Prerequisites:

Make sure that host tools and the extensions are installed, if not, follow the instructions the last page. Or check out this video: https://www.youtube.com/watch?v=WtQWrpUYF1g

Lab 1 – Hello World

The purpose of this lab is to get started with zephyr and the hands on labs environment, it is important to do theses steps as all the following labs are based on this one.

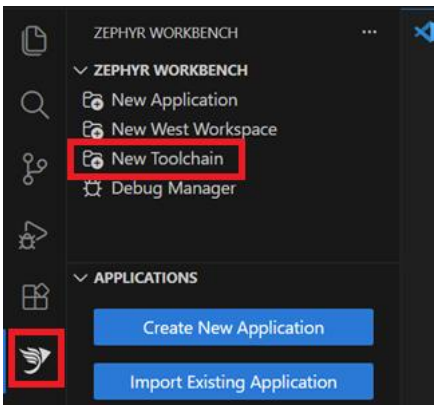
In case you have faced any problem, make sure that you have the right host requirements and installed the dependencies.

The lab consists of 7 steps, make sure that you follow them.

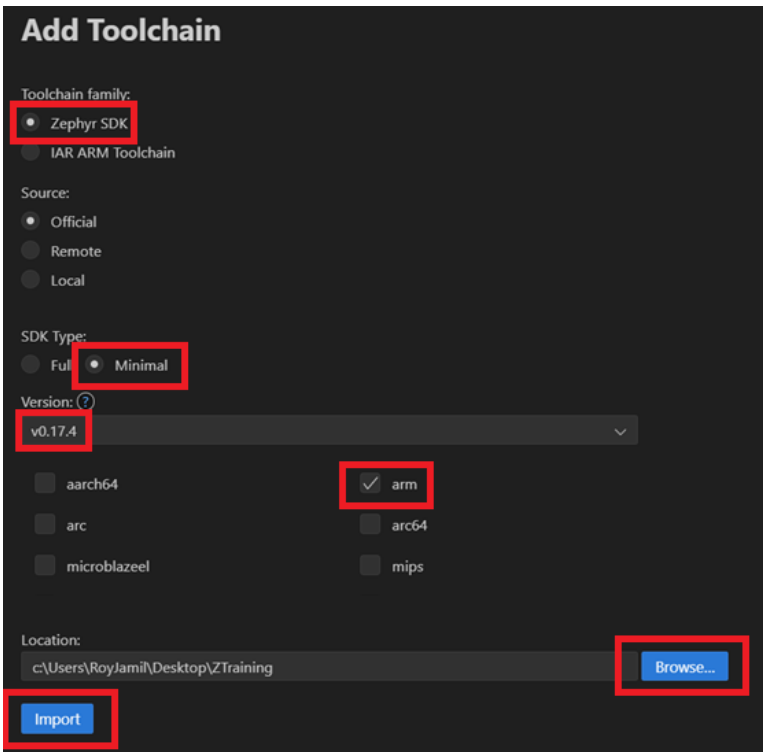
Note: in this lab, you may have already done some of the steps, but follow till the end, so that confirm that we all have a working environment

1- Import Zephyr SDK – (if not already imported)

- Open the workbench extension, then click on “New Toolchain”



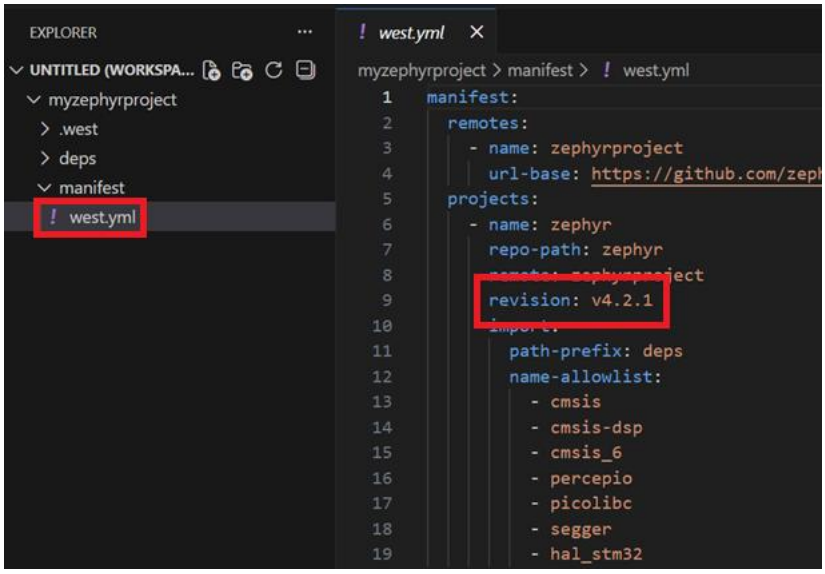
2- Import the Zephyr SDK v 0.17.4 for ARM (if not already imported)



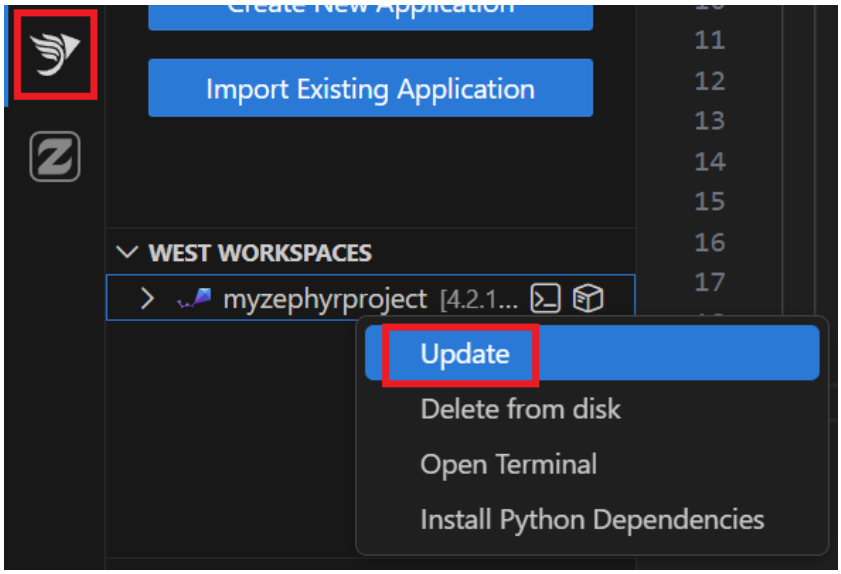
3- Import the West Workspace

3.1 - If you already have a working west workspace, make sure you are on the version 4.2.1, if not go to the section 3.2

- Open the west.yml in: <west workspace>/manifest/west.yml
    - Check the revision, set it to v4.2.1 if it is different

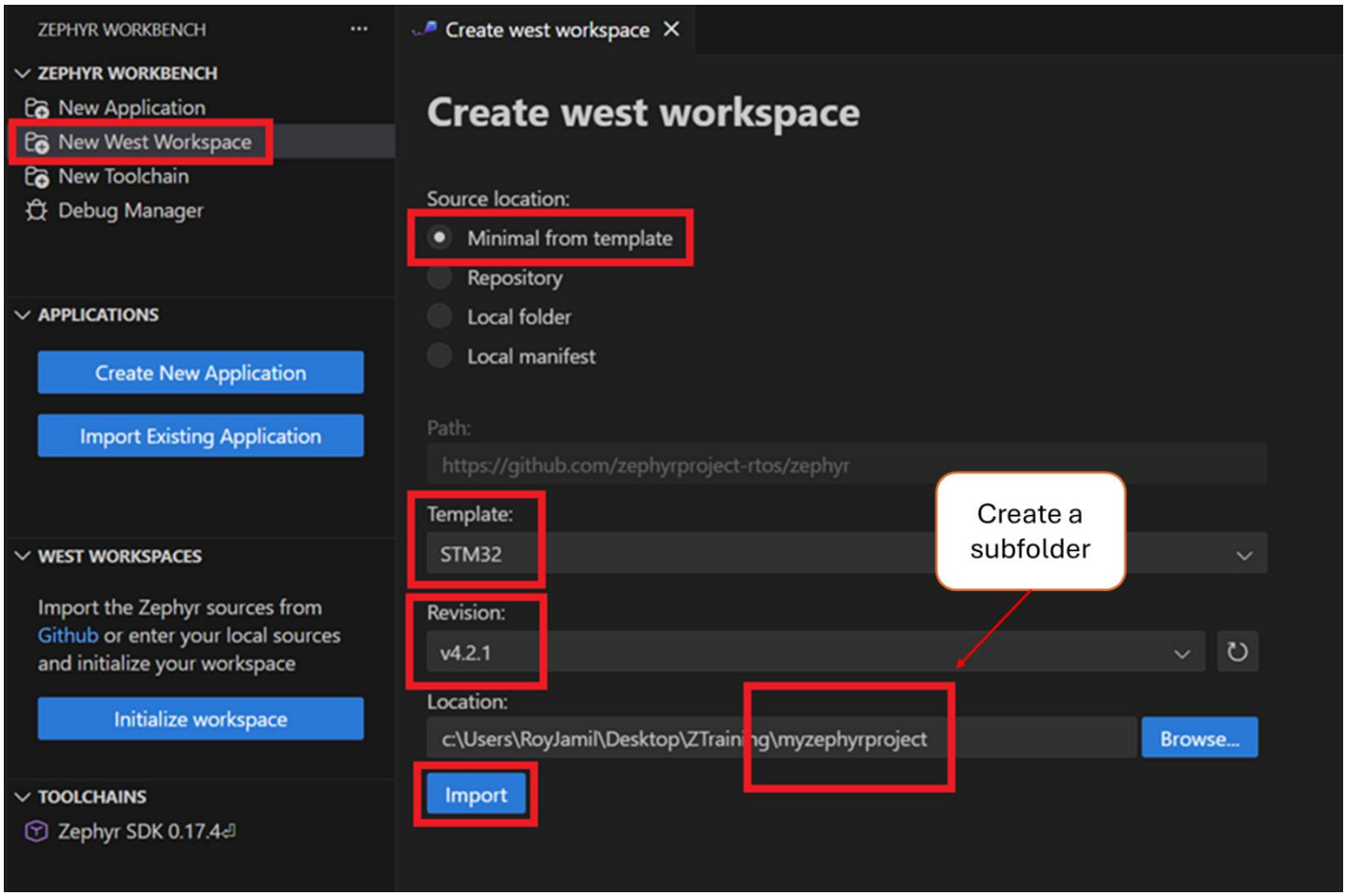


- Update west workspace:
    - Right click on the west workspace already imported then => update

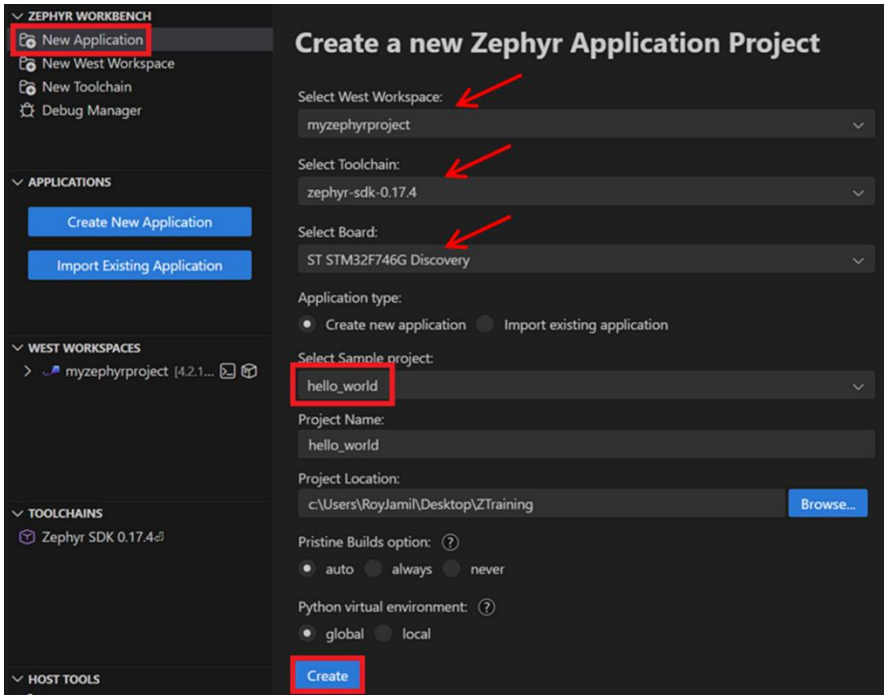


3.2 - If you have not already imported the workspace you need to import it (skip, if you already imported it):

- “New West Workspace” => minimal => STM32 => v4.2.1 => specify the folder (put it in a subfolder) => Click “Import”

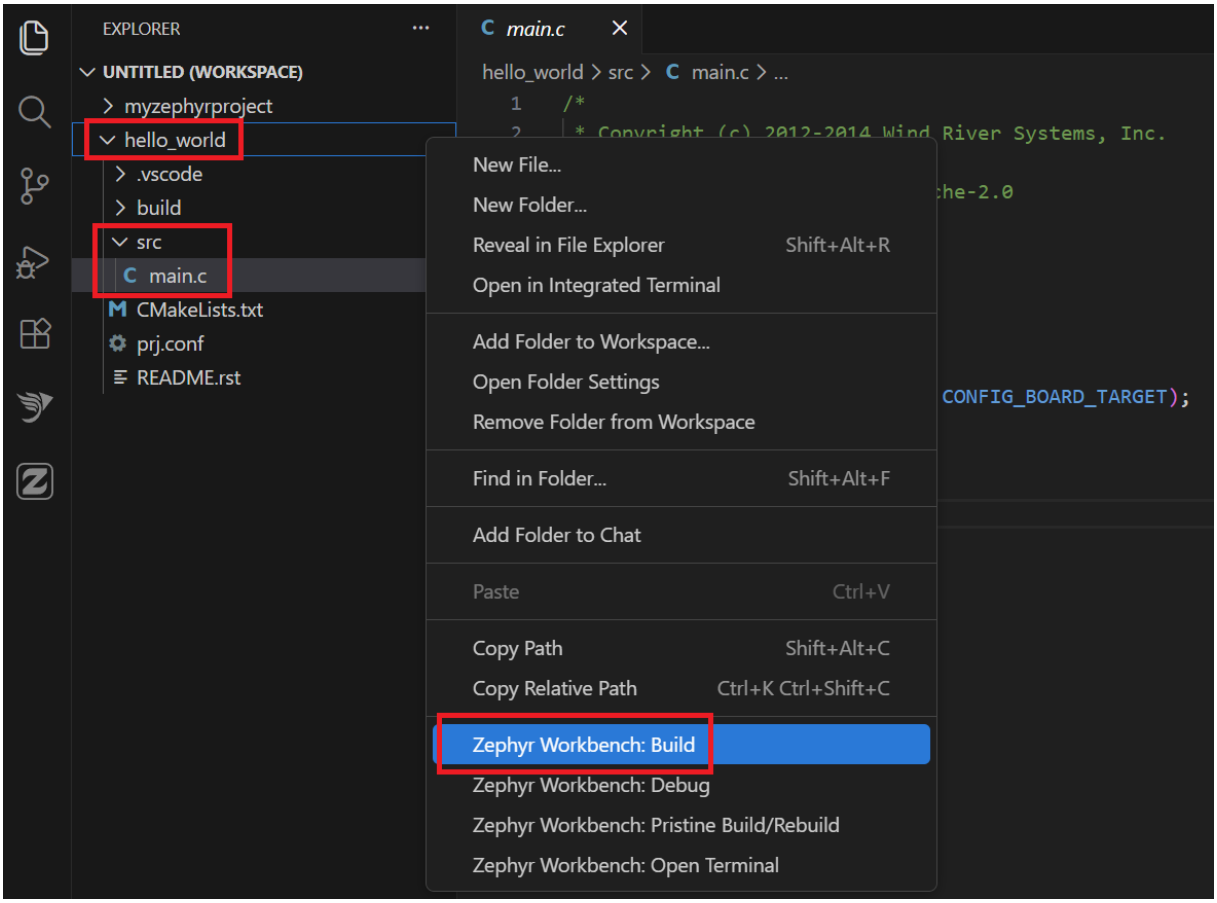


4- Create the Hello world application:

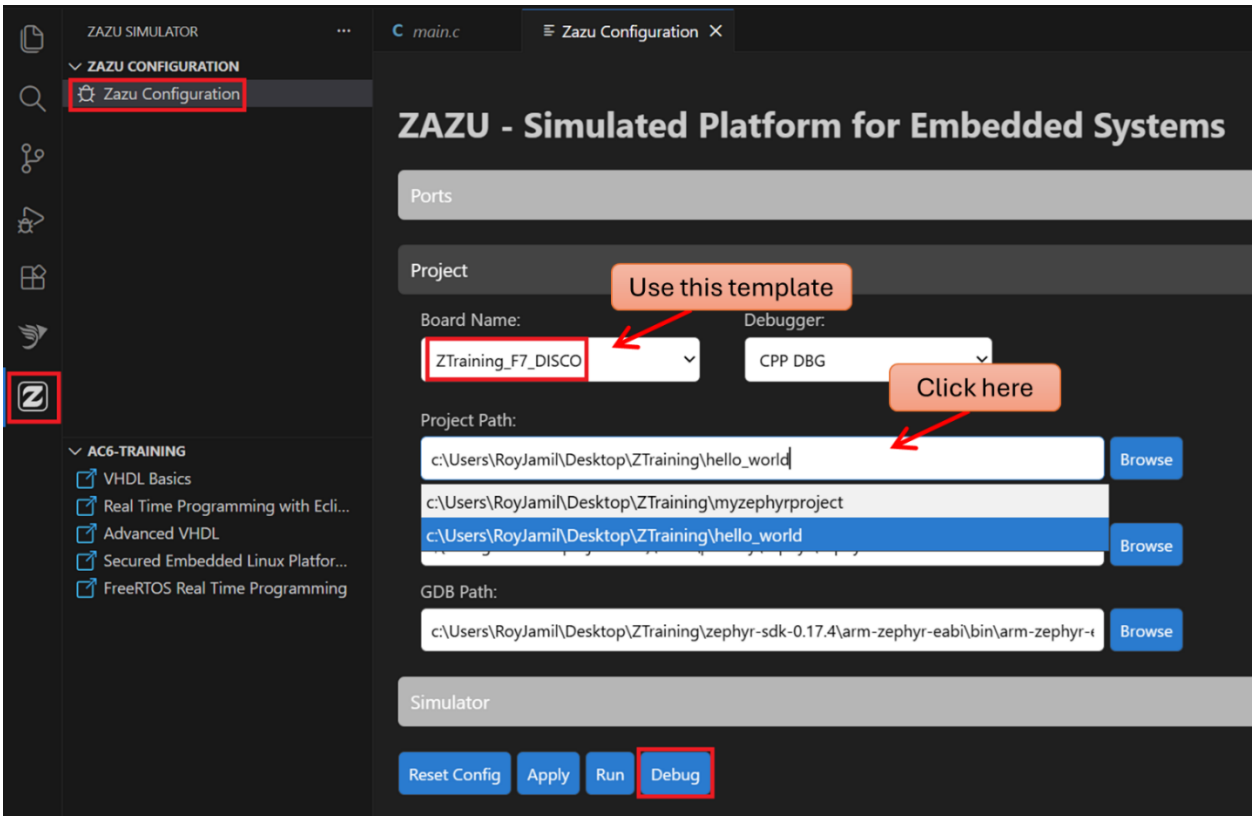


5- Build the application:

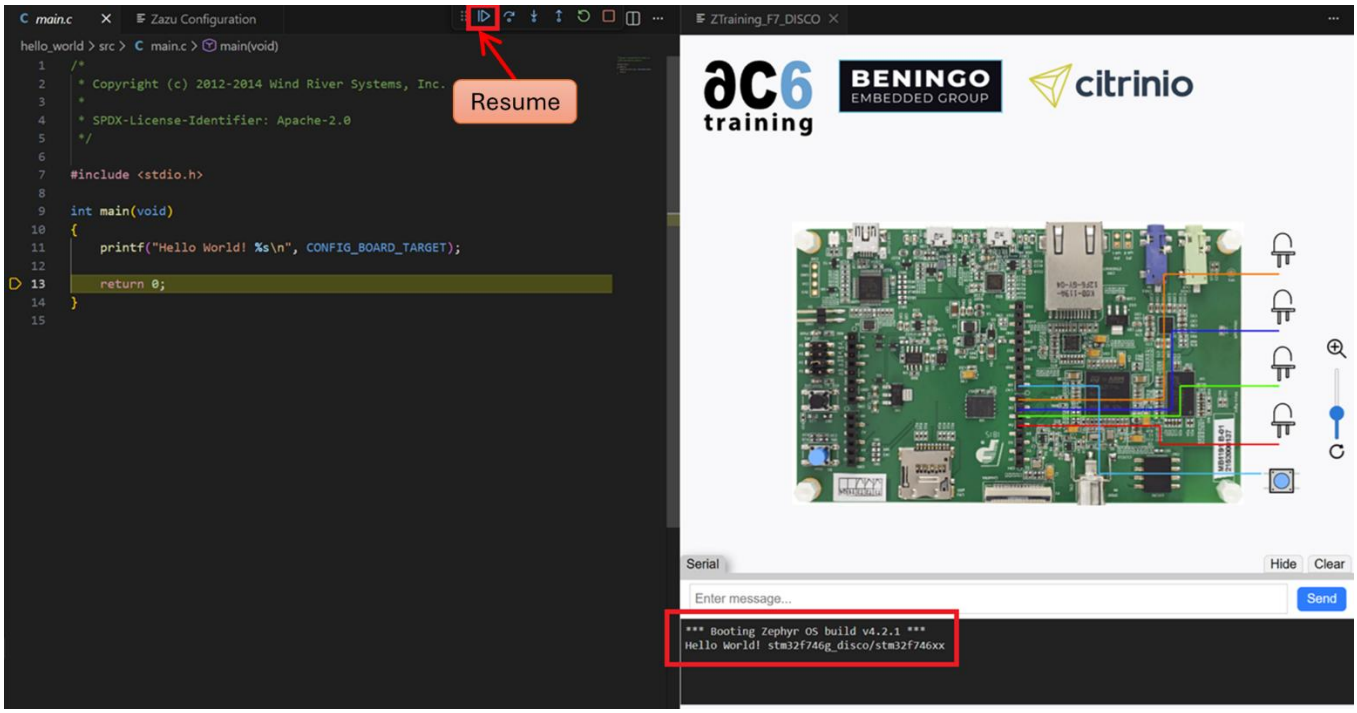
- Right click on the Hello World application, then build



6- Run and Debug:



7- Application Running:



Software installation

The following software need to be installed onto each delegate PC (only Windows 10/11, Ubuntu > 20.04 or MacOS (ARM)) - If your system is not supported, please use the provided Docker image:

- Visual Studio Code (VSCode)
- Workbench for Zephyr Extension
- Zazu Simulator
- Percepio View

A) VSCode (if not already installed)

- Download the installer from
  - https://code.visualstudio.com
- Install using the default options
- Alternatively, you may use the VSCode portable (this avoids modifying your existing VSCode configuration)

NOTE: You can follow this YouTube video to install and test the extensions B) and C):
https://youtu.be/WtQWrpUYF1g

B) Workbench for Zephyr extension

- Open VSCode
- Click on “Extensions” icon on the left 
- Search for “Workbench for Zephyr”
- Click on install
- Open Zephyr Workbench Extension using this icon 
  - Under the “HOST TOOLS”
  - Click on “Install host tools”

C) Zazu Simulator extension

- Click on “Extensions” icon on the left 
- *Search for “Zazu Simulator”* 
- *Click on install*
- *Install dependencies under “DEPENDENCIES” panel*

D) Percepio View

- Visit this link: https://traceviewer.io/get-view/?target=Zephyr
- Download and install the tool
- Optional: Register to access more tracing functionalities