

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

Date	12 October 2022
Team ID	PNT2022TMID18699
Project Name	Project -A GESTURE BASED TOOL FOR STERIL 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 the hand of the video capture device.
FR-2	Skin detection	Filters out objects that are not skin colored.
FR-3	Filtered object detection	Filtered Object Detection Reads and detects groups of skin-colored objects.
FR-4	Hand calibration	Make adjustments according to the user's dominant hand.
FR-5	Browsing gesture control mode	Hand gestures for commands are recognized.

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	Ease of use is easy for all users. It is understandable for non-technical users with minimal instructions.
NFR-2	Security	Only accessible on secure networks with administrator rights, so there is less chance of a security breach.
NFR-3	Reliability	It works in all conditions, regardless of the user's operating environment.
NFR-4	Performance	Minimize the number of calculation to perform hand gestures and improve the quality of image resolution.
NFR-5	Availability	If the gesture is available, only the app will work. This app is only available in surgery rooms.
NFR-6	Scalability	CNN scales the model using data expansion and gesture recognition with OpenCV, Tensorflow, Keras.