# KV260- Ubuntu- Smartcam Doc

March 7, 2023

## Steps:

1. Image Download from : https://ubuntu.com/download/amd-xilinx or https://people.canonical.com/~platform/images/xilinx/kria-ubuntu-22.04/iot-limerick-kria-classic-desktop-2204-x06-20220614-78.img.xz
2. Follow tutorial on **Setting up SD Card for Ubuntu** : https://www.xilinx.com/products/som/kria/kv260-vision-starter-kit/kv260-getting-started-ubuntu/setting-up-the-sd-card-image.html
3. **Update Kria firmware** according to 22.04 LTS Ubuntu from Wiki [https://xilinx-wiki.atlassian.net/wiki/spaces/A/pages/1641152513/Kria+K26+SOM], If not have yet.
4. Follow tutorial on **Booting Starter Kit**: https://www.xilinx.com/products/som/kria/kv260-vision-starter-kit/kv260-getting-started-ubuntu/booting-your-starter-kit.html
    a. Login Password is: ubuntu, it may ask you to change the password later on.
    b. It has commands like:

    ```
    sudo snap install xlnx-config --classic --channel=2.x
    xlnx-config.sysinit
    ```

    Above commands setup the necessary packages for “SmartCam like Kria Apps”. These commands may take some 30min to complete on KV260.
    **Alternative of above two commands are:**

    ```
    sudo add-apt-repository ppa:xilinx-apps
    sudo add-apt-repository ppa:ubuntu-xilinx/sdk
    sudo apt update
    sudo apt upgrade
    ```

    Above commands are provided at: https://xilinx.github.io/kria-apps-docs/kv260/2022.1/build/html/docs/kria_starterkit_linux_boot.html
    c. Also follow Step 6 and 7 for “enabling docker command without sudo” and install the latest xrt ZOCL driver.

5. Installing SmartCam, now follow this tutorial: https://xilinx.github.io/kria-apps-docs/kv260/2022.1/build/html/docs/smartcamera/docs/app_deployment.html
    a. This tutorial has commands like:
        i. Downloading and Loading Application Firmware
        ii. Docker based application preparation (Docker Pull and Docker Run)

    b. Run the SmartCam with Command line:
    c. Examples of supported combinations sorted by input are outlined below
        i. There are examples for USB Camera and MIPI Camera as input and File or DP output as output method.
6. Demo completes, now you can go for “other Kria-Apps demo” or for custom Kria-App development.

7. BOOT LOG of “Step 1 to Step 6” is here:

# KR260- Ubuntu- ROS 2 Perception Node Application Doc

Follow this link : https://www.xilinx.com/products/som/kria/kr260-robotics-starter-kit/kr260-getting-started/launch-the-ros2-perception-node-app.html

Or follow this direct link: https://xilinx.github.io/kria-apps-docs/kr260/build/html/docs/ros2_perception_node/ros2_perception_node_landing.html

This for Settingup: https://xilinx.github.io/kria-apps-docs/kr260/build/html/docs/kria_starterkit_linux_boot.html

And this: https://xilinx.github.io/kria-apps-docs/kr260/build/html/docs/ros2_perception_node/docs/app_deployment.html