

**Project Design Phase-II**  
**Solution Requirements (Functional & Non-functional)**

Date	03 October 2022
Team ID	PNT2022TMID02539
Project Name	A Gesture-Based Tool For Sterile Browsing Of Radiology Images
Maximum Marks	4 Marks

**Functional Requirements:**

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	Hand detection	Filters out hand from video capturing device.
FR-2	Skin detection	Filter the objects of non skin-coloured.
FR-3	Filtered object detection	Read and recognize clusters skin coloured objects.
FR-4	Hand calibration	Perform adjustment according to user's dominant hand.
FR-5	Browsing gesture control mode	Hand gesture recognized for commands.

**Non-functional Requirements:**

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	<b>Usability</b>	Easy to use for all users with minimal instruction. It is understandable by non-technical users.
NFR-2	<b>Security</b>	Application will be permissible to used only in secure Networks and less feasibility of insecurity.
NFR-3	<b>Reliability</b>	It is operable in all lighting conditions. Regardless, of the brightness level in user's operating environment.
NFR-4	<b>Performance</b>	Minimize the number of calculation to perform hand gesture detection and to improve image quality resolution.
NFR-5	<b>Availability</b>	This application supports recognition of gesture only through internet connection.
NFR-6	<b>Scalability</b>	Scalable to support future developments and shall be at least 50% extensible to allow new gesture recognition features to be added to the systems.