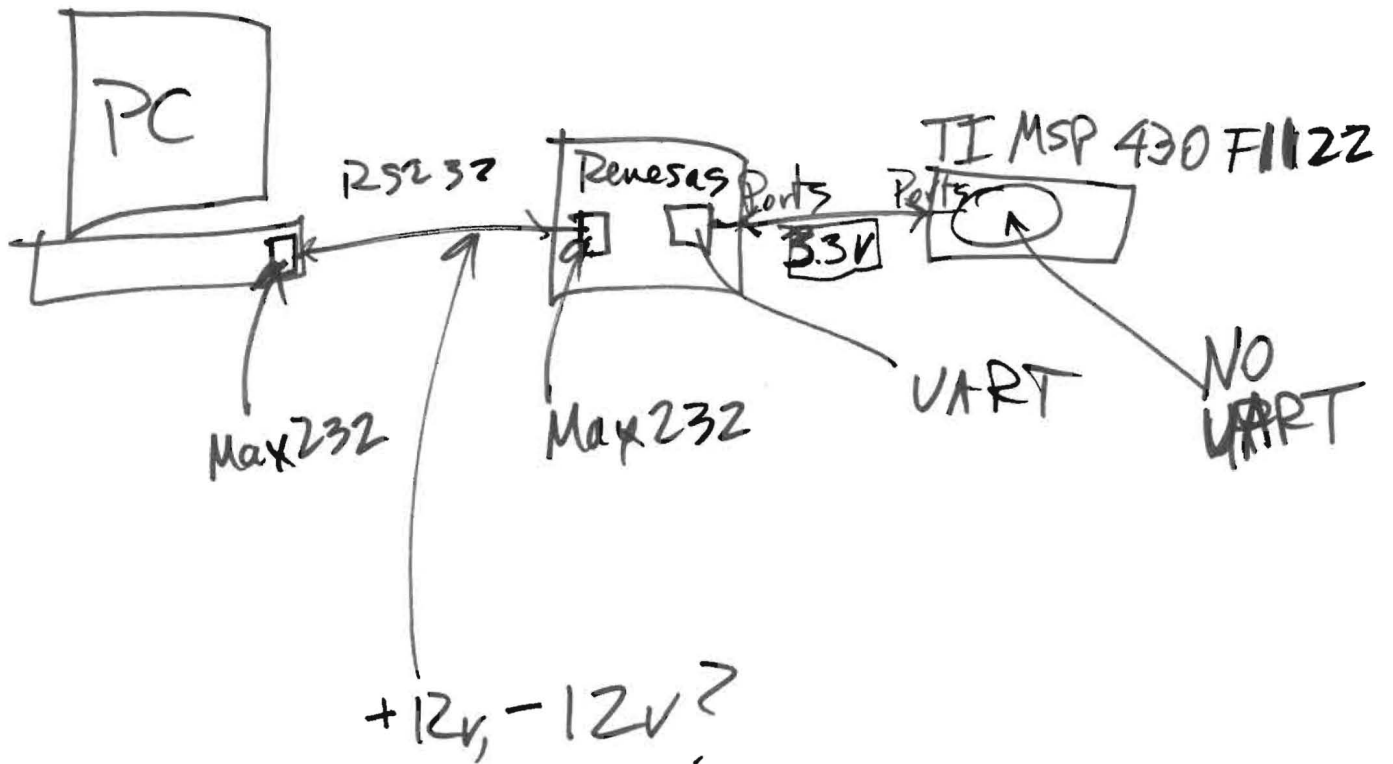


Lab 4 - ECGR 6185 - 3/29/10

(1)



Software Arch

Renesas: UART/Receive (from PC) "Poll" or Int
UART/Transmit (to MSP430)

LCD/Display functions

UART/Port setup

Main → processing

TI:

"UART" Receive

Main → processing

ECGR 6185

Extra Notes

3/29/10

Compute: single vs double precision
how to measure?
timers

(2)

FP operation \rightarrow many, many fixed point operations in an algorithm

Compile once

```
int a = 10;  
int b = 20;
```

start timer
 $C = a * b;$
stop timer

read out data

examine code
to make sure
compiler has not
optimized

LCD
UART

Compile once

```
float a = 10.0;  
float b = 20.0;
```

start timer

$C = a * b;$
stop timer
read out data

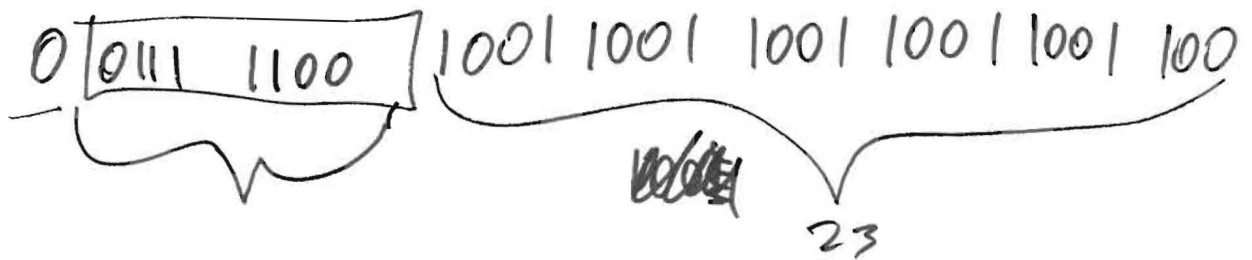
~~the~~ Debugger.

$$\begin{aligned}
 -8 &= \dots 1100110011 \\
 -4 &= \dots 0110011011 \\
 -2 &= \dots 001100110011 \\
 -1 &= \dots 0001100110011
 \end{aligned}$$

ECGR 6185 Quiz N+3
Solution 3/31/10

$$-2 = 0 \dots 00110011$$

$$\begin{aligned}
 127 - 3 \\
 = 124
 \end{aligned}$$



Algorithm

check value if not between 99 and 0
return error

$$\text{char}(A) = (\text{value} / 10) + 48; \quad // + x30$$

$$\text{char}(B) = (\text{value} \% 10) + 48; \quad // + x30$$

make the two char string AconcatB