PROBLEM STATEMENT BY GE HEALTHCARE

**BACKGROUND**

Field service is one of the most critical aspects of the Healthcare business, where the equipment uptimes are a key market differentiators. As in any business, key challenges to have sufficient trained Field engineers who can go and service the equipment on field at the customer place. Troubleshooting on premise takes precious man-hours = $ that costs the bottom line of each business and the downtime of the equipment that in turn as a big customer perception about GE equipment. One of key reasons behind delay of service is because of relatively new Field engineers who are still learning the system.

**SCOPE**

The scope of this project is to build an AR system that can help the service engineer by providing step-by-step repair instructions hovering over a machine part, visually guiding a worker through the job. Build software platform/application for AR devices that gives field techs hands-free access to real-time data and processes that will optimize their performance and reduce operational costs. Field technicians can view task instructions, checklists, and troubleshooting procedures, as well as get real-time video assistance from remote expert

 A partnership between humans and smart machines, can augment workers’ abilities, resulting in dramatically improved performance, greater safety, and higher worker satisfaction. One of the best examples of this type of partnership is the industrial use of augmented reality (AR) smart glasses in manufacturing, warehousing, and field service environments that overlay computer-generated video, graphic, or text information onto physical objects

Wearable AR devices(like for e.g Vuzix M300 ) are now being used in manufacturing and industrial settings and can boost workers’ productivity on an array of tasks the first time they’re used, even without prior training. These technologies increase productivity by making workers more skilled and efficient, and thus have the potential to yield both more economic growth and better jobs.

The video below, for example, shows a side-by-side time-lapse comparison of a GE technician wiring a wind turbine’s control box using the company’s current process, and then doing the same task while guided by line-of-sight instructions overlaid on the job by an AR headset. The device improved the worker’s performance by 34% on first use.

<https://youtu.be/n5LhQqggGTE> (Resource from upskills.io)

**LIMITATIONS**

The outcome of the POC, application, research and exercises that will lead to the final documentation, shall be strictly the property of GE Healthcare and shall not be used in any manner for any commercial purpose without express permission of GE Healthcare.