

# **An Introduction to Lab4**

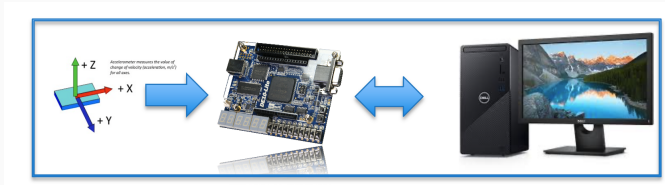
Lecture 5 for Information Processing

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Aaron Zhao, Imperial College London, [a.zhao@imperial.ac.uk](mailto:a.zhao@imperial.ac.uk)

# What is in this lab?

- Understand how to establish a communication process of a NIOSII system with a host PC.
- Establish a number of functions/commands that would allow you to communicate between the board and the host PC.
- Extra: Learn how to add off-chip memory to your system



# UART communication

- UART (universal asynchronous receiver-transmitter)
- Device to Device communication
- Asynchronous Serial Communication – (2 wires)
- Agreed frequency of reading – Baud rate
- PC is the master

1	5-9	0-1	1-2
Start Bit	Data Frame	Parity Bits	Stop Bits

# Lab structure

- Part 1: Give you an example to understand the communication
- Part 2: Integrate UART with Lab3
- Part 3: Add command to update the coefficient. Conversion of characters to numbers
- Part 4: Plot received accelerometer data at real time

<b>1</b>	<b>5-9</b>	<b>0-1</b>	<b>1-2</b>
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# Questions?

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