Elevator Tips

- Break your program up into meaningful sections, each one handling a particular job.
- Use symbols in your program to represent all variables.
- You can only drive an output in one place in a program.
- Do not put loops in your function blocks, they may never exit.

- **SYSTEM_ENABLE** must be **TRUE** (on) before the real elevator will respond to any commands.
- **FAKE_ELE_ENABLE** must be **FALSE** (off) to use the real elevator, or the fake elevator will conflict with the real one.

- **WINCH_MOTOR** is the symbol used to set the speed of the vertical motion of the Elevator. This is the memory location of the DA converter. Use MOV to write to this location. eg MOV #94C WINCH_MOTOR
- The range of the WINCH_MOTOR is 0 to 6000 where 0 is max speed Up and #1770 (6000) max speed down.

Speed	Hexadecimal	Decimal
Down, Fast	#1770	6000
Down	#1200	4680
Down, Slow	#0DAC	3500
Up, Slow	#09C4	2500
Up	#0600	1536
Up, Fast	#0000	0000

- **_HOLD_VALUE** is the value between the two (~3000) which is where the elevator speed is zero.
- Hold values are different for each elevator.

Elevator	Hexadecimal	Decimal
1	#0B6B	2923
2	#0B20	2848
3	#0B5A	2906
4	#0C41	3137

- The PRV instruction output takes up two words, ie store your results in work areas incrementing in at least groups of 2 and not next to each other (e.g. W5, W7, W9, W11, W13).
- The INI instruction can be used to set the initial PRV value (encoder value).
- Because encoder values use two words, use the L variants of instructions. (L means Long – so it works on two words)
- MOVL must be used when dealing with encoder information
- +L, -L, /L, *L must be used when dealing with encoder math

- The elevator MUST be on a floor before the doors will open.
- DOOR_OPEN or DOOR_SHUT can be pulsed (Use a timed pulse NOT differentiation) to activate the door movement sequence. The MPU will take over the operation and complete the sequence.
- LIMIT_SHUT or LIMIT_OPEN is used to signify the completion of the door sequence.
- There is a limit switch at each floor used to signify the carriage has reached the floor.