Tools and software needed before learning:

1. **Vivado** software is relatively large and needs to be downloaded separately.

2. You need a **PDF reading tool**

3. You need a decompression software, recommend **WinRar**

4. Other software also needs to be downloaded separately. We will provide a download package containing various software, Linux source code root file system, etc., generally provide download link when purchasing, if necessary, please contact customer service to request download link.Note that the tutorial uses **Vivado 2020.1**. If you use other versions, you may encounter unpredictable problems. If you encounter problems due to software version mismatch, no technical support is provided.

Documents directory structure:

Content	Content/File	Description
factory_file	AXU5EV-P factory bsp.rar	Factory image BSP
	AXU5EV-P_factory	Factory image
	factory_vivado.zip	Factory vivado project
	SD Card is Restored to the Factory State.pdf	Guide how to restore the factory image
00_Hardware	Schematic_PCB_Form Factors	The Schematic, PCB, Form Factors of Core Board and Carrier Board
	Chip Manual	The chip datasheet used in the FPGA Development Board
AXU5EV-P User Manual.pdf		AXU5EV-P User Manual.pdf
course_s0_ALINX_Xilinx development platform Environment Installation Tutorial.pdf		Development environment installation, including vivado/vitis software installation, virtual machine, linux tool installation
course_s1_ALINX_ZYNQ_MPSoC development platform FPGA Tutorial V1.03.pdf		Pure FPGA logic development tutorial, does not include the ARM part
course_s1_fpga.zip		The vivado project for pure FPGA logic development
course_s2_ALINX_ZYNQ_MPSoC development platform Vitis Application Tutorial V1.03.pdf		Bare metal development tutorial, mainly including vivado project construction, ARM bare metal program development

course_s2.zip	Supporting projects for bare metal development, including vivado project and vitis bare metal project
course_s2_addition.zip	Bare Metal EMMC Test Engineering
course_s3_ALINX_ZYNQ_MPSOC development platform Linux Basic Tutorial V1.01.pdf	Linux development basic tutorial, mainly petalinux customized linux system
course_s3.zip	Linux development basic tutorial supporting petalinux project, startup files, applications, etc.
course_s4_ALINX_ZYNQ_MPSoC development platform Linux Driver V1.03.pdf	Linux driver development tutorial, including various peripheral driver development, such as USB/SPI/I2C/DMA, etc.
course_s4.zip	Linux driver development supporting program
course_s5_ALINX_ZYNQ_MPSoC development platform Linux Application Tutorial V1.01.pdf	Linux application development tutorial, including QT, OPENCV, camera and other applications
course_s5.zip	Linux application development supporting program
course_s6_ALINX_ZYNQ_MPSoC development platform HSL Tutorial V1.02.pdf	HLS development tutorial, introducing how to implement HLS engineering and related routines
course_s6.rar	HLS development supporting HLS/VIVADO/VITIS project
lwip routine private library file.rar	Course_s2 bare metal lwip routine modification library, can be replaced according to the tutorial
AXU5EV-P_AI.rar	Vitis-AI tutorials and Documents
vcu_demo.zip	VCU video codec Demos
ReadMe_Documents Directory.doc	Documents list

Precautions:

1. please do not use Chinese and spaces for computer user names.

2. all file paths in the development process, please do not have Chinese characters, spaces, etc., including the source files of the installation files

3. do not copy the code in the PDF, may lead to errors