






Comparison between different Li-ion Cells Type

	Cylindrical Cell 	Prismatic Cell 	Prismatic Pouch Cell 
Advantage	<ol style="list-style-type: none"> 1. Ease of manufacture 2. Good mechanical stability 3. Withstand high internal pressures without deforming (Safe) 4. Lower cost (watt per hour) 5. Long calendar life and cycling ability 6. Higher energy density 	<ol style="list-style-type: none"> 1. Thin Profile (Effective Use of Space) 2. Light Weight 3. Allows flexible design 4. Encased in metal or steel for stability 	<ol style="list-style-type: none"> 1. Similar to prismatic cell except no need for metallic casing 2. Most efficient use of space 3. Light Weight
Disadvantage	<ol style="list-style-type: none"> 1. Notable space between cells (less space efficiency) 2. Heavy 3. Low packaging density due to space cavities 	<ol style="list-style-type: none"> 1. More expensive to manufacture 2. Less efficient in thermal management 3. Shorter cycle life 4. Thermal Management is difficult 5. Deformation in high-pressure situations 6. Higher Cost (watt per hour) 	<ol style="list-style-type: none"> 1. Provision for Swelling must be made 2. Similar to prismatic cell
Applications	power tools, medical instruments, laptops and E-bike	mobile phones, tablets and low-profile laptops Electric powertrains in hybrid and electric vehicles, electric buses, trucks, solar/wind storage UPS	Small cells are popular for portable applications such as drones and hobby gadgets. The larger cells serve in energy storage systems (ESS)