Project Title: A Gesture-based Tool for Sterile Browsing of Radiology Images

Project Design Phase-I - **Solution Fit Template**   **Team ID:** PNT2022TMID35818

1. CUSTOMER SEGMENT(S) `CS`

Doctor, Surgeons & medical field professionals age between 25 – 65.

6. CUSTOMER CONSTRAINTS `CC`

Risk of injuries to patients from AI system errors, the risk to patient privacy of data acquisition, Data availability:

Training AI systems requires large amounts of data from sources such as electronic health records, pharmacy records, insurance claims records, or consumer-generated information like fitness trackers or purchasing history, Bias and inequality.

5. AVAILABLE SOLUTIONS `AS`

A long-lasting power battery system.
Using of secondary camera in case of any emergency
Confirmation of correct gesture.

2. JOBS-TO-BE-DONE / PROBLEMS `J&P`

Which jobs-to-be-done (or problems) do you address for your customers?
There could be more than one; explore different sides.

Operation room should be free from contamination. So Human Interaction Devices (HCI) like mouse, keyboard to be avoided. So Hand gestures can be used for sterile browsing of radiology images

9. PROBLEM ROOT CAUSE `RC`

The medical data from one organization can be incompatible with other platforms due to interoperability issues.

Lack of clear business objectives:

 Focusing on a measurable business objective first, rather than first focusing on developing a tool or system to solve a problem, is challenging to the traditional organization and customer face sterilization issues.

7. BEHAVIOUR `BE`

Find the right service provider.

Need to check the accuracy and verification of results.

Sending of feedback

Compare with other service provider to enhance the efficiency.

3. TRIGGERS TR

How to overcome to the contamination issue in Operation theatre due to HCI?

ie. By using the help of modern technology of hand recognition or hearing from medical professional using hand recognition for surgeon

4. EMOTIONS: BEFORE / AFTER EM

Before:
- Insecure
- Unsafe
- Afraid of Contamination

After:
- Safe
- Satisfied
- Fast
- Accurate

10. YOUR SOLUTION SL

Use of fast processing algorithm.

Eliminate the contamination problem in operation theatre.

Interactive and user-friendly.

Confirmation of correct gesture.

8. CHANNELS of BEHAVIOUR CH

8.1 ONLINE

- Report difficulties faced via e-forms, mail, etc.
- Fill feedback and feed data to the system to improve accuracy.

8.2 OFFLINE

- Give more test and train data sets.
- Improve camera quality.
- Check the working of operation machine beforehand