Project Design Phase-I
Proposed Solution

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

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Today in real world, While a Surgeon is performing a surgery, He needs scan reports or radiology images like x-ray, CT or MRI images for his visualization. The Surgeon constantly changes the images. He uses his hands to browse through the images by which he is already performing a surgery. There is a risk of infection because the doctor's hands are touching other objects and unlike other equipments it's hard to sterilize electronic objects.
2.	Idea / Solution description	The solution is to make the screen to display the images according to the surgeon's wish without making him physical contact with the machine. This is done by detecting the hand gestures of the surgeon, the system will process the image and the monitor will behave accordingly.
3.	Novelty / Uniqueness	If the Surgeon browse the images with his hands, he has to drop the surgical equipments inorder to interact with the machine. If the Surgeon employs another person to do that job, the Surgeon will need to communicate with that person which lead to loss of concentration. The uniqueness of this machine is, The Surgeon needn't have to worry about all that so he can fully concentrate on his job
4.	Social Impact / Customer Satisfaction	The customer will get solely satisfied with this product because it saves time during surgery and it also saves the patient from getting pathogenic infections. Both are important factors when a person is battling for life.
5.	Business Model (Revenue Model)	This model doesn't even need a full computer. We can implement the program on a raspberry pi board and connect a display and camera to it, So it requires low production cost. We can get all these components combined under 10,000 rupees.
6.	Scalability of the Solution	The solution should be scalable. It will run on the smaller systems like raspberry pi. If we implement it on larger pc, it will take full advantage of the resources and run fine as well.