

# Rebuilding the Battery

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# Reimagining the Battery



Technology around batteries is evolving at a rapid pace:

- Drones and robotics
- Datacenters and AI
- Electric vehicles
- Consumer electronics

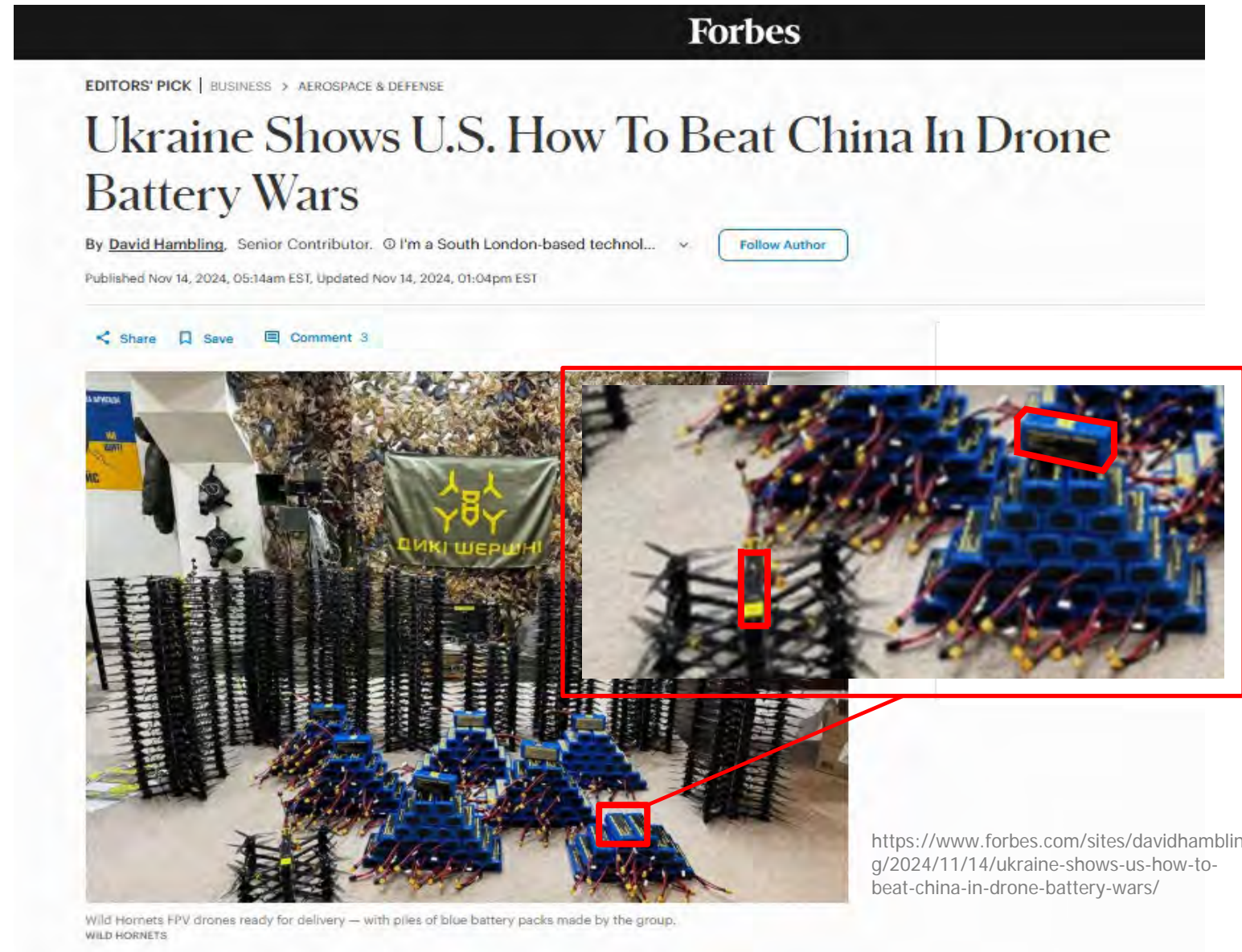
Battery design isn't keeping up:

- Cylindrical/prismatic cells
- Pouch cells

**What if a battery was designed differently?**

**What would it look like?**

**How could it be used?**





# Designing a 'Universal Battery'



A battery that can change shape and size without sacrificing energy density, safety, or cost

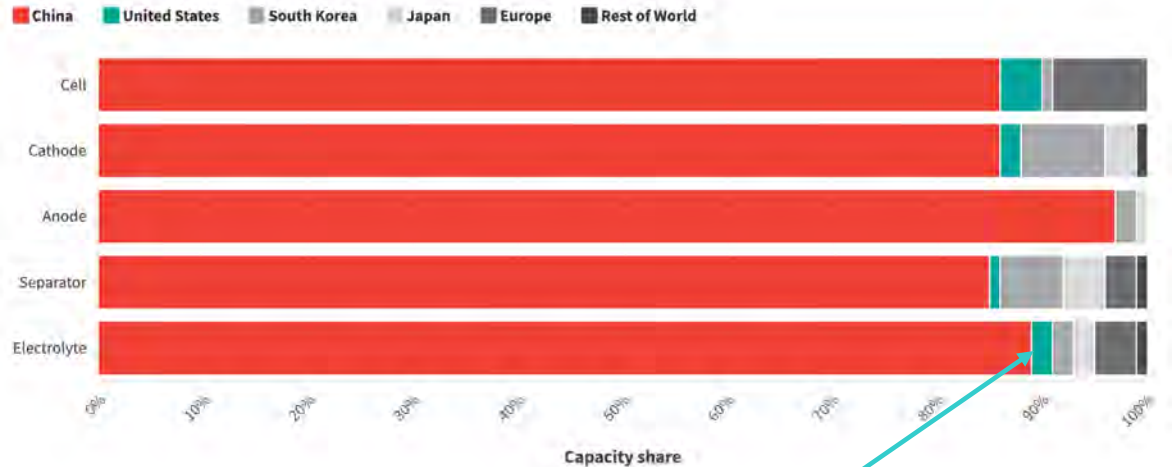
Why this is hard:

- **No** rigid metals
- Stable voltage and capacity during shape change
- Stretchable/deformable materials
- Lasting malleable interfaces

How do we make entirely new batteries that allow us to leapfrog the current state of practice?

**Figure 2(a). China Dominates the Battery Supply Chain**

Global Production of Battery Cell Components, 2024



Source: BloombergNEF, Long-term EV Outlook, 2024.

Important: Domestic supply chain for economic and national security purposes



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