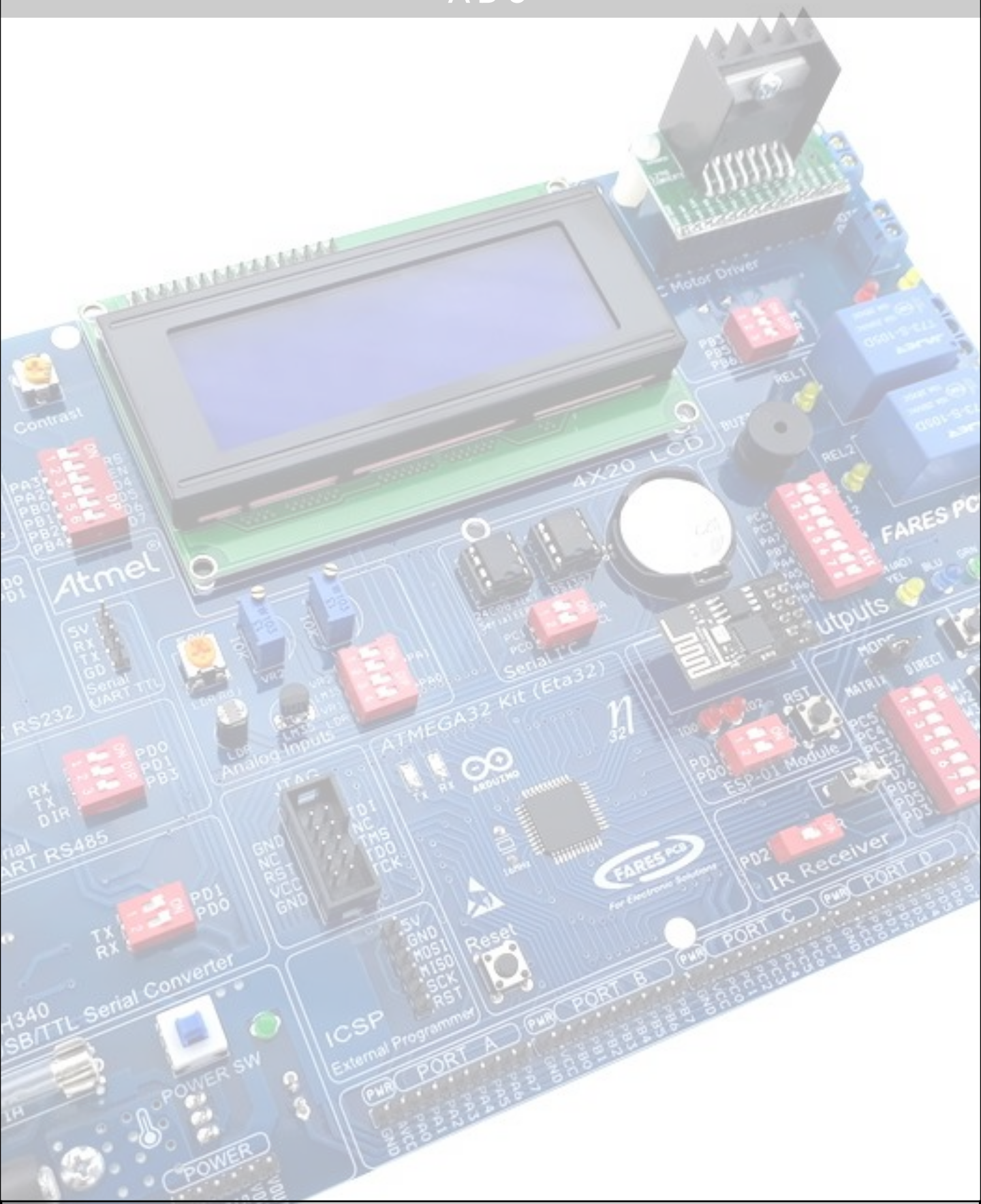
ADC



REMEMBER	
1	Your code should be Layered architecture code [APP , HAL , MCAL]
2	Try to optimize your code
3	We will discuss all codes next session

STAKEHOLDER_REQUIREMENTS

*	Achieve the following points :
1	Measure the temperature value using ADC
2	Display the result in LCD
3	The temperature reading range is [0 to 500]
4	Make a leds and buzzer are indicators for temperature reading
5	If the reading below 100 -> leds off
6	If the reading equal or above 100 -> blue led on
7	If the reading equal or above 200 -> blue led on, green led on
8	If the reading equal or above 300 -> blue led on, green led on, red led on
9	If the reading equal or above 400 -> blue led, green led and red led toggle every 200 milli second
10	The buzzer generate two short beeps every 50 degree Celsius (50, 100, 150, 200, …., 500)
11	Using 3 push buttons Achieve the following points :
12	Button 1 -> control leds
13	Button 2 -> control buzzer
14	Button 3 -> control alarm mode
15	Each push button can toggle (enable & disable)
16	When alarm mode is activated and temperature is equal or above 450 (buzzer on for 80 milli second, off for 500 milli second, and so on …. , till alarm mode is disabled by push button 3)
17	Display the alarm mode state in the LCD (at second row)
18	The priority of (push button 1 and push button 2) is higher than alarm mode and higher than temperature reading.