

Ideation Phase

Problem Statement

Date	10 September 2022
Team ID	PNT2022TMID35486
Project Name	Project - Gesture-based Tool for Sterile Browsing of Radiology Images
Maximum Marks	2 Marks

Gesture-based Tool for Sterile Browsing of Radiology Images

Tamizh, who is a doctor, faces difficulties in browsing the radiology images of patients in the operation theatre. The problems the doctor faces are:

- i. Risk of getting infected by having frequent contacts with browsing devices.
- ii. Need of constantly checking if the operation room environment is hygienic and sterile.
- iii. Frequent movement to the computer to browse radiology images.
- iv. Losing focus by the constant movement.
- v. The whole process of browsing patient's radiology becomes time consuming because of the above issues.

In the above problem statement, the user is a doctor who needs a contactless image browsing tool because the risk of getting infected is high. So, a Gesture-based Tool for Sterile Browsing of Radiology Images is required.

Who does the problem affect?	Surgeons, Doctors and Patients
What are the boundaries of the problem?	Hospitals and Health Sector
What is the issue?	The present-day use of doctor-computer interaction devices in the operation room to browse radiology images accompanies with the risk of getting infected and frequent movement to the computer which makes it uneasy. Therefore, it requires new modalities that support medical imaging manipulation while allowing doctors' hands to remain

	sterile, supporting their focus of attention, and providing fast response times.
When does this issue occur?	When doctors handle mouse or pointer devices to browse radiology images of patients in the operation rooms.
Where is the issue occurring?	Hospitals, Diagnosis Centers and Scan Centers
Why is it important to fix the problem?	By fixing the issue, doctors can ensure sterile environment in the operation theatre and experience hands-free browsing of radiology images of patients which is much easier and more convenient than the existing techniques.