Project Title: A Gesture-based Tool for Sterile Browsing of Radiology Image **Project Design Phase-I - Solution Fit Template** **Team ID:** PNT2022TMID16374

Define CS, fit into CC

1. CUSTOMER SEGMENT(S) — CS

Who is your customer?
i.e. working parents of 0-5 y.o. kids

Surgeons, Doctors and Patients

6. CUSTOMER CONSTRAINTS — CC

What constraints prevent your customers from taking action or limit their choices of solutions? i.e. spending power, budget, no cash, network connection, available devices.

Multiple hands detected within same frames
Connectivity issues between devices
Inconsistency in focus and concentration of surgeon
Availability of devices

5. AVAILABLE SOLUTIONS — AS

Which solutions are available to the customers when they face the problem
or need to get the job done? What have they tried in the past? What pros & cons do these solutions have? i.e. pen and paper is an alternative to digital notetaking

Wearable devices can be used to detect hand gestures
Voice commands can be used to manipulate radiology images
Manually manipulating radiology images

Explore AS, differentiate

Focus on J&P, tap into BE, understand RC

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.

Monitoring patients scan images
Restricting the operations performed on images
Maintaining sterility

9. PROBLEM ROOT CAUSE — RC

What is the real reason that this problem exists?
What is the back story behind the need to do this job?
i.e. customers have to do it because of the change in regulations.

Background noise
Difficulty in maintaining sterility
Inability to handle various images by manual key press

7. BEHAVIOUR — BE

What does your customer do to address the problem and get the job done?
i.e. directly related: find the right solar panel installer, calculate usage and benefits; indirectly associated: customers spend free time on volunteering work (i.e. Greenpeace)

When the customer is not aware or unclear about the gestures provided as an input in an effective manner in order to get the desired accuracy

Focus on J&P, tap into BE, understand RC

3. TRIGGERS — TR

What triggers customers to act? i.e. seeing their neighbour installingsolar panels, reading about a more efficient solution in the news.

The need to switch between patient and device is not required

Ease of equipment interaction during surgery

10. YOUR SOLUTION — SL

If you are working on an existing business, write down your current solution first,fill in the canvas, and check how much it fits reality.
If you are working on a new business proposition, then keep it blank until you fill inthe canvas and come up with a solution that fits within customer limitations, solves a problem and matches customer behaviour.

To make use of hand gestures to manipulate radiology

8. CHANNELS of BEHAVIOUR — CH

ONLINE

What kind of actions do customers take online? Extract online channels from #7

Perform various image manipulation operations on the scan during surgery and training periods

OFFLINE

Identify strong TR & EM

4. EMOTIONS: BEFORE / AFTER

EM

How do customers feel when they face a problem or a job and afterwards?
i.e. lost, insecure > confident, in control - use it in your communication strategy & design.

Before: To move away from patients and towards the devices for manipulating the scans

After: Easy to focus and concentrate on the surgery without the need to switch between patients and device for manipulating the scans

images
To maintain sterility during surgery
To make simple UI that manipulates the scan using hand gestures

What kind of actions do customers take offline? Extract offline channels from #7and use them for customer development.

Perform image manipulation techniques on already available scans in database to train the AI model

Identify strong TR & EM