Simple Backup System for CMI09RAM

Using the following data:

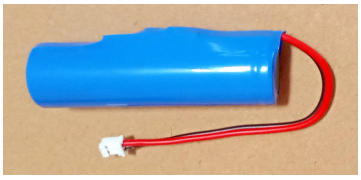
The 74HCxxx VCC from 2V - 7V
The GAL VCC from 0.5 - 7V
The RAM VCC from 1.5 - 5.5V data retention
Li cell from 3.0V - 4.2V (fully charged)

Because there are too many chips on the VCC trace, it is too complex to modify the board to use standby for just the ram chips.
So we just put the whole board in standby !

1: Connect a small 5V/200mA adaptor with:
Plus to pin 2 (VCC ram)
Minus to pin 4 (ground)

2: We use a Li-cell from 3.0V - 4.2V, we need to charge the cell outside the system.
And we have to test ourselves that the cell does not drop below the 3V.
Backup RAM voltage will be from ~ 2.4V - 3.5V.

Place a Li cell:
Li cell plus to pin 2 (VCC ram)
Li cell minus to pin 4 (ground)



18650 3.7V 3600mA with protection

Standby on Li cell 3600/30 ~ 120 hour.
The ram card will use less power when the voltage drops.
Expected standby 160 hour, ~6 days.

3: A backup system to charge the cell when the system is on and an external 5V charging option is in the development and testing phase.
It must also generates a power loss signal and have a reset function.
After restarting FLEX and loading VIRTUAL, the driver will test for any power loss.