Getting to Know Your Lithium Ion Battery

Terminology

1. ***Capacity***-The amount of energy stored in the battery
2. ***Cycles***-The number of times a battery can be recharged
3. ***Duration***-How long the battery lasts
4. ***Temperature***-Operating Range
5. ***Purity***-Density of material
6. ***Rate*** - the speed or time it takes to charge a device

Why do Lithium Ion Batteries Fail

The key to good Battery Health

Maintaining Capacity. Lithium Ion Batteries lose capacity naturally over time

We as ***Users*** accelerate the loss of Capacity by failing to understand how Lithium Ion Batteries work. Causes of premature failure

Issue: Failure to understand the purpose of the device

Issue: Failue of keeping the battery within its proper temperature range

Issue: Failure to understand recharge cycles and rates

Conclusion

We are the problem !

Charging and discharging at the same time

Charging too often, there is a limit of approx. 512 charging cycles.

Wireless and Fast Charging (heat)

Maintaining battery capacity means longer life for that device. The goal: keeping the loss of capacity to under 10% per year.