Kneron KL720 USB Dongle

Specification

2021 July

Revision History:

version	Description	date
0.1	Initial version	2021/07/22
0.2	Specification update	2021/07/29

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KL720 USB Dongle Specification

Product Outline

Online Store：KNEO (kneroncloud.com)

Hardware Feature List

Item		KL720-USB Dongle
Maker		Board Maker
Part Number		KP72B340A-D1003
Chipset		KL720B3421B
Board size		70x25 mm
Power	USB TYPE C	USB3, max 500mA
Boot	SPI NAND	1Gb
Data transfer interface		USB3 device
Connective Interface		USB Type C
LED		· Light – system power on · Blink – system activity
Embedded memory		128MB
Support operating system		· Windows @ 64bit · Linux @ 64bit · Raspberry Pi
Support AI model		· Yolov5s · Customization model
Support AI framework		Caffé, Keras, Tensorflow, TensorflowLite, Pytorch, ONNX
Working Temperature		0 ℃ ~ 40℃
Storage Temperature		0 ℃ ~ 70℃
Certification		CE/FCC
Package		· USB Dongle · TYPE-C cable, support auto swap

Installation Guide

Environment Setup

Linux

Before building code, some build tools and packages must be set up for the first time.

- Install **libusb-1.0.0-dev**, **cmake**, and **build-essential**.

- sudo apt **install** libusb-1.0-0-dev

- sudo apt **install** cmake

- sudo apt **install** build-essential

Windows(MINGW64\MSYS)

WinUSB installation

You will need administrator's rights to perform the installation.

When a Kneron device is connected to a Windows PC for the very first time, Windows might report that it failed to find a USB driver automatically.

This section explains how-to install the driver manually.

The instruction is valid for Windows 10 version only.

1. Download **Zadig** application from zadig.akeo.ie appropriate for Windows 10.
2. Connect Kneron device to your PC.
3. Run the Zadig application. The application should detect device as "**Kneron KL720**" with USB ID "**3231/0200**" and the screen should look like that:
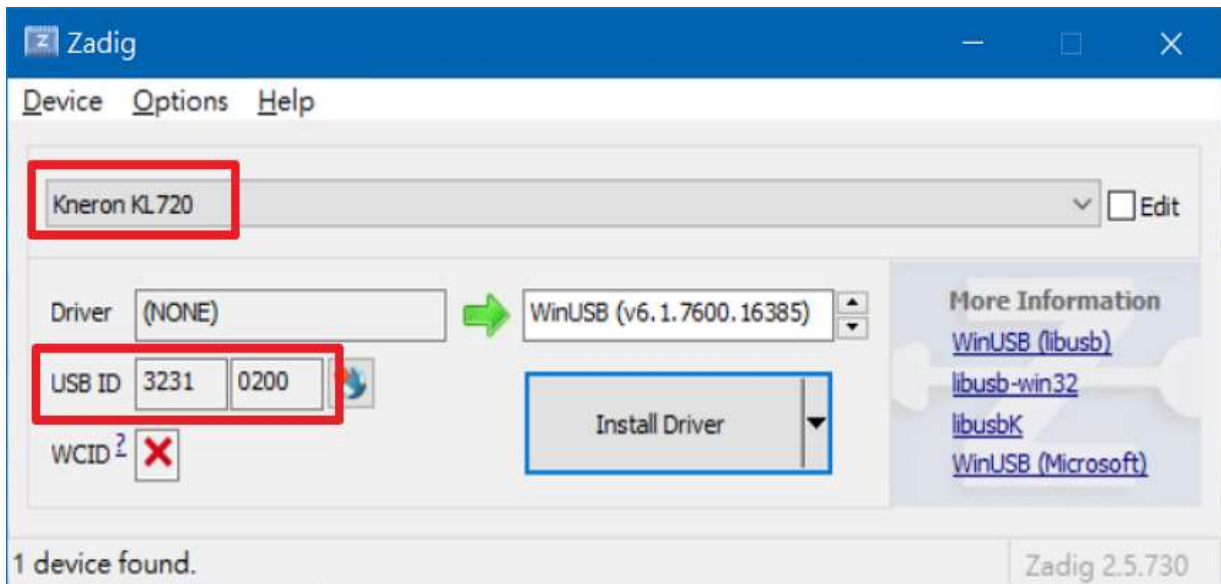
Make sure that the **Driver** field, has **WinUSB** option selected.

4. Click "**Install Driver**" button.

When installation process is finished, "**Kneron KL720**" can be found in Windows Device Manager under **Universal Serial Bus Devices** tree node.

Environment, gcc, etc.

- Install git for windows SDK (MUST BE!)

  Get git for windows SDK (MUST BE!) installed.

- Install **libusb**, **cmake**.

- pacman -S mingw-w64-x86_64-libusb

- pacman *--needed -S mingw-w64-x86_64-cmake*

- Install opencv_3.4

  - o   Get opencv_3.4.1, mingw-w64-x86_64-opencv-3.4.1-1-any.pkg.tar.xz.zip

  - o   Unzip mingw-w64-x86_64-opencv-3.4.1-1-any.pkg.tar.xz.zip to **mingw-w64-x86_64-opencv-3.4.1-1-any.pkg.tar.xz**.

  - o   Install mingw-w64-x86_64-opencv-3.4.1-1-any.pkg.tar.xz:

    pacman -U mingw-w64-x86_64-opencv-3.4.1-1-any.pkg.tar.xz