

IDEA2 2022 | Need Statement Template

People with needs for continuous health monitoring like heartbeat for patients with cardiac dysrhythmia,

experience discomfort of wearing measurement devices that are bulky enough to impede human activities or causes for potential laser burn in the case of smartwatches.

Device engineers try to avoid that outcome by the development of wireless electronic skin (e-skin) that is thin enough that it can be attached to the human body with imperception and no need for physical connection to the measurement units.

However, that approach fails to achieve practicality since current approaches so far had to compromise e-skin performance with imperception and functionalities.

One root or key cause for that failure is inevitable wireless communication chips and batteries for power supply to achieve desired e-skin functionalities.

Accordingly, there is a need to/for wire-less, battery-less, and chip-less e-skin that has no other components other than just ultra-thin layers, what we call "real e-skin", with complete imperception that does not impede human activities during data collection.

Which if solved would lead to a new everyday health monitoring solution for the general population with the most comfortable and imperceptible experiences.