Keeping Satellites Powered: A Friendly AI Guardian

What is the issue?
Imagine your phone suddenly dying in the middle of an important call. Now picture that phone orbiting Earth at 17,000 mph doing a billion-dollar job. When a satellite starts to lose power, the whole mission is at risk and there is no one up there with a spare battery.

Why should we care?
• Power problems are among the top reasons space missions fail.

• Catching trouble early let us ground teams patch things up or switch to backups before disaster strikes.

• Every extra day a satellite stays healthy saves money and keeps vital data flowing.

Our idea
Build a small, always-awake AI "power lookout." It listens to the satellite's voltage, current, battery levels, and temperature 24/7. The AI learns what "normal" looks like and yells out the moment something drifts off course and looks abnormal.

Goals
• Spot power hiccups minutes or hours sooner than people can.

• Cut false alarms so engineers trust all the alerts.

• Lay groundwork for fully self-healing spacecraft in the future.