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4-2 Journal: Best Coding Practices

We have learned about a few different topics this class so far, bit manipulation, memory utilization, cross compiling, state machines, variable scope, and stack management. They are all important to embedded systems and should be used to help us. However, there are some things to keep in mind when using these tools.   
 Bit manipulation is a useful to that we can use to do things such as shifting bits. When we shift bits, we need to remember to remember to shift from the rightmost bit. If we do not do that then we can get drastically different results from the ones we are looking for.

Memory utilization needs to be at the forefront when building an embedded system as they typically do not have the same space that a computer system might. So, when we are using data types it is important to use the type that has the best constraints to that variable. For instance, if you are creating a variable of age, you should use unsigned char. This will not surpass the 120’s. This has a rang of 0-255. However, if we used unsigned long… the rang is 0 to about 4 billion. So instead of 1 byte we are now using 4 bytes of memory.