Extreme
Idle XEM Battery Usage
Revision 1

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Applicability: XEM and XBOLT
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InTouch:

PROCESS IMPROVEMENTS

When a battery cell is connected to a battery manager current starts to be drawn to power the battery manager. Periodic checks on the health and status of the cell then start to be recorded. Once any additional probes are connected to a battery the frequency of these checks increase greatly resulting in additional current draw and increased depletion rate of the cell.

Looking at several examples, a general average for battery usage has been obtained for three different scenarios involving alkaline and 14V lithium cells connected to V2 battery managers. Each number is the calculated amp hours used (AHU) for each cell recorded by the battery manager.

Disconnected From Any Other Probes:

	24 hours	1 Week	1 Month
Bat	0.11 AHU	0.77 AHU	3.3 AHU

Assembled In a string with XM4 Tool Power Enabled:

	1 Hour	6 Hours	24 Hours	
Bat A	0.007	0.042	0.168	
Bat B	0.007	0.041	0.164	
Bat C	0.007	0.041	0.164	
	0.021 AHU	0.124 AHU	0.744 AHU	**Total**

Assembled In a string without XM4 Power:

	1 Hour	6 Hours	24 hours	
Bat A	0.328	1.968	7.872	
Bat B	0.005	0.028	0.112	
Bat C	0.004	0.027	0.108	
	0.337 AHU	2.023 AHU	12.138 AHU	**Total**

MOVING FORWARD

Steps should be taken to avoid unwanted depletion of battery cells:
- Avoid storing assembled batteries for long periods of time
- If a string is assembled use XM4 Tool Power to mitigate battery usage
- Store batteries at or near room temperature (68°F - 77°F)