

Project Design Phase-I
Problem – Solution Fit Template

Date	17.10.2022
Team ID	PNT2022TMID09880
Project Name	A gesture-based tool for sterile browsing of radiology images
Maximum Marks	2 Marks

Problem – Solution Fit Template:

A hand gesture system for MRI manipulation in an EMR image database called “Gestix” was tested during a brain biopsy surgery.

This system is a real-time hand-tracking recognition technique based on color and motion fusion.

Purpose:

- This paper presents “Gestix,” a vision-based hand gesture capture and recognition system.
- That interprets in real-time the user's gestures for navigation and manipulation of images in an electronic medical record (EMR) database.
- A sterile human—machine interface is of supreme importance because it is the means by which the surgeon controls medical information avoiding contamination of the patient, the OR and the surgeon.

Template:

1. CUSTOMER SEGMENT(S) <small>CS</small> <ul style="list-style-type: none"> Industrialists Engineers Safety Control Personals 	6. CUSTOMER CONSTRAINTS <small>CC</small> <ul style="list-style-type: none"> Network Connection Complexity in Installation 	5. AVAILABLE SOLUTIONS <small>AS</small> <ul style="list-style-type: none"> Upgrading to a premium network plan. Availing network connection from a reliable Service provider.
2. JOBS-TO-BE-DONE / PROBLEMS <small>JBR</small> <ul style="list-style-type: none"> Capability of the device to withstand in harsh environment is questionable. Due to network issue data couldn't be uploaded to the cloud at all times. 	9. PROBLEM ROOT CAUSE <small>RC</small> <ul style="list-style-type: none"> Quality of the material using which the device is made up of plays a vital role in the capability of the device to work in harsh environment. Location of the device installation and the network plan used by the user are the cause of Network issue. 	7. BEHAVIOUR <small>BE</small> <ul style="list-style-type: none"> Harsh environment is prevailing only on certain industry; thus, the frequency of the said problem is low. In such a case the customer complains multiple times to get the attention. Network issue is very common as most of the industries are located at the country side. Here the contact both the developers and the service providers
3. TRIGGERS <small>TR</small> <ul style="list-style-type: none"> Usage of the device is portrayed in the news. In real life situation, the device has helped in saving number of individuals. 4. EMOTIONS: BEFORE/AFTER <small>EM</small> <ul style="list-style-type: none"> Before the action is taken, the user feels deceived and cheated. After the problem is resolved, user feels the sincerity of the developers. 	10. YOUR SOLUTION <small>S</small> <ul style="list-style-type: none"> Network strength must be boosted in the device Device can be manufactured in multiple standards based on the environment. 	8. CHANNELS OF BEHAVIOUR <small>CH</small> 8.1 ONLINE <ul style="list-style-type: none"> E-Mail to developers Online Community 8.2 OFFLINE <ul style="list-style-type: none"> Complaint Letters

Expose AS, differentiate

Reinforce JBR, RC, BE, CH, EM, AS, S