A GESTURE-BASED TOOL FOR STERILE BROWSING OF RADIOLOGY IMAGES

The use of doctor-computer interaction devices in the operation room (OR) requires new modalities that support medical imaging manipulation while allowing the doctor's hands to remain sterile, supporting his focus of attention, and providing fast response times.

In two brain surgeries at the Neurosurgery OR Washington procedures were observed to gain insights about the use of current technologies and how they affect the quality of the surgeon's performance. It is found that: (a) surgeons kept their focus of attention between the patient and the surgical point of interest on the touch-screen navigation system; (b) a short distance between the surgeon and the patient was maintained during most of the surgery; (c) the surgeon had to move close to the main control wall to discuss and browse through the patient's MRI images.

In this project, the model is first trained on pictures of various hand motions, such as showing the numbers 1, 2, 3, and 4 with the fingers. The video frame is captured by this model using the built-in webcam. The gesture is recognised by comparing the image captured in the video frame with the pretrained model.

I am	I'm trying to	But	Because	Which makes me feel
Doctor	Keep my Hands remain sterile	Has to use Keyboard&Mouse ,Inorder to Analysis the X-ray	the use of computer keyboards and mice by doctors and nurses in intensive care units (ICUs) is a common method for spreading infections.	Frustrated