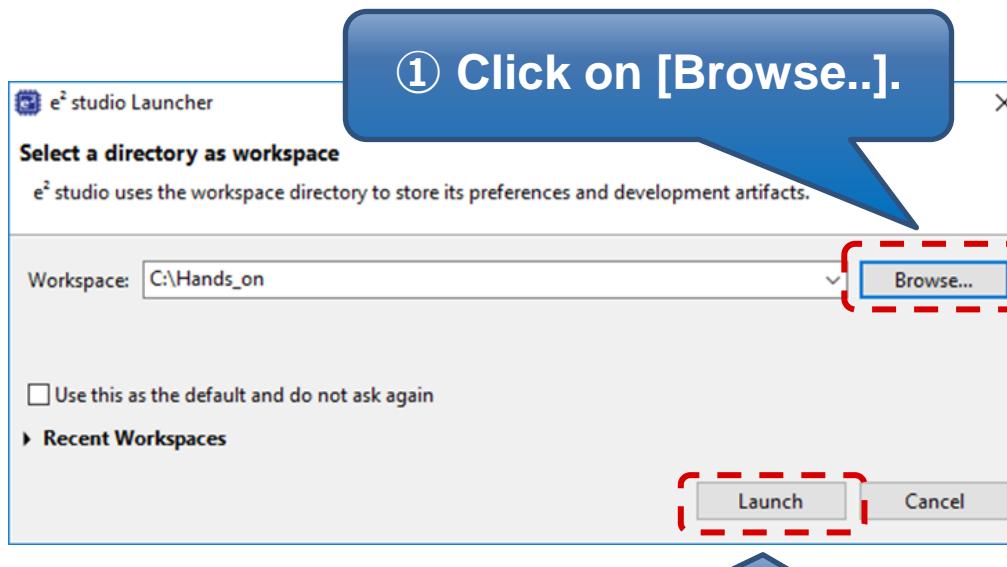
(Note) Except for GR-MANGO, you can use the equipment sold at mass retailers.

- Where to buy
  - Chip1Stop : In preparation. Will be open around 2020/4Q.

# HOW TO BUILD A PROJECT

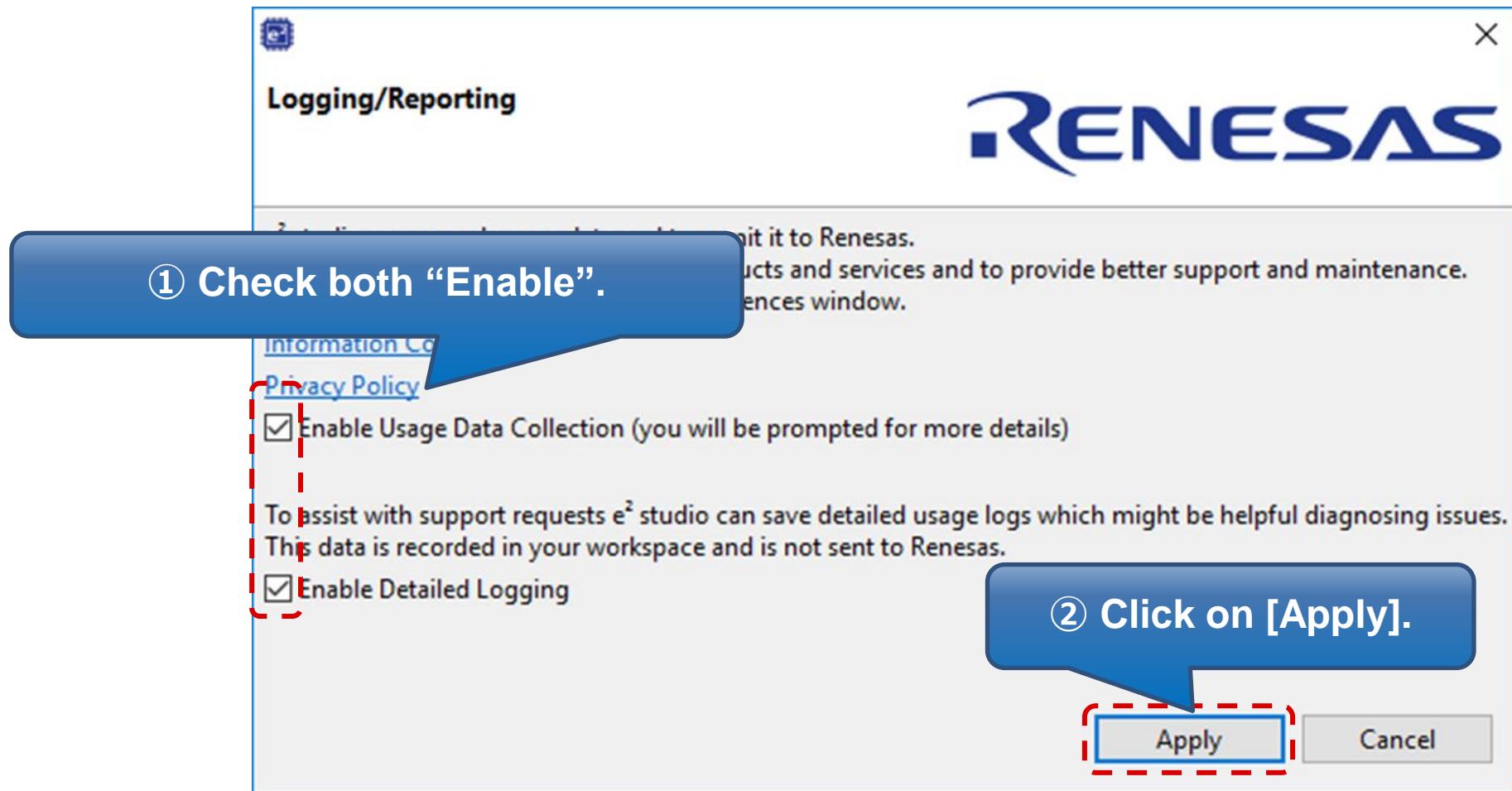
# HOW TO BUILD A PROJECT (1/6)

## Build procedure for Software in C:\Hands\_on folder

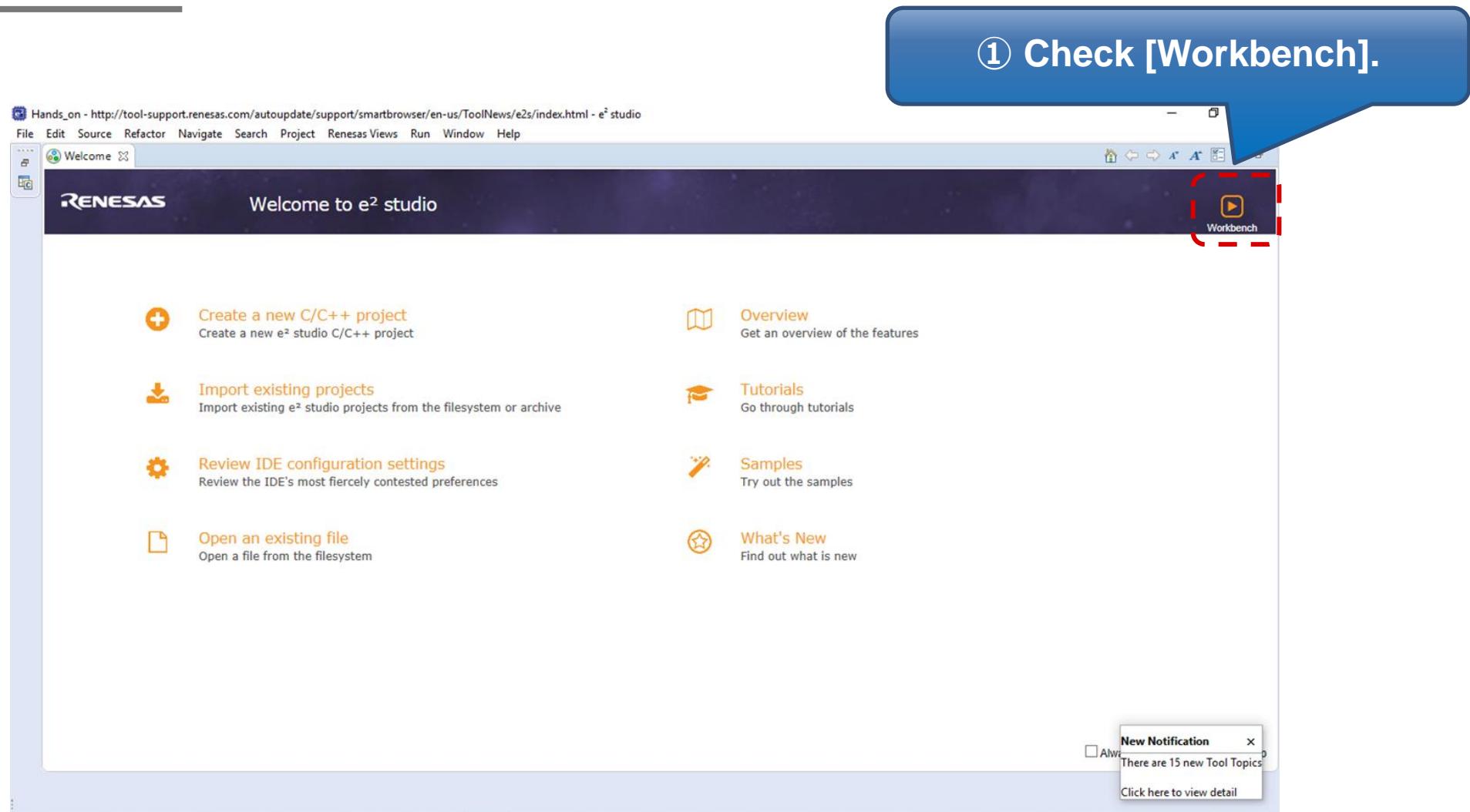


④ Click on [Launch] to launch e² studio.

# HOW TO BUILD A PROJECT (2/6)

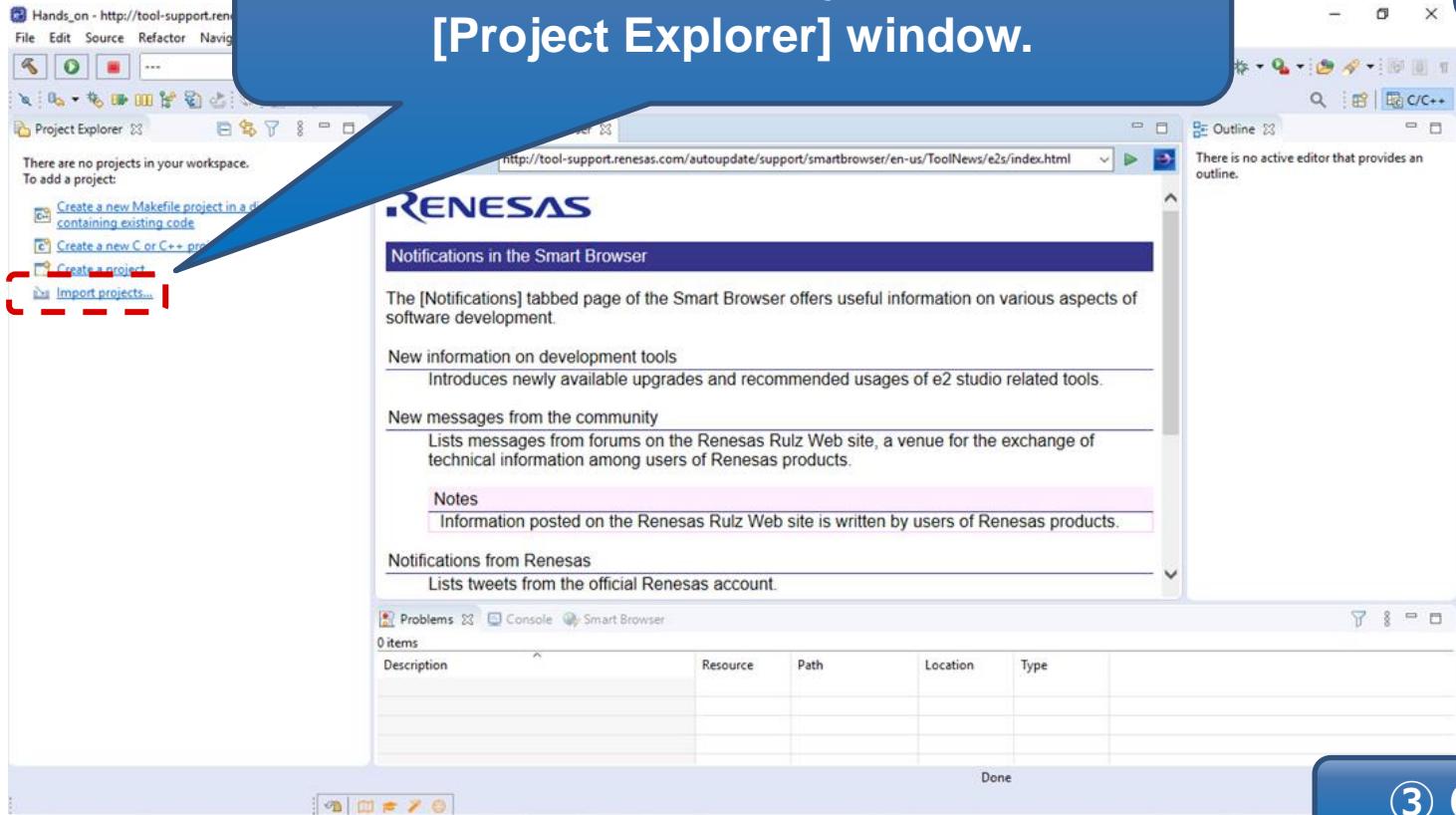


# HOW TO BUILD A PROJECT (3/6)

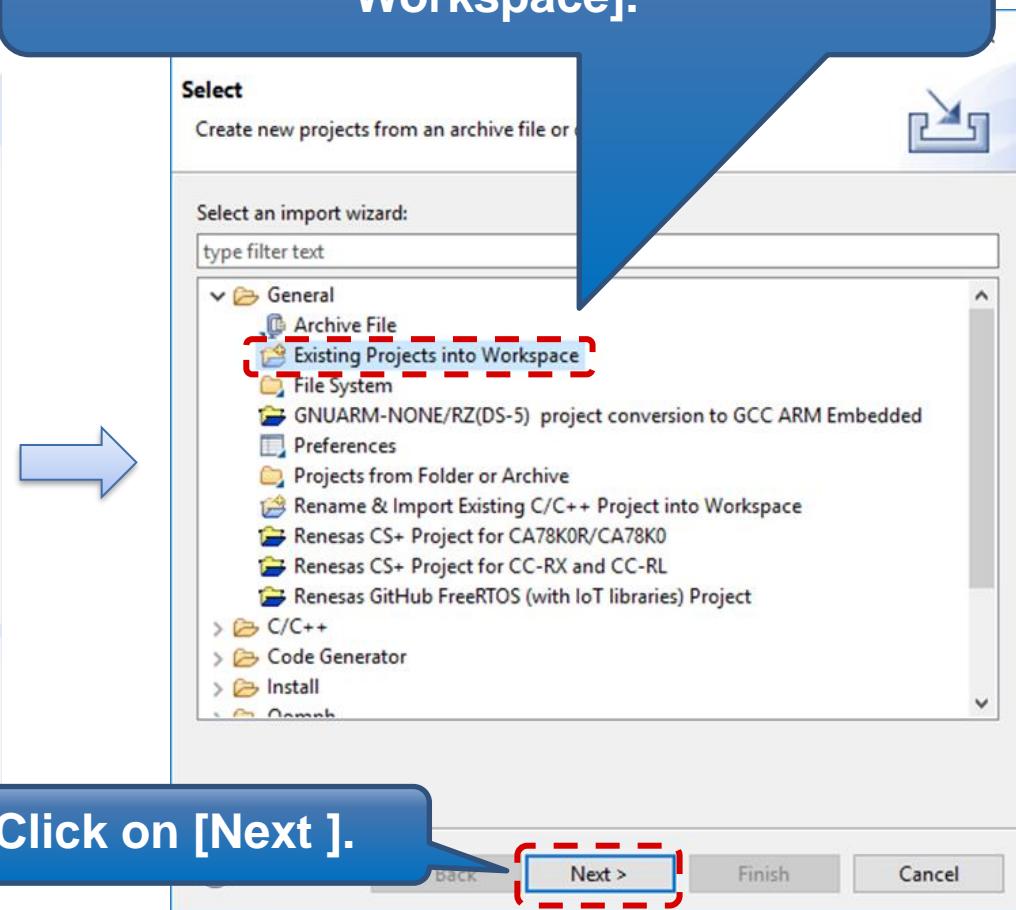


# HOW TO BUILD A PROJECT (4/6)

① Click on [Import projects...] on the [Project Explorer] window.

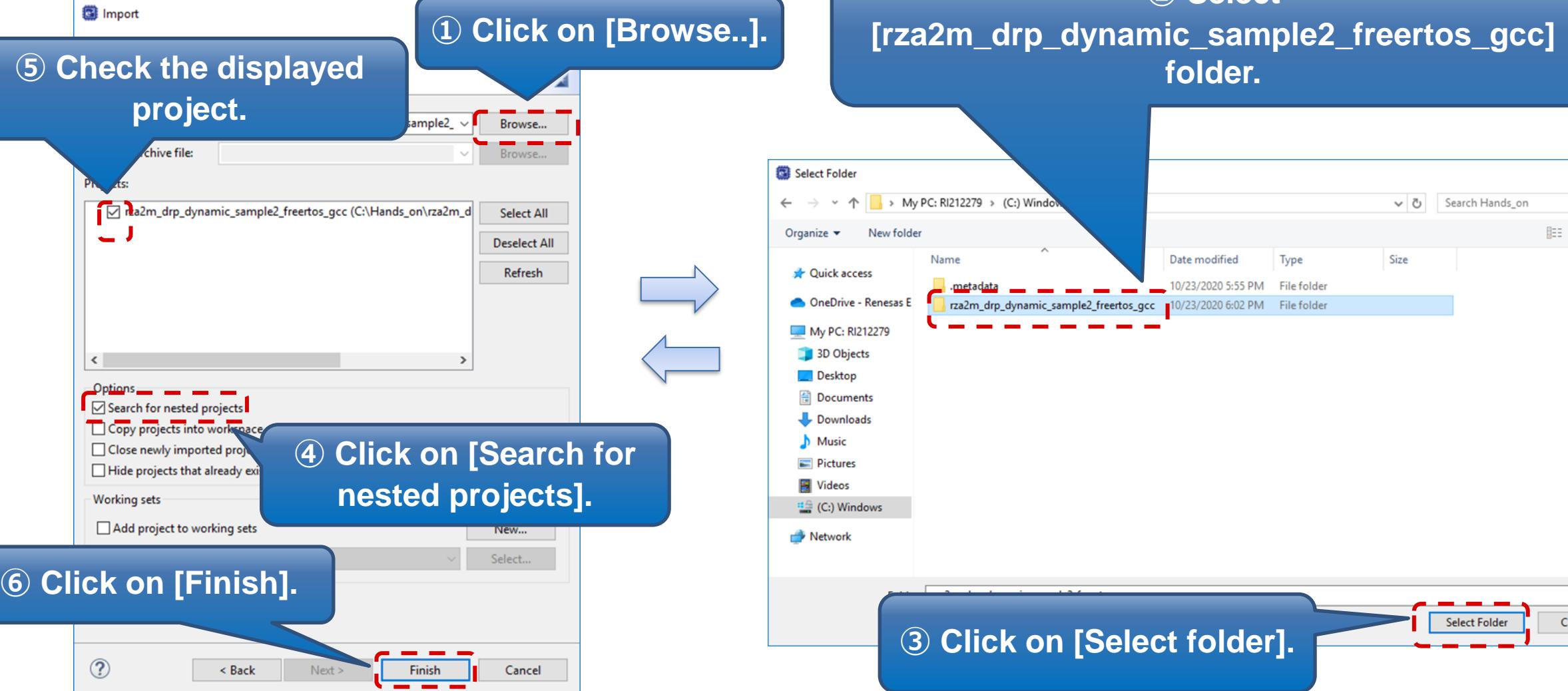


② Select [Existing Projects into Workspace].

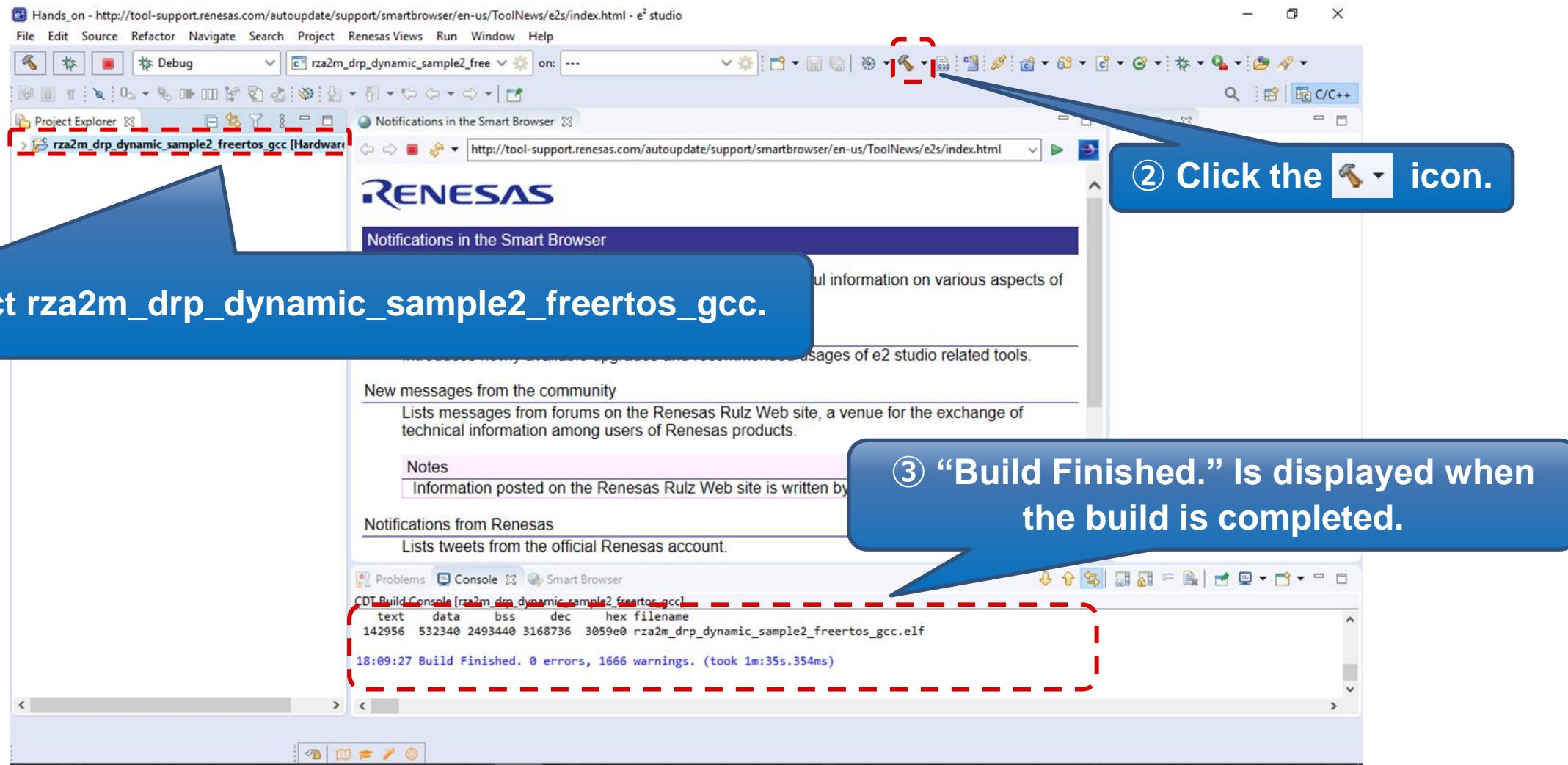


③ Click on [Next ].

# HOW TO BUILD A PROJECT (5/6)



# HOW TO BUILD A PROJECT (6/6)

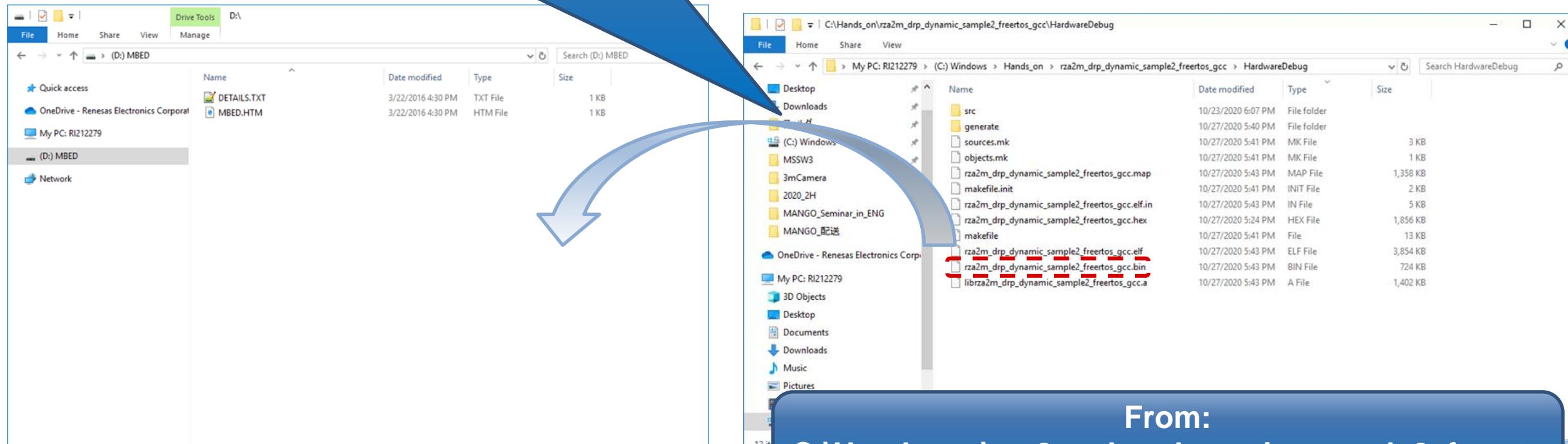


# EXECUTION PROCEDURE OF SAMPLE PROGRAM

# EXECUTION PROCEDURE OF SAMPLE PROGRAM (1/2)

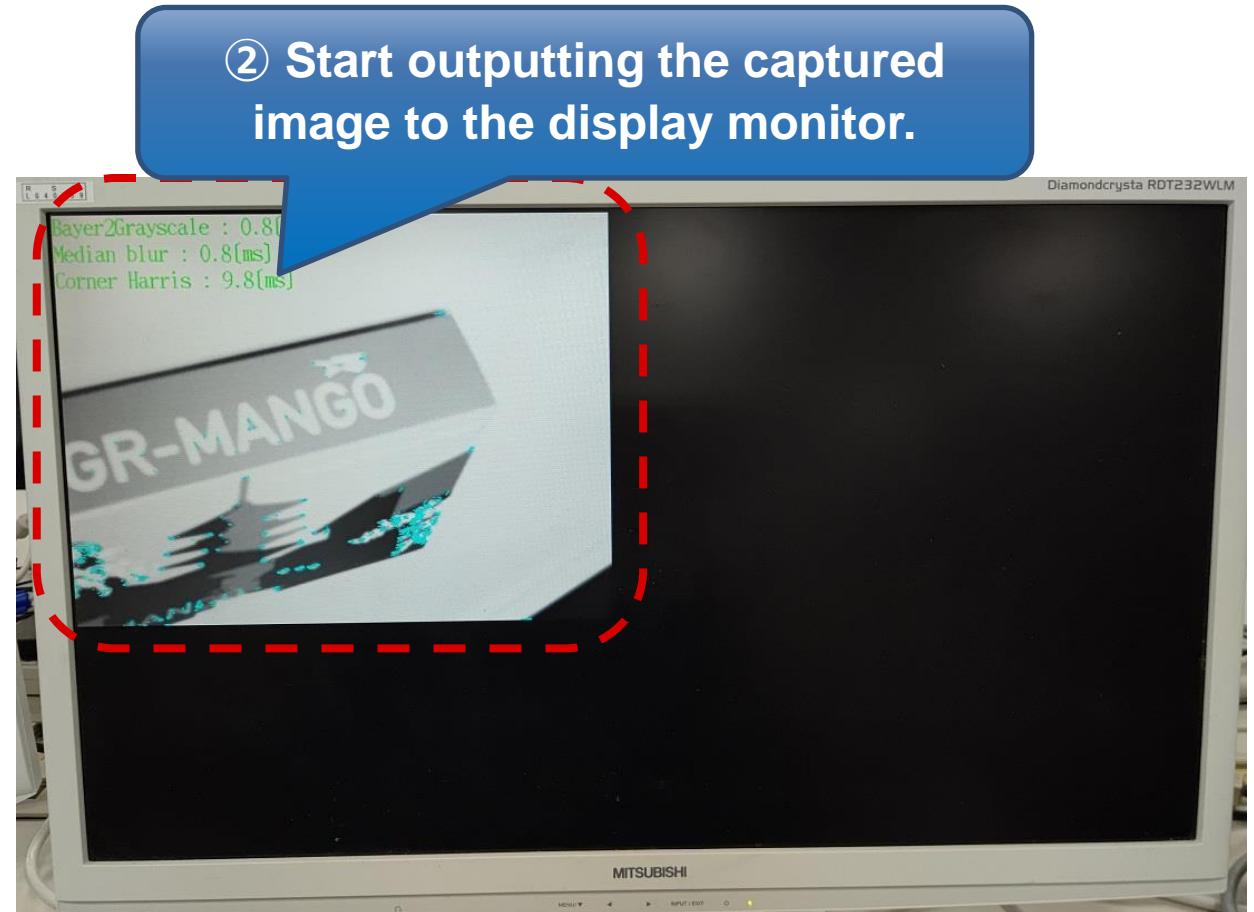
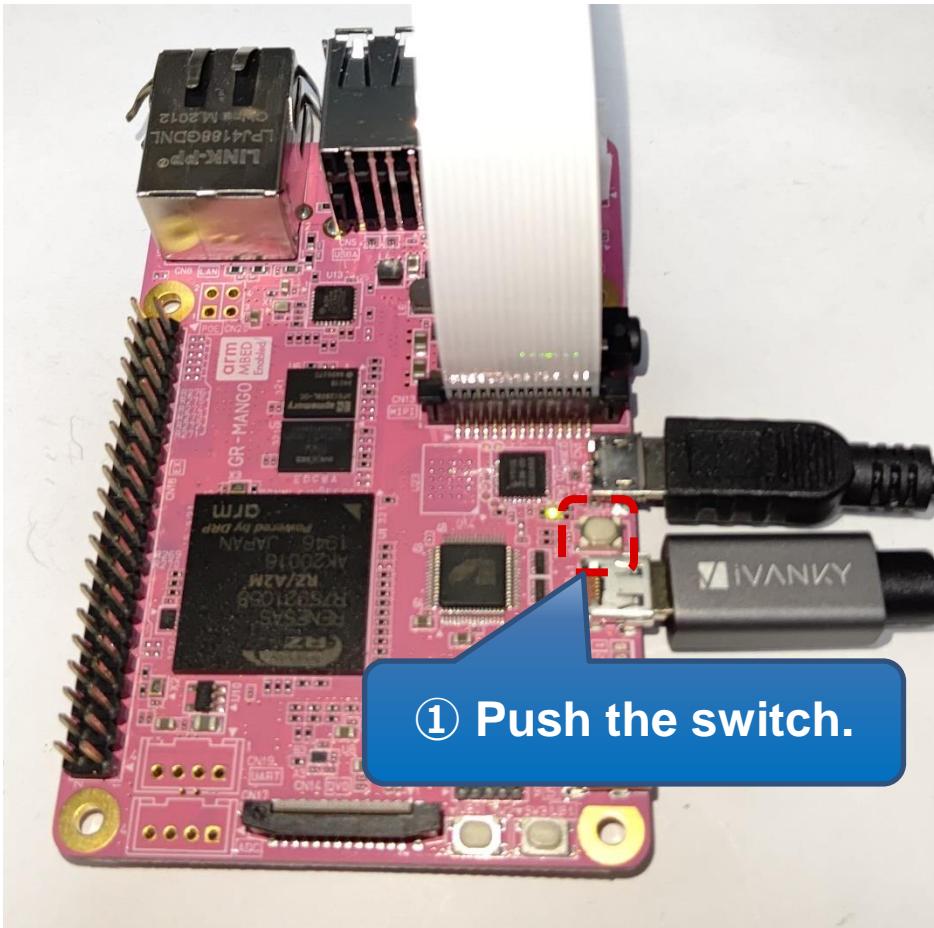
## ① Copy

rza2m\_drp\_dynamic\_sample2\_freertos\_gcc.bin to  
[MBED] drive.



From:  
C:\Hands\_on\rza2m\_drp\_dynamic\_sample2\_freertos\_gcc\HardwareDebug

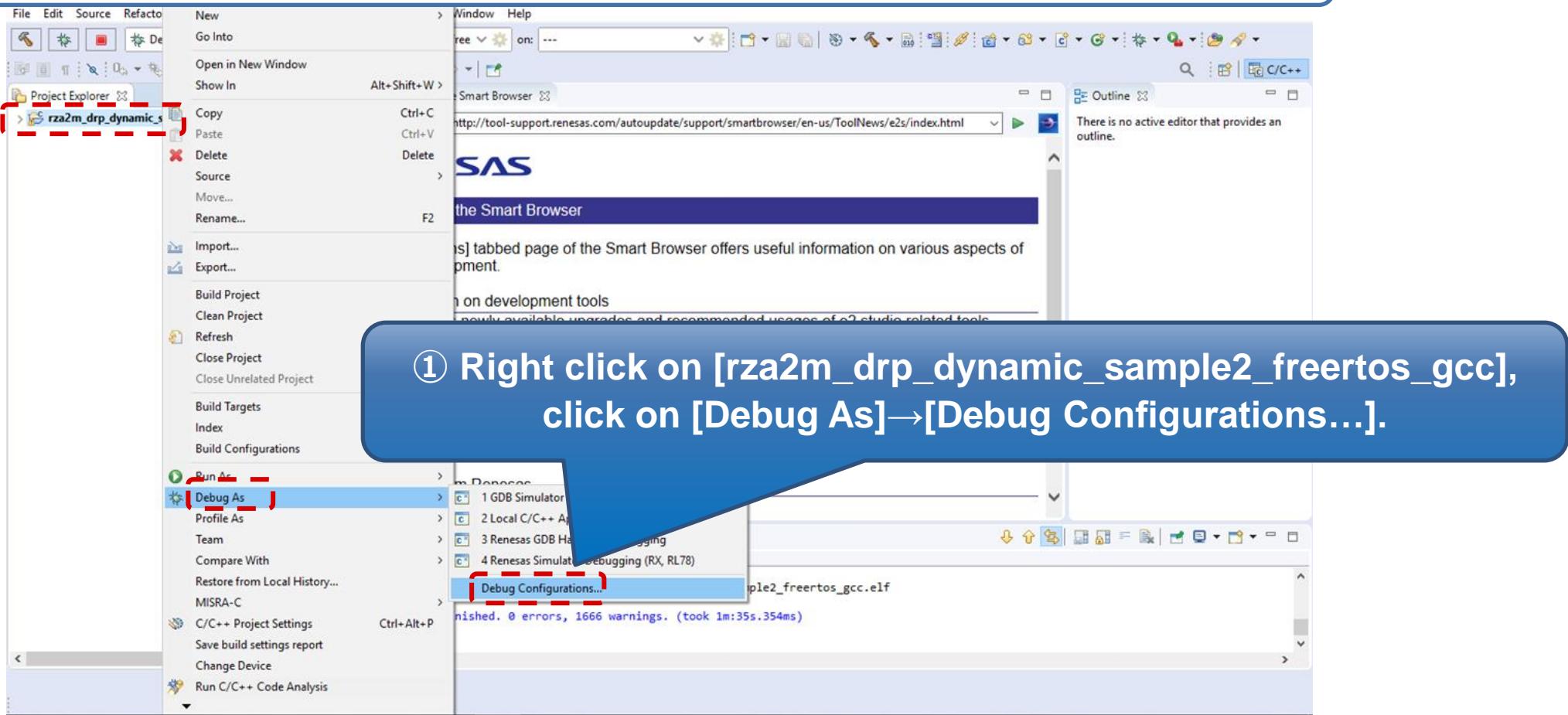
# EXECUTION PROCEDURE OF SAMPLE PROGRAM (2/2)



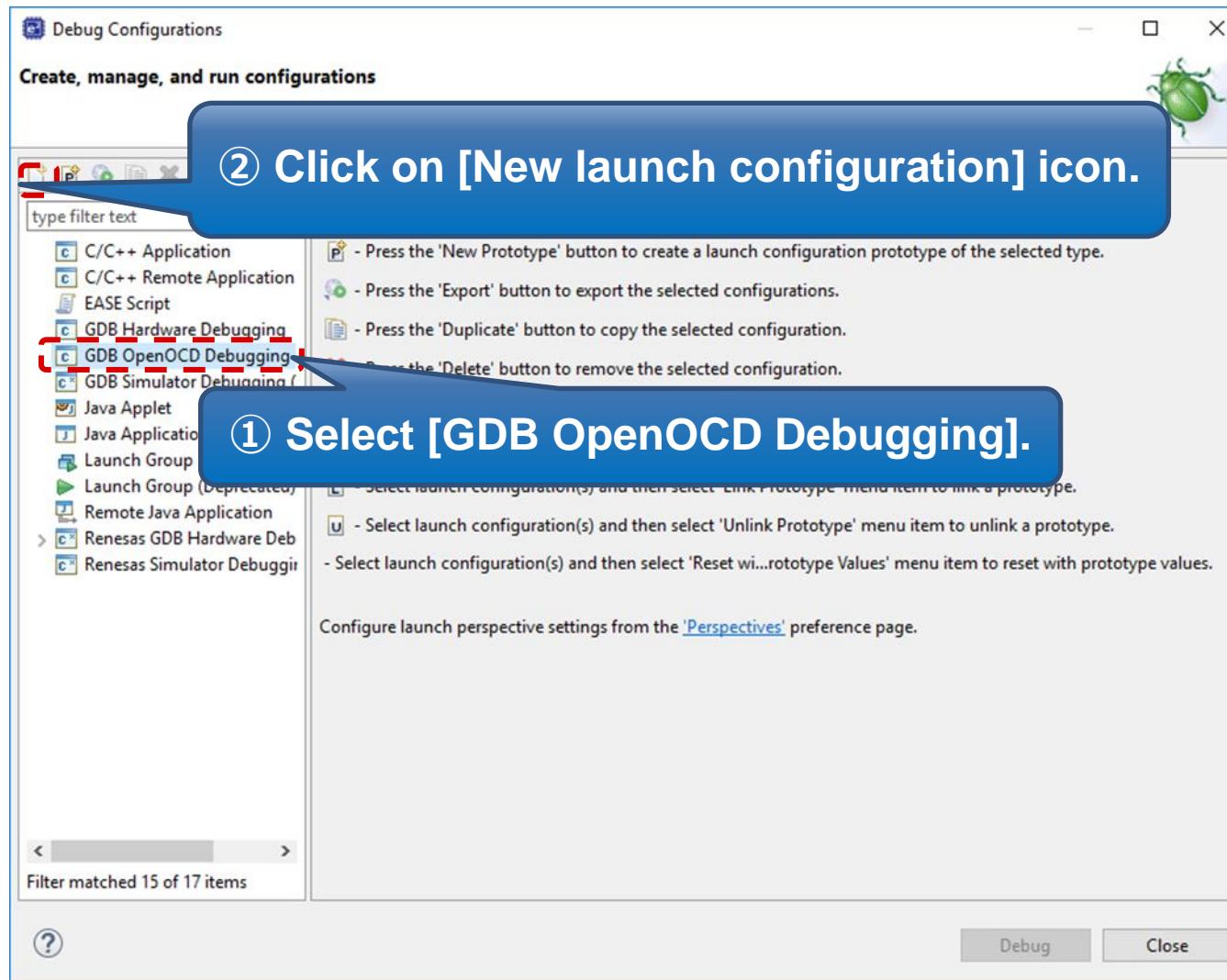
# DEBUGGING PROCEDURE OF SAMPLE PROGRAM

# DEBUGGING PROCEDURE OF SAMPLE PROGRAM (1/11)

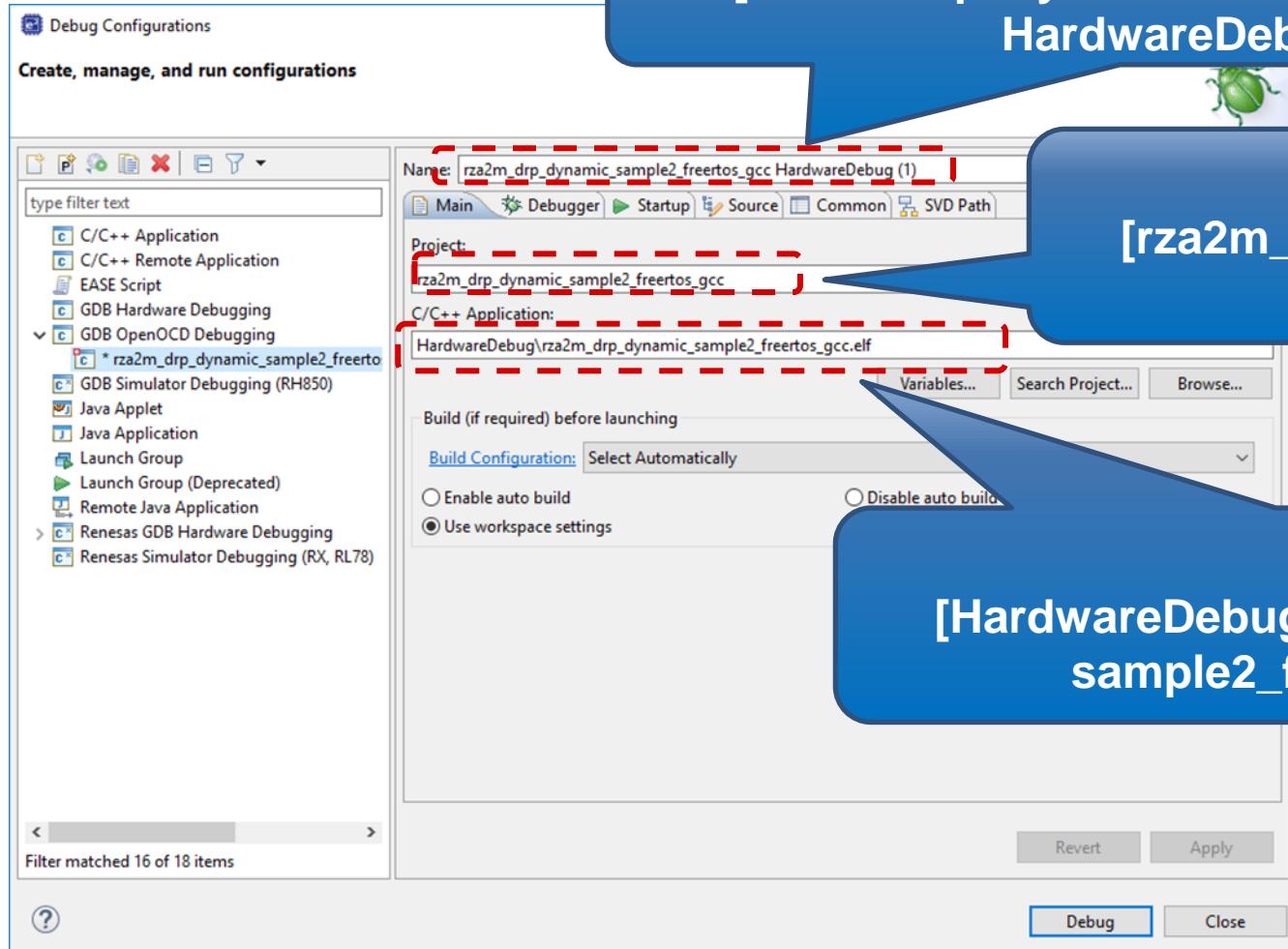
Let's try to debug the project using GR-MANGO



# DEBUGGING PROCEDURE OF SAMPLE PROGRAM (2/11)



# DEBUGGING PROCEDURE OF SAMPLE PROGRAM (3/11)



① Configure

[rza2m\_drp\_dynamic\_sample2\_freertos\_gcc  
HardwareDebug(1)].

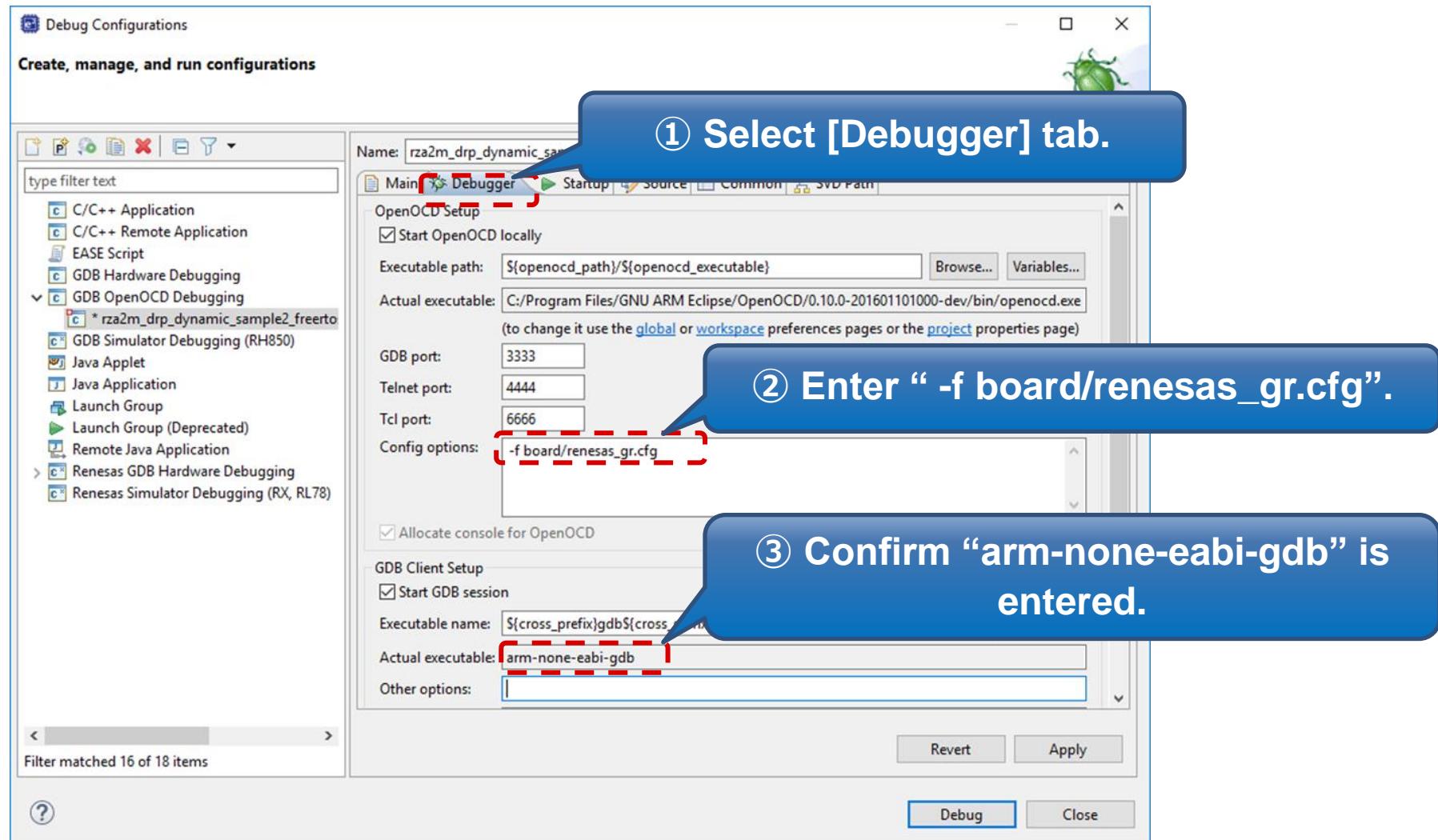
② Set

[rza2m\_drp\_dynamic\_sample2\_  
freertos\_gcc].

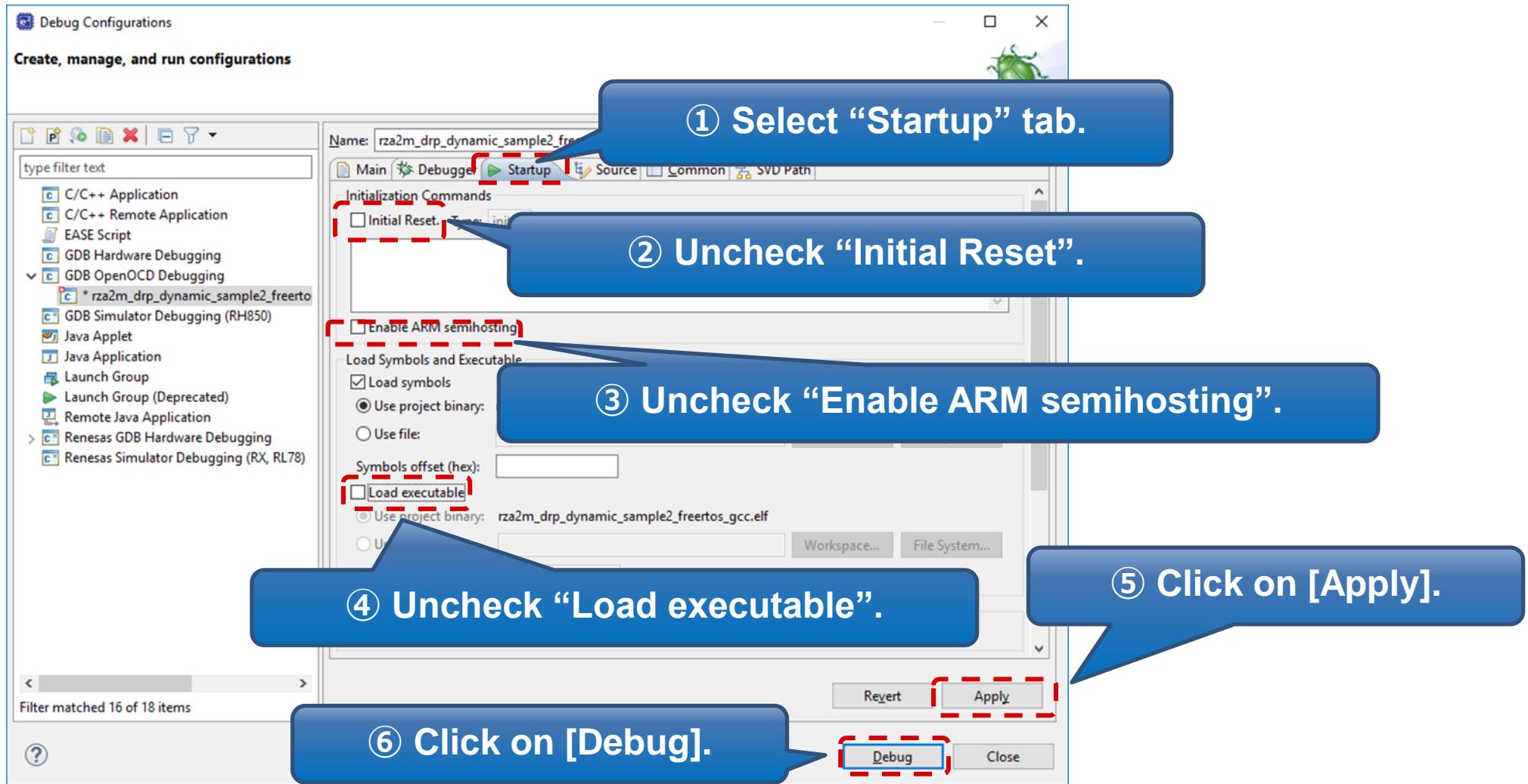
③ Set

[HardwareDebug\rza2m\_drp\_dynamic\_  
sample2\_freertos\_gcc.elf].

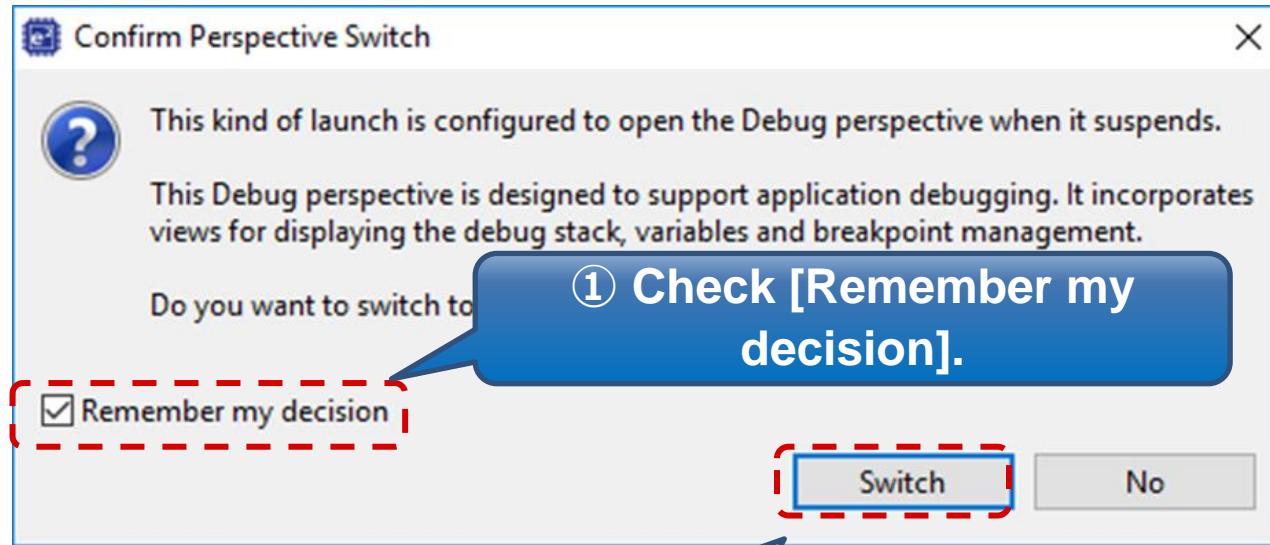
# DEBUGGING PROCEDURE OF SAMPLE PROGRAM (4/11)



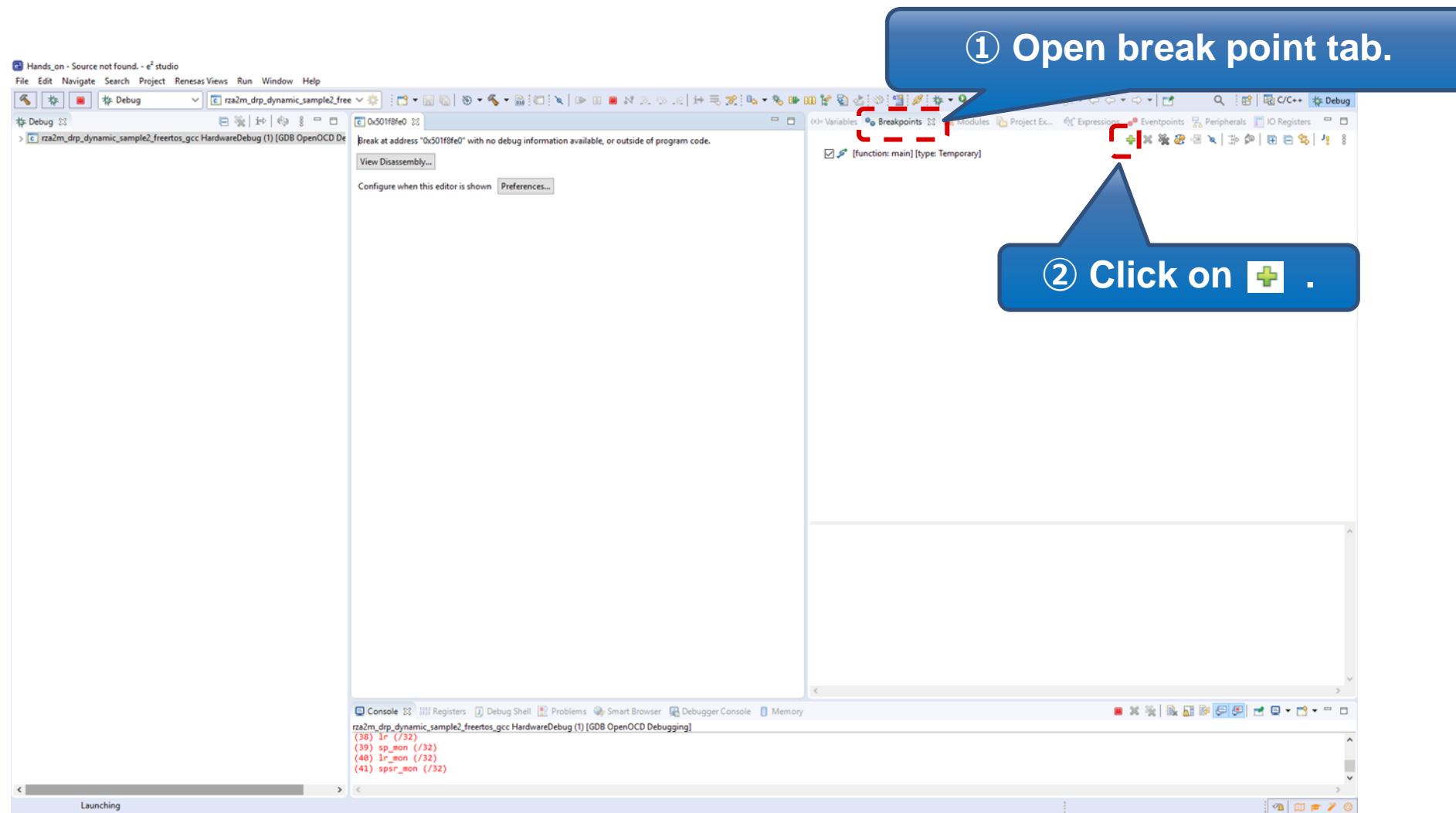
# DEBUGGING PROCEDURE OF SAMPLE PROGRAM (5/11)



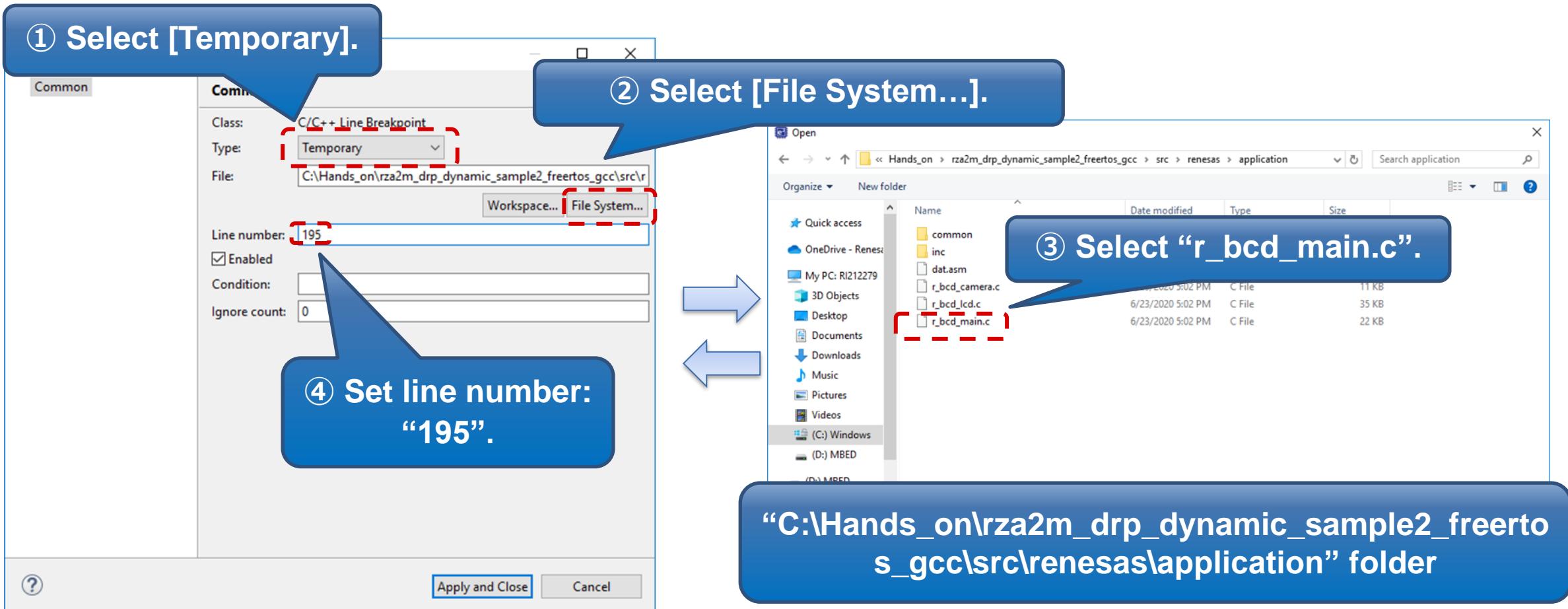
# DEBUGGING PROCEDURE OF SAMPLE PROGRAM (6/11)



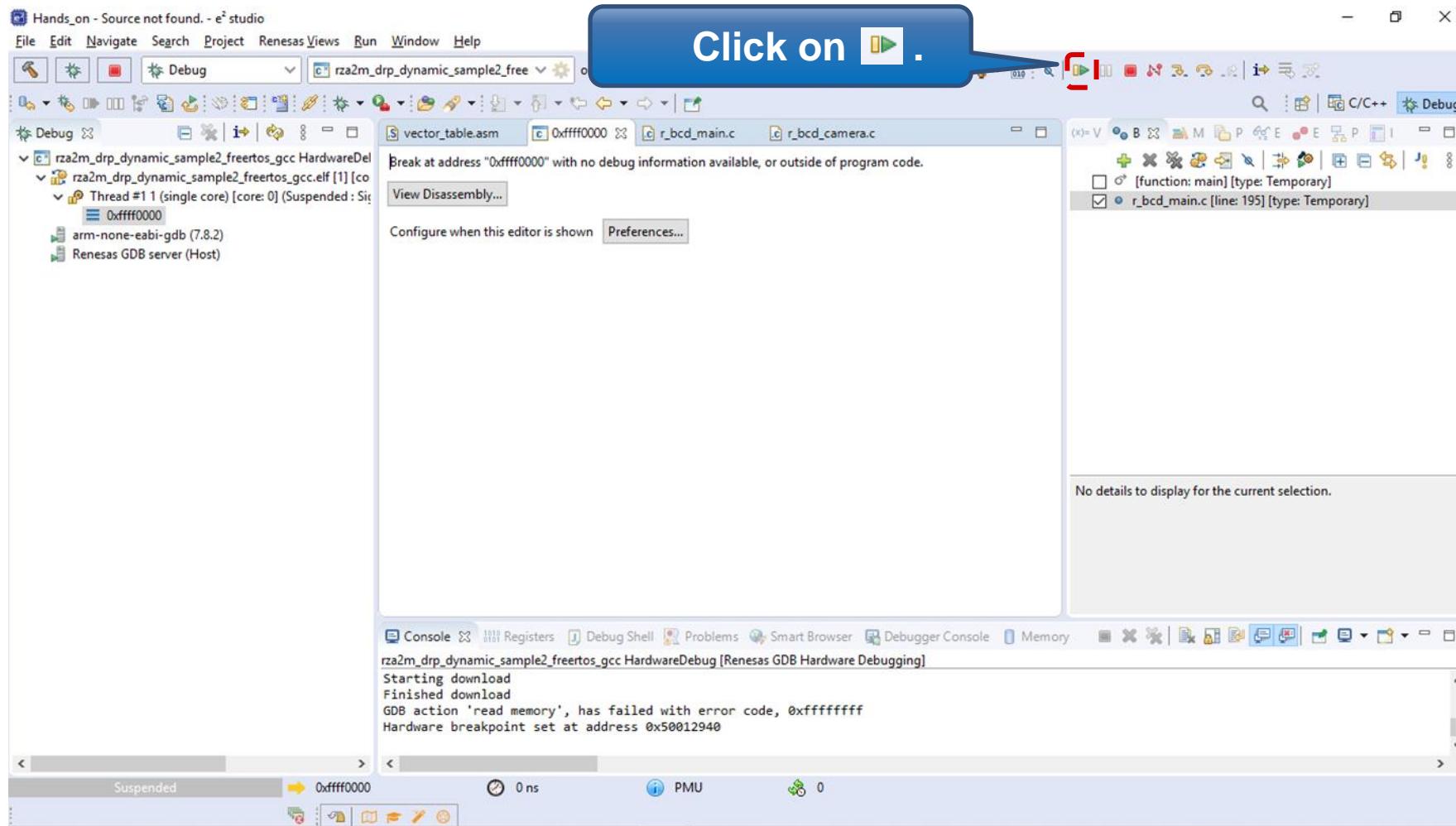
# DEBUGGING PROCEDURE OF SAMPLE PROGRAM (7/11)



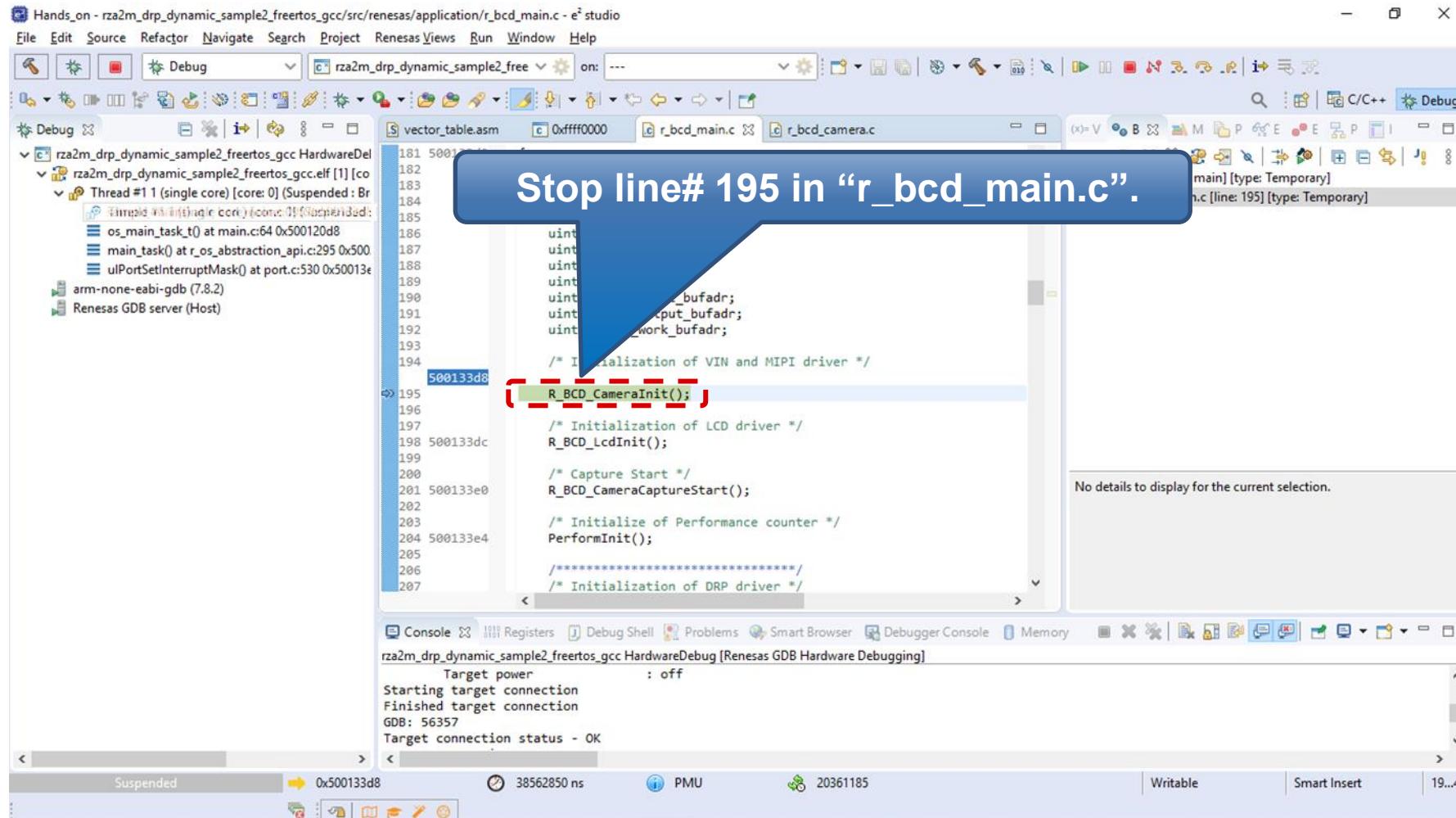
# DEBUGGING PROCEDURE OF SAMPLE PROGRAM (8/11)



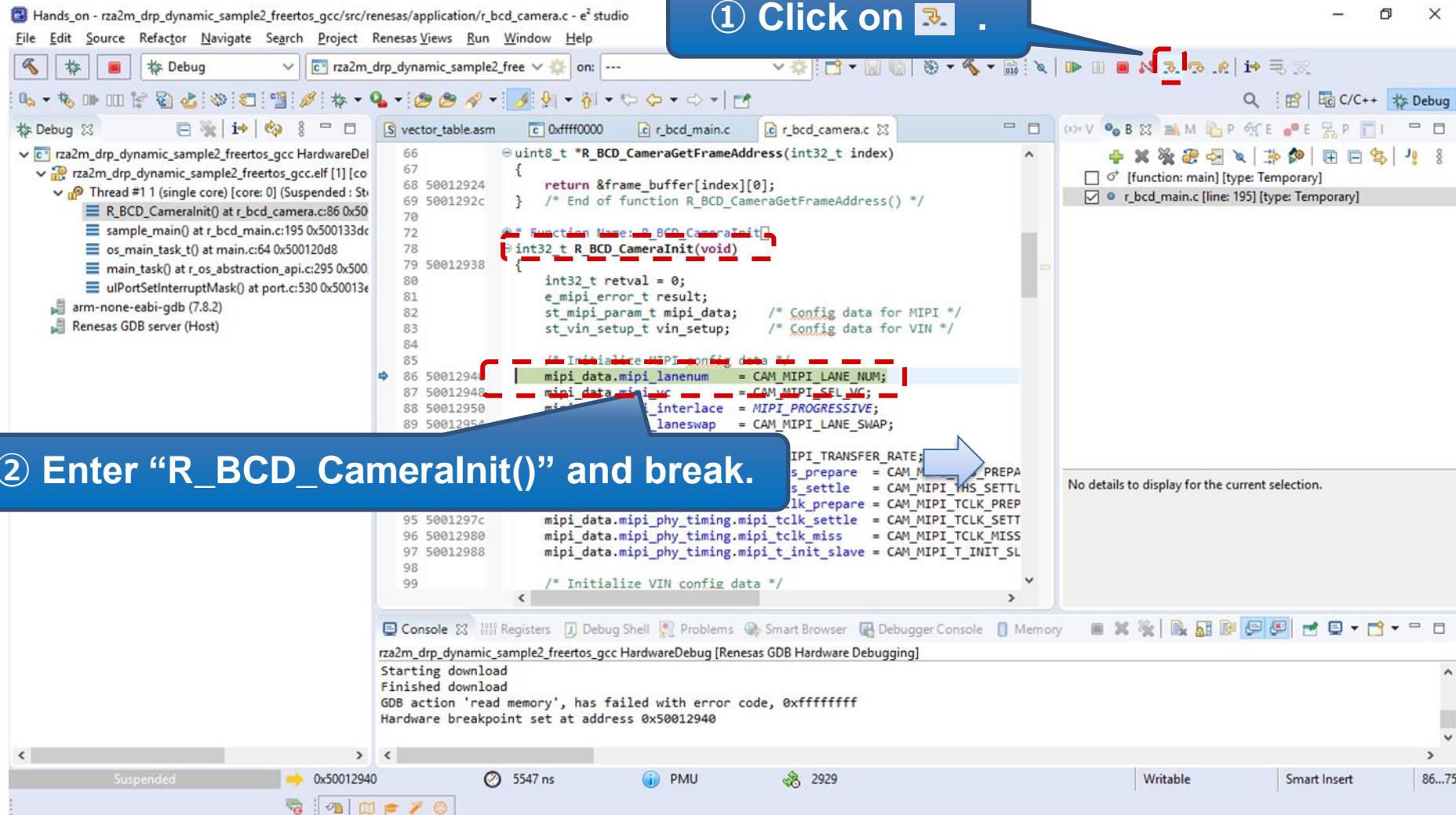
# DEBUGGING PROCEDURE OF SAMPLE PROGRAM (9/11)



# DEBUGGING PROCEDURE OF SAMPLE PROGRAM (10/11)



# DEBUGGING PROCEDURE OF SAMPLE PROGRAM (11/11)



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[Renesas.com](https://www.Renesas.com)