**TASK 1**

**PRODUCT NAME – APPLE AIR POWER (2017-2019)**

**PRODUCT DESCRIPTION:**

Apple AirPower was a wireless charging mat announced in 2017 alongside the iPhone X. It was designed to charge multiple Apple devices simultaneously, including the iPhone, Apple Watch, and AirPods. However, due to technical and engineering challenges, Apple officially cancelled the project in 2019.

**PRODUCT FEATURES:**

* Multi-Device Charging: Could charge iPhone, Apple Watch, and AirPods simultaneously.
* Freedom of Placement: Unlike traditional wireless chargers, AirPower promised to charge devices placed anywhere on the mat without requiring perfect alignment.
* Intelligent Power Management: Designed to adjust power levels dynamically based on the devices being charged.
* Real-Time On-Screen Battery Status: iPhone was supposed to display charging status for all devices on the screen.
* Qi Wireless Charging Standard: Built on the Qi standard but with Apple’s enhancements for better performance.

**PRODUCT ISSUES:**

* Apple wanted to use overlapping charging coils to allow flexible device placement. However, this caused excessive heat buildup, affecting performance and safety.
* Unlike regular wireless chargers, AirPower needed multiple charging coils working together, which led to interference and efficiency loss.
* Apple’s quality control is extremely high. Reports suggest AirPower didn’t meet internal safety and performance standards, leading to its cancellation.
* Due to high power output and heat generation, AirPower may have struggled with wireless charging certifications in some regions.
* By 2019, third-party wireless chargers (like Belkin and Mophie) offered similar features, reducing AirPower’s necessity.

**HOW TO IMPROVE (SUGGESTION):**

* Better Coil Design: Use fewer but more efficient coils to avoid overheating.
* Magnetic Alignment: Similar to MagSafe, magnetic positioning could ensure proper device placement.
* Segmented Power Distribution: Instead of overlapping coils, divide the mat into separate charging zones.
* Active Cooling System: A small fan or heat-dissipating materials could help manage heat.
* Apple Silicon Integration: Use custom chips to optimize power management and prevent interference.