Title:	How to read End switches of Swap Station	ID:
		0138

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Q:

While the turntable is rotating, our software waits for about 2.5 seconds then reads and logs the values of the turntable position flag at 1912 and one or other of the sensors at 100 or 101. What we find is that 1912 has always changed to its new (destination) value by the time we start logging, whereas the sensor at 100 or 101 is usually a zero when we start monitoring and switches to a 1 after a few hundred milliseconds.

Why are these two indicators different?
When exactly does the turntable position flag at 1912 switch from one value to the other?
Which of these two indicators should we be using to determine when the rotation is complete?

A:

When you change 1912 (ST or RS) you start the SwapStation motion. If you read 1912 it will only tell to what this flag is set. The actual position of the SwapStation you find by reading 100 or 101. Or even better by reading the status (1st byte) of T16 or T17 (e.g. RD T16 -> 1,00005,00005). T16 goes with 101, T17 with 100.

Therefore, when you change 1912 the sensor the SwapStation is on at the time of the command will be ON for some milliseconds, then both sensors will be OFF for the travel time and filially, when the SwapStation has reached its final destination, the second switch will turn on. T16 / 17 delay 101 / 100 for 0.5s in order to guarantee stable readings.