



xcore.ai Explorer Board Quick Start

Publication Date: 2020/9/3

Document Number: XM014238

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Just received your xcore.ai explorer board? Congratulations!

Here are a few steps to help get you started developing applications for multicore micro-controllers:

1. Download and install the command-line development tools v15 or higher:
 - ▶ <https://www.xmos.ai/software-tools/>
2. Start a command line window with the tools. See the tools manual on how to do that for your particular platform

1 Hello World

Create a file `hello.c` with the following contents:

```
#include <stdio.h>

int main(void) {
    printf("Hello world\n");
}
```

Compile this program as follows:

```
xcc -O2 -Wall -target=XCORE-AI-EXPLORER hello.c -o hello.xe
```

In an ESD safe manner, unpack the board, the XTAG, the converter board, and the cable.

- ▶ Plug the ribbon cable into the header marked **XSYS2 DEBUG** on the explorer board (just below the xcore.ai chip). Note that the headers are boxed and keyed, the cable will only go in one way.
- ▶ If you have an XTAG4, then plug the other side of the ribbon cable into the XTAG4. Otherwise, plug the other side of the ribbon cable into the a converter board, and plug the converter board into an XTAG3 using the 20-pin IDC header.
- ▶ Connect a USB cable between your laptop and the USB micro port on the explorer board
- ▶ Connect a USB cable between your laptop and the XTAG

Execute the following on the command-line:



```
xrun -l
```

This should output something like:

```
Available XMOS Devices
-----
  ID      Name                Adapter ID    Devices
  --      -
  0       XMOS XTAG-3           QuAifiLM     P[0]
```

Which means that your computer can see an XTAG-3 adapter with identifier `QuAifiLM` and it is in turn connected to a single xcore.ai device `P[0]`.

Execute the following:

```
xrun --io hello.xe
```

This should output:

```
Hello World
```

Which has been executed on the board.

2 Real-time programs, TensorFlow, USB, and FreeRTOS

On github you will find a few more example programs to get you started:

<https://github.com/xmos>

3 Further information

Document title	Link and document number
XMOS tool chain	https://www.xmos.ai/software-tools/
xcore.ai Explorer Board Manual	XM-014233-PC

4 Revision History

Date	Release	Comment
2020-09-03	1.0	First release





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