

The XS1-G Development System contains everything you need to start exploring the XMOS Software Defined Silicon technology. Please take time to let us know how you get on. Your feedback is invaluable as it allows us to help you deliver your solutions.

### Before you start

Please make sure that all the following items are in the box before you start using the XS1-G Development System:

- × XS1-G Development Kit (XDK) – the black box with all the electronics and hardware
- × 12V power supply unit and local AC power cable
- × USB cable – connects your system to the XDK
- × XMOS Link cable (x 2) – connects the XDK to other devices using XMOS Link sockets. XMOS Link cables have the same form factor as Ethernet cables, but are crossover cables that can only be used for linking to XDK XMOS Link sockets

If anything is missing, please contact your XS1-G Development System supplier.



### Switch the kit on and run the demos

1. Plug in the XDK using the supplied power cable
2. Slide the ON/OFF button (below the power socket) up to switch the XDK on and wait for the splash screen to be displayed
3. Press the MENU (black/middle) button to go to the Menu page
4. Press the UP (red/left) and DOWN (green/right) buttons to scroll through the demos. See the *Demonstrations* sheet for information on each demo
5. Highlight the Pong demo (PONG.XB) and press the RUN (blue) button to play the demo; use the UP/ABOUT buttons to move the left pad, and the RUN/DOWN buttons to move the right pad
6. Press MENU to go back to the Menu screen

Try the other demos - note XDK.XB is the XDK menu program and appears to reset the XDK when run. When you have finished go to the MOREAPPS.XB option.

#### **xlinkers.org**

Please go to <http://www.xlinkers.org>, a website that serves the XMOS community, to make contact with other users and find answers to your questions.

## Mac OSX Users: Download and configure the tools

1. Connect the XDK to your development system to the USB socket on the left side of the XDK (next to the power supply) using the USB cable provided
2. Make sure the XDK is switched on. Press and hold the UP button (left/red), then press and release the RESET button. After the top left LEDs flash three times, release the UP button. The XDK is now in JTAG mode and you can load programs using the USB cable
3. Go to: <http://www.xmos.com/desktop-tools-download> and download the Desktop Tools
4. Run the installer to install the tools. Follow the instructions on screen
5. Go to the Desktop Tools installation folder (Applications/XMOS/DesktopTools/*version*/) and double-click the *SetEnv.command* file to open a Terminal window and configure the tools
6. Run the following command to list all the XMOS devices attached to your system:  

```
xrun --listdevices
```

The first XMOS device is listed at index 0
7. Go to <http://www.xmos.com/xdk> and download the Flashing LED example to your Debugger Tools folder (the folder must have read/write access)
8. Use the Terminal prompt to go to your Desktop Tools folder and run the command:  

```
xrun xdk_flashing_leds.xe
```

The demo is loaded onto the XDK card and flashes the LEDs in sequence

## Microsoft Windows Users: Download and configure the tools

1. Connect the XDK to your development system to the USB socket on the left side of the XDK (next to the power supply) using the USB cable provided
2. Make sure the XDK is switched on. Follow the New Hardware instructions on your computer screen. Select **Yes this time only** when Windows prompts you to **Connect to Windows Update**, and **Next** on the following screens—there should be two hardware devices and one serial port  
NOTE: The Development Tools installer includes a set of drivers that you can use instead of using Windows Update, but they are not guaranteed to be the latest version of the drivers. They are copied to the *Desktop Tools/Drivers* directory during installation.
3. Press and hold the UP button (left/red), then press and release the RESET button. After the top left LEDs flash three times, release the UP button. The XDK is now in JTAG mode and you can load programs using the USB cable
4. Go to: <http://www.xmos.com/desktop-tools-download> and download the Desktop Tools
5. Run the Windows Installer to install the tools. Follow the instructions on screen
6. Select **Start>Programs>XMOS>Desktop Tools *version*>Desktop Tools Prompt** to open a command prompt and configure the tools

### XMOS Support

For further information on configuring the USB drivers, using the XDK, example programs, software updates, and documentation, please go to:

<http://www.xmos.com/support>

7. Run the following command to list all the XMOS devices attached to your system:

```
xrun --listdevices
```

The first device is listed at index 0

8. Go to <http://www.xmos.com/xdk> and download the Flashing LED example to your Debugger Tools folder (the folder must have read/write access)
9. Use the command prompt to go to the Desktop Tools folder and run the command:

```
xrun xdk_flashing_leds.xe
```

The demo is loaded onto the XDK and flashes the LEDs in sequence

## Linux Users: Download and configure the tools

1. Connect the XDK to your development system to the USB socket on the left side of the XDK (next to the power supply) using the USB cable provided
2. Log into a shell with root permissions, open the file `/etc/fstab` and add the line:

```
none /proc/bus/usb usbfs defaults,devmode=0666 0 0
```

3. Unmount and remount the USB file system, and log out from root access
4. Press and hold the UP button (left/red), then press and release the RESET button. After the top left LEDs flash three times, release the UP button. The XDK is now in JTAG mode and you can load programs using the USB cable
5. Go to: <http://www.xmos.com/desktop-tools-download> and download the Desktop Tools
6. Unpack and install the tools to the directory `/home/user`. Type:

```
tar -xzf DesktopTools_version.tgz -C /home/user
```

The archive is unpacked into the subdirectory `Xmos/DesktopTools/version/`.

7. Go to the Desktop Tools folder and edit the first line of `setup.bash`:
8. Set up the environment variables required to use the tools by typing:
9. Run the following command to list all the XMOS devices attached to your system (the first device is listed at index 0):

```
xrun --listdevices
```

10. Go to <http://www.xmos.com/xdk> and download the Flashing LED example to your Desktop Tools folder (the folder must have read/write access)
11. Go to your Desktop Tools folder and run the following command (if you have more than one XMOS device attached to your system, you need to specify the ID of the XDK using the `--device` switch):

```
xrun xdk_flashing_leds.xe
```

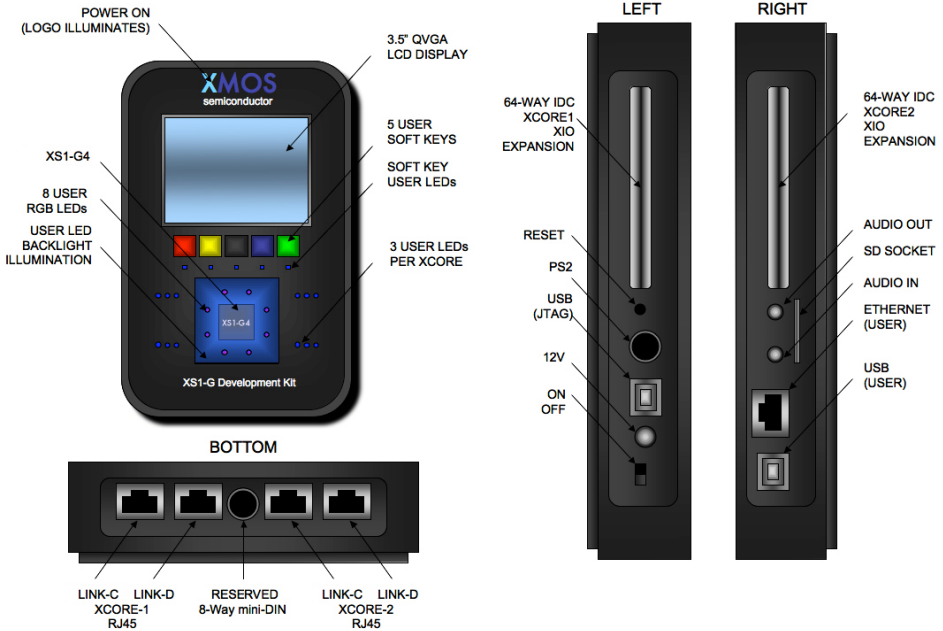
The demo is loaded onto the XDK card and flashes the LEDs in sequence

### XMOS Support

For further information on configuring the USB drivers, using the XDK, example programs, software updates, and documentation, please go to:

<http://www.xmos.com/support>

# XDK - Connectors and sockets



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