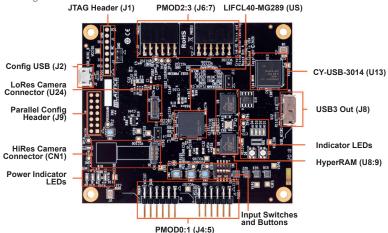


# Crosslink-NX Voice and Vision Machine Learning Board

This document provides a brief introduction to the Crosslink-NX Voice and Vision Machine Learning Board. The board is pre-programmed to demonstrate the Human Counting Demo.



### **Check Kit Contents**

The Crosslink-NX Voice and Vision Machine Learning Board kit contains the following items:

- CrossLink-NX Voice and Vision Machine Learning Board
- HM360 camera sensor (1 sensor, mounted on board)
- USB Cable for Programming via PC (USB-A to Micró-B)
- USB Cable for video output (Micro-B to USB-A)
- Quick Start Guide

### **Preparing the Hardware and Running the Demonstration**

Follow the steps below to prepare the hardware and start the demonstration, which is pre-programmed on the board.

- Connect USB2 cable from PC to Config USB (J2). This will power the board with a 5 V supply.
- Connect USB3 cable from Video Out USB3 to PC (J3)
- No jumpers need to be placed on board
- Set SW1[4:1] inputs to the 1000 setting (ON side = 0)







## Crosslink-NX Voice and Vision Machine Learning Board

- Set SW1[4:1] inputs to the 1000 setting (ON side = 0).
- For Windows, download and install AMCap (www.noeld.com/programs.asp?cat=video) or VLC (www.videolan.org/vlc/). For Linux, only VLC is available.
- For Windows, Open the AMCap or VLC application and select the FX3 Device as source. For AMCap, it will appear in the Device menu. For VLC, it will appear under the Media -> Open Capture Device menu. Note: In Linux VLC, check which video/device is the FX3 camera Video Capture is assigned.
- The output of the demo will be observed on the monitor as a single video stream.
- This is the human counting demo. Demo output will contain bounding boxes for detected humans in a given frame and it will display total number of detected humans in a given frame on PC.





#### Done!

Congratulations! You have successfully demonstrated the Human Presence Detection demo on the Crosslink-NX Voice and Vision Machine Learning Board. This demo is intended to show basic functionality of the kit as shipped. This kit can be reprogrammed and/or connected to additional hardware (available separately) to demonstrate a number of bridging solutions. To learn more about these solutions and download full documentation for this kit, including schematics for all the boards, visit the Lattice website at: www.latticesemi.com/evdkit.

Development with the Lattice Crosslink-NX FPGA is supported by the Lattice Radiant Software. You can learn more and download the latest version from the Lattice website at www.latticesemi.com/radiant.

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#### Technical Support

www.latticesemi.com/support

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