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Science and Technology

Department of
Computer Engineering

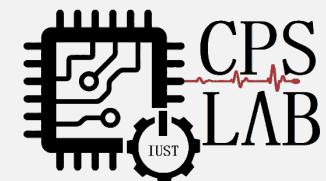
Computer Architecture Laboratory

Receive Data from Serial Port

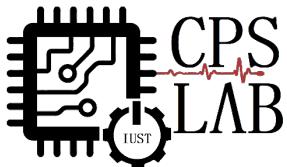
Lecturer: Ali Javadi

Javadi_ali@comp.iust.ac.ir

8th session



Cyber-Physical Systems Laboratory



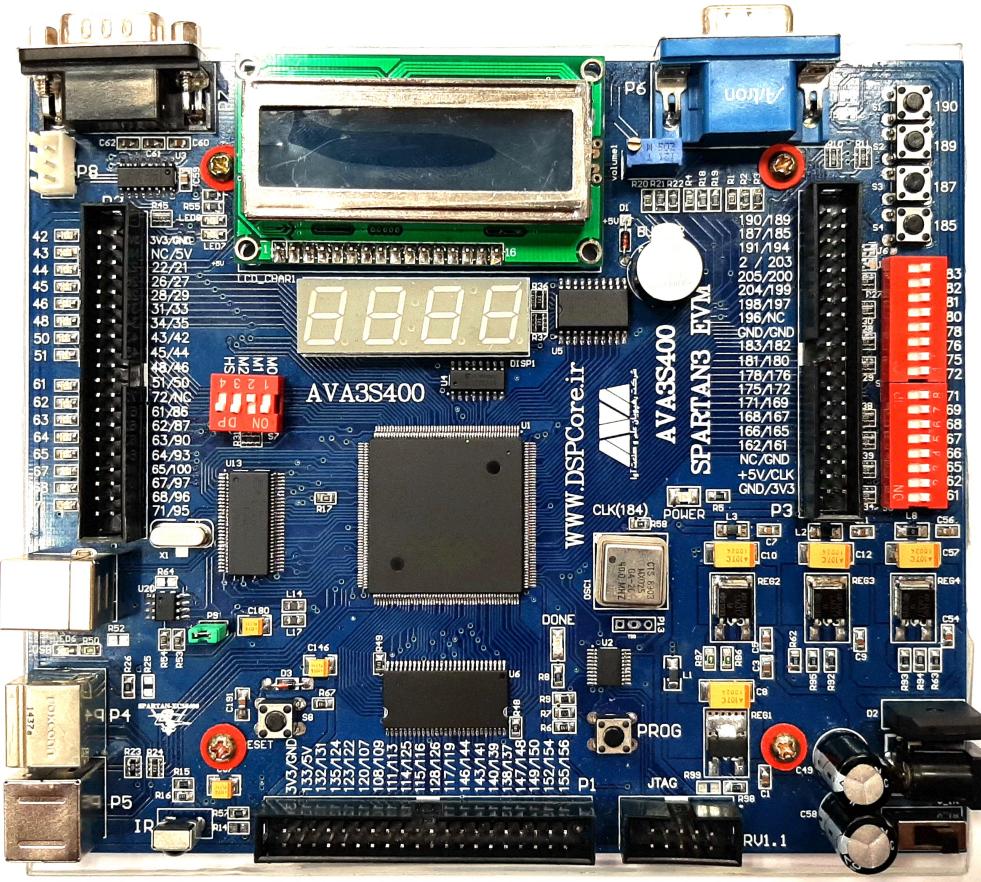
Overview

- RS-232 Physical Layer
- Circuit Schematic
- How to Read Protocol
- Experiment



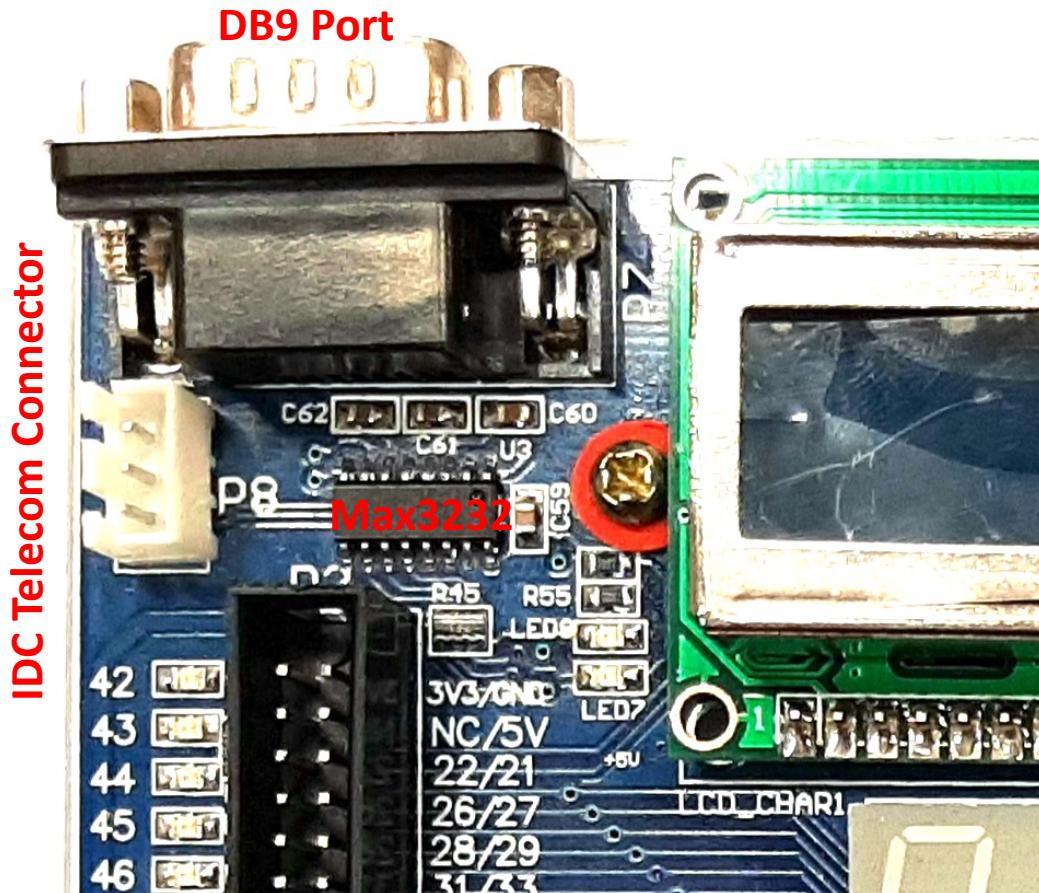
RS-232

Physical Layer



RS-232

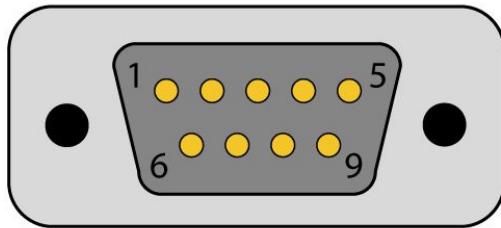
Physical Layer



RS-232

Physical Layer

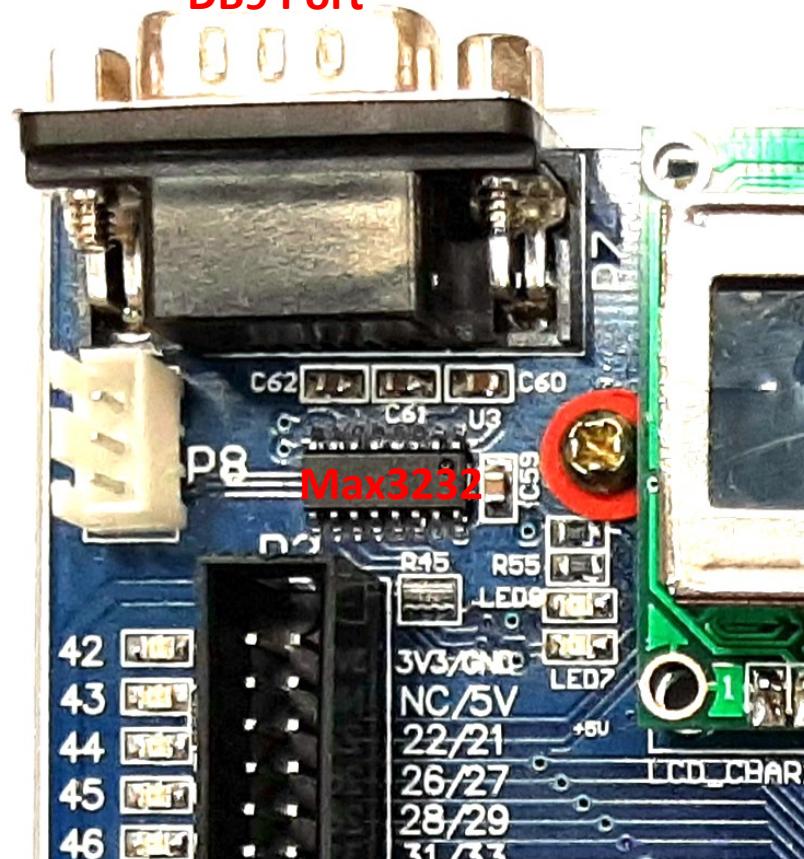
DB9M Connector



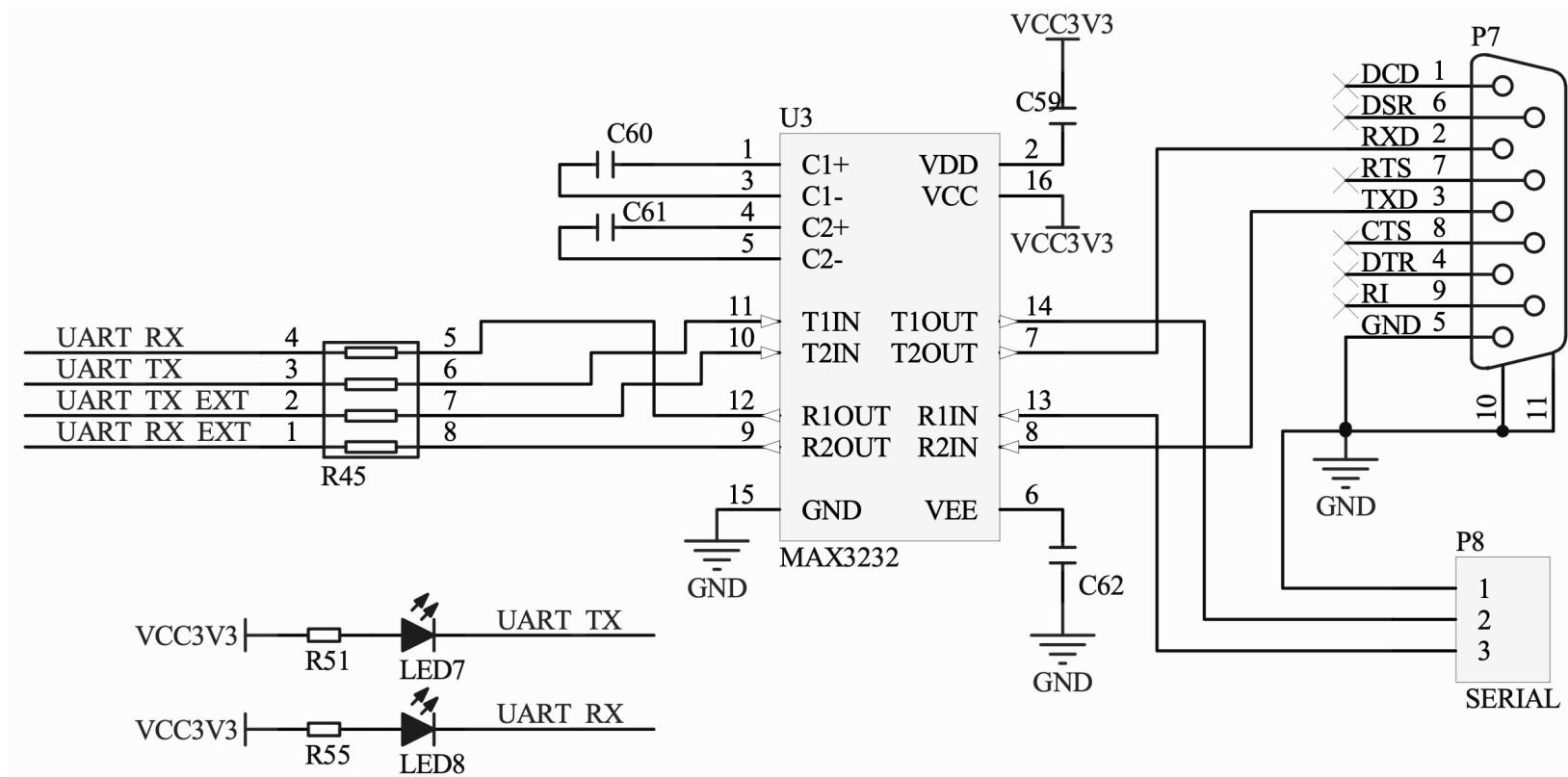
RS232 Pin Out

Pin #	Signal
1	DCD
2	RX
3	TX
4	DTR
5	GND
6	DSR
7	RTS
8	CTS
9	RI

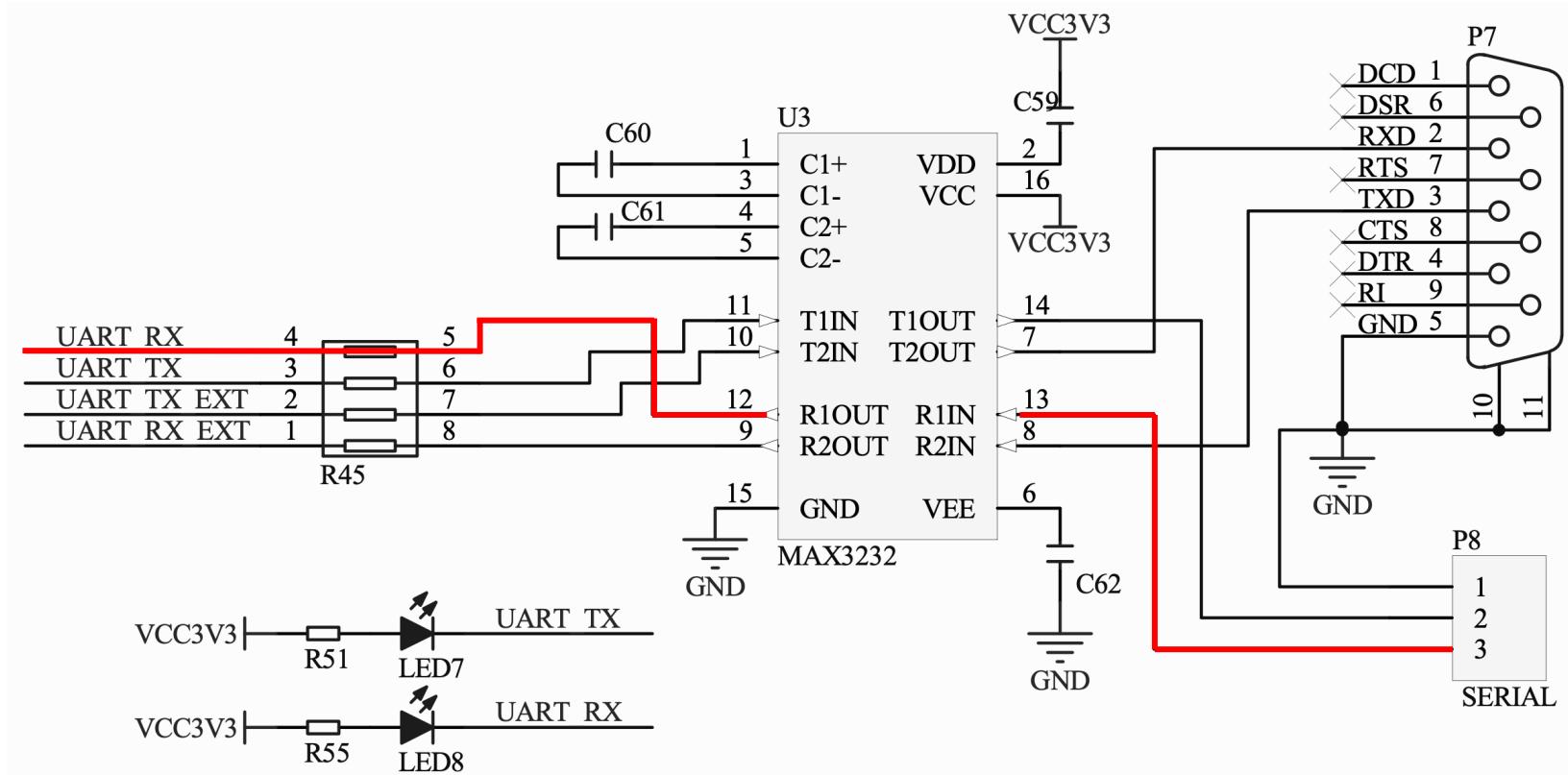
DB9 Port



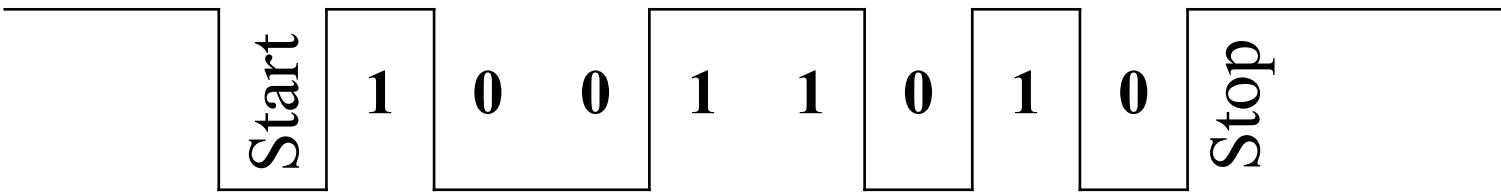
Schematic



Schematic

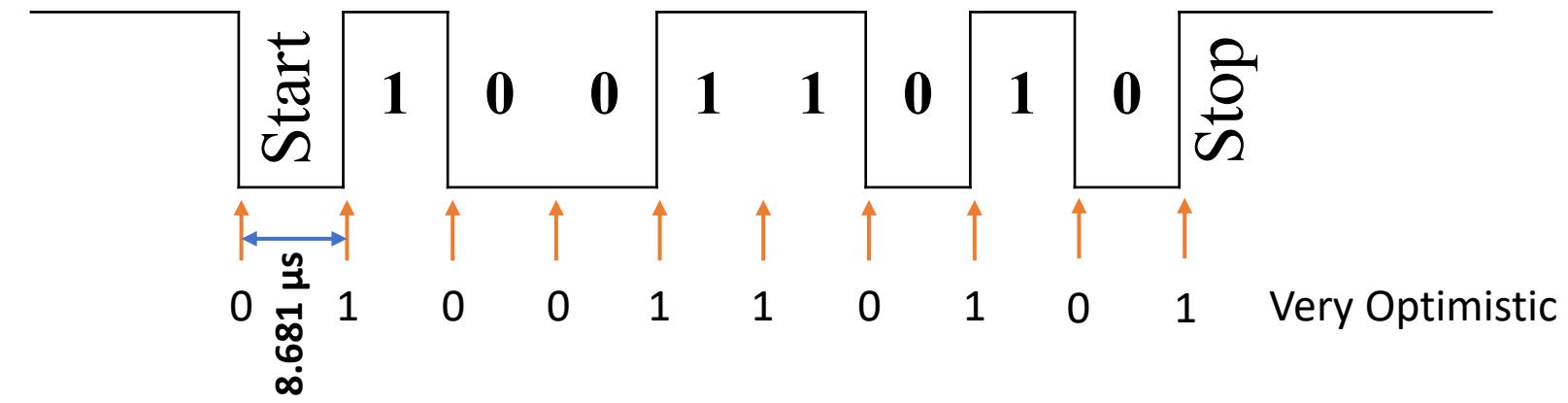


How to Receive Data From Serial Port?

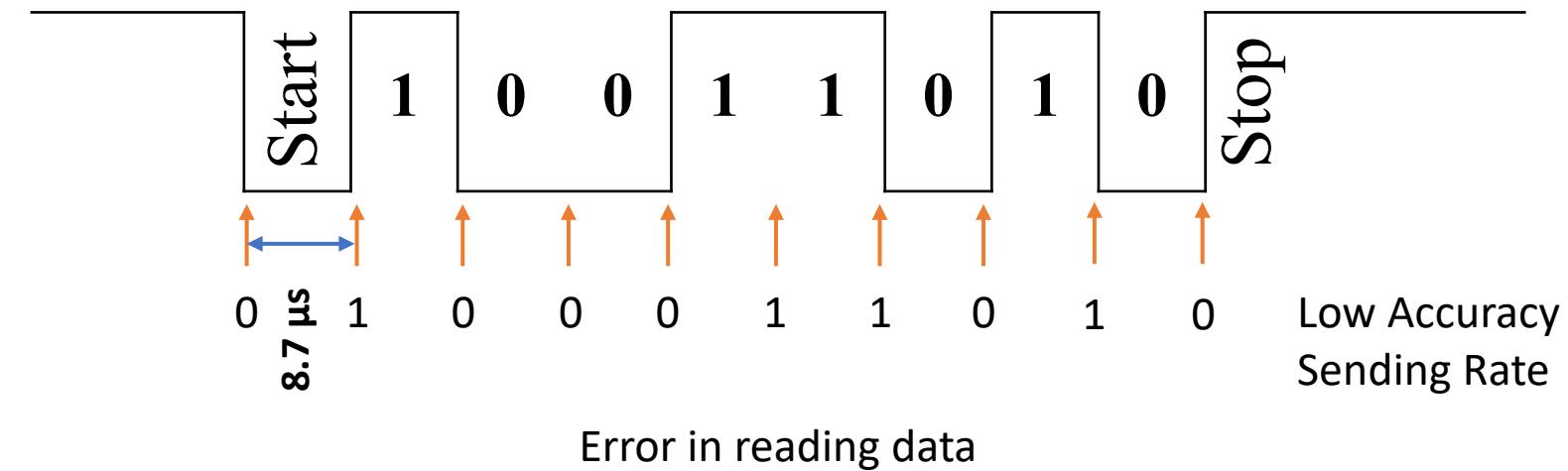


Bauds	Bit duration	Speed
9600 bauds	104.167 µs	1200 bytes/s
19200 bauds	52.083 µs	2400 bytes/s
28800 bauds	34.722 µs	3600 bytes/s
38400 bauds	26.042 µs	4800 bytes/s
57600 bauds	17.361 µs	7200 bytes/s
76800 bauds	13.021 µs	9600 bytes/s
115200 bauds	8.681 µs	14400 bytes/s

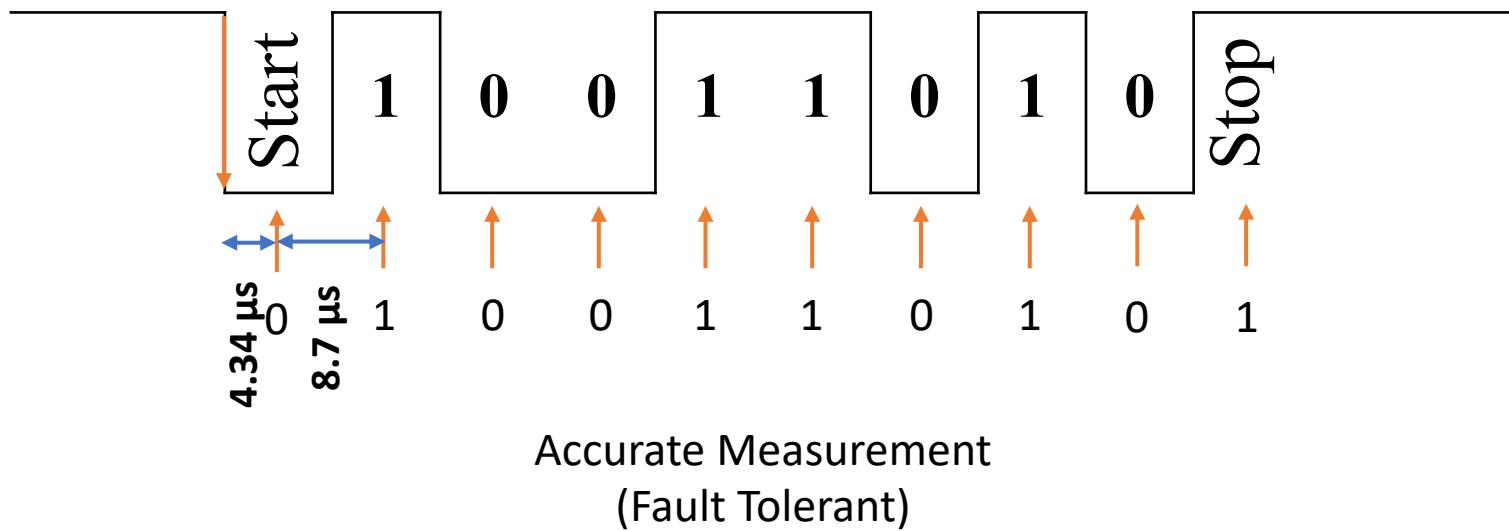
How to Receive Data From Serial Port?



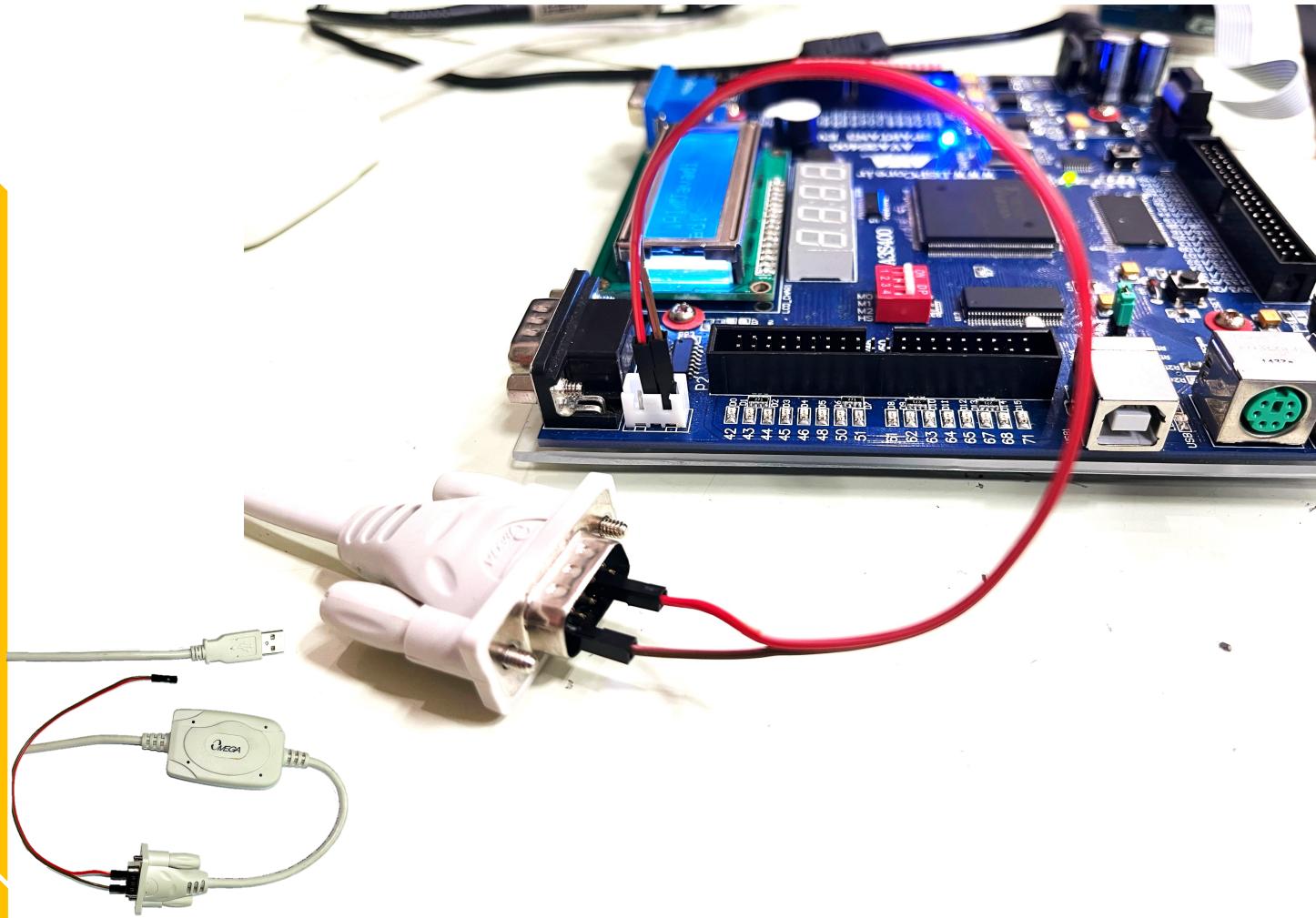
How to Receive Data From Serial Port?



How to Receive Data From Serial Port?



Experiment





Cyber-Physical Systems Laboratory

THANK YOU

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cps.iust.ac.ir

+98 (21) 73225350

Javadi_ali@comp.iust.ac.ir



Room 120, Department of Computer Engineering, Iran University of Science and Technology, University Road, Hengam Street, Resalat Square, Narmak, Tehran, IRAN 16846-13114.