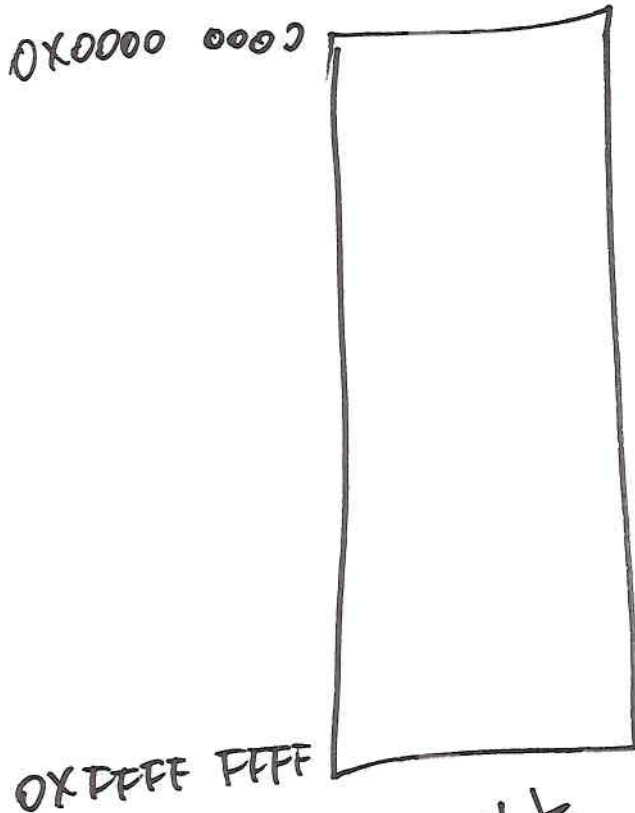


Memory Maps



8bits

0x00000

RAM

x9FFFF
xA0000

VIDEO MEM

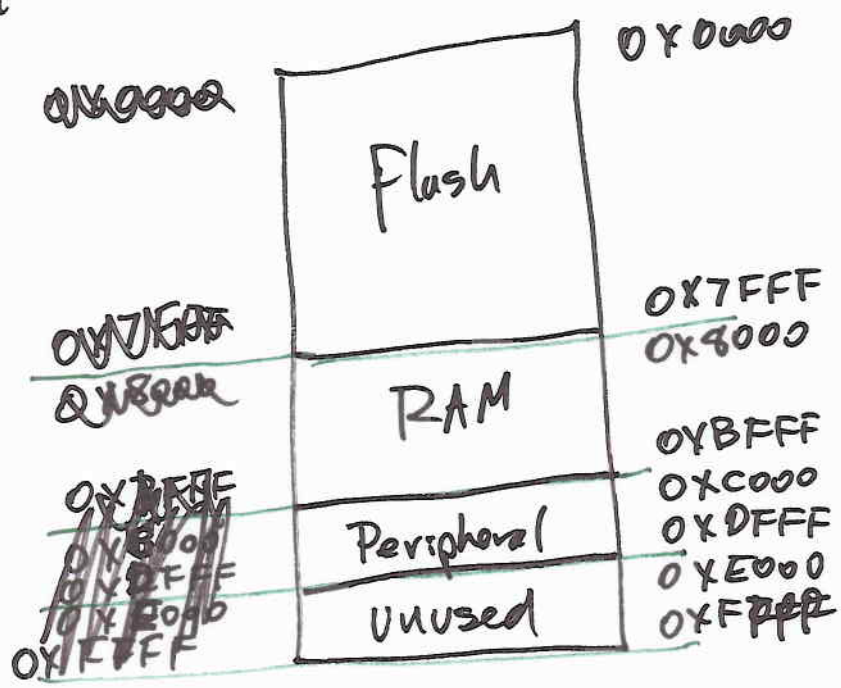
ROM

0xFFFFF

Intel
80286

$$690 \times 1024 = 655360_{10} \rightarrow 640K_{10}$$
$$\rightarrow \times 10000 \rightarrow 16$$

I have a processor that has 16 bit addressing. 32K flash (starts at 0x0000), followed by 16K RAM followed by 8K of peripheral registers. What does the memory map of this system look like?



// Function — AD Conversion, return

// # of bars to light

// input = none (just read ADC)

// output = int, 0-10, # of LEDs to Light

// General Conversion 0-1023, 0 to 4% = 0 LEDs,

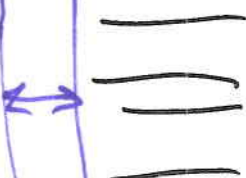
// 5 to 14% = 1 LED, ..., 95 to 100% = 10 LEDs

int atod_leds (void) {

int value; // value read from analog to dig conversion
 int leds; // number of LEDs to light
 ...

value = _____ & 0X03FF;

if (value <= 4) { // if value is between 0 & 4%



} // endif

if () { // if value is between 5 & 14%



return (leds);

} // end function atod_leds

Embedded Systems

2019-09-15

④

#define	0percent	0
#define	4percent	1024 204
#define	5percent	205
	⋮	
	⋮	
#define	100percent	1023