LECTURE 22 - UART Rx

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Date
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* **STEPS TO RECEIVE A CHARACTER : (PC TO ARM)**

① Set P0.0 pin as TxD & P0.1 pin as RxD - (USART0)
```
PINSEL0 = 0x00000005; // Pin Select 0
```
② Set 8 bits - no Parity - 1 stop bit for Txsion & DLAB = 1
```
U0LCR = 0x83; // Line Control Register
```
③ Set BAUD Rate as 9600 bps - 15 MHz VPB clock (PCLK)
```
U0DLL = 97; // Divisor Latch LSB
```
④ Disable Access To Divisor Latches
```
U0LCR = 0x03; // DLAB = 0 Bit = 7
```
⑤ Wait until UART0 ready with the received Data
```
while (!(U0LSR & 0x01)); // Line status Register - RDR
```
⑥ Read the received Data from U0RBR
```
data = U0RBR; // Receive Buffer Register
```

SAME AS PREVIOUS.

* **STEP 5 - while (!(U0LSR & 0x01));**

U0LSR & 0x01	0	0	0	0	0	0	0	RDR
	0				1/0			

* **REGISTER SUMMARY - UART:**

	7	6	5	4	3	2	1	0
U0RBR								
U0THR								
U0DLL								
U0DLM								
U0FCR	Rx Trigger					Tx Fifo Reset	Rx Fifo Rst	Rx Enable
U0LCR	DLAB	Set Break	sticky Parity	Even Par. Sel	Parity Enable	No. of stopBit	Word length Select	
U0LSR	Rx FIFOER	TEMT	THRE	BI	FE	PE	OE	RDR
U0FDR	MulVal				DivAddVal			
U0TER	TXEN							