

ABSTRACT

Stroke is a condition that occurs when the blood supply to the brain is interrupted or reduced due to a blockage (ischemic stroke) or rupture of a blood vessel (hemorrhagic stroke). Problems with the function of the arm (upper limb) are very common after stroke. Upper limb disorders usually include difficulty moving and coordinating the arms, hands and fingers, resulting in difficulties in carrying out daily activities. One of the efforts to improve the quality of stroke sufferers is rehabilitation therapy for stroke patients who have survived death so that the body will function normally again. By designing an upper limb stroke rehabilitation monitoring system, the rehabilitation exercise process can be done individually.

Post stroke rehabilitation patient monitoring system, which is a sensor that detects the patient's arm movement when the sensor is attached to the arm. The sensor is attached to Velcro, then the results of the recorded will be processed and displayed. Thus, rehabilitation patients can monitor individually the rehabilitation activities.

This system is designed to be able to assist in monitoring Upper Limb Stroke rehabilitation patients who are currently in rehabilitation. The system design gets accurate results with 100% results and quite precise at 60%. Then the system can assess the movement well.

Key Word : *Stroke, Upper Limb Stroke Rehabilitation, Sensor Accelerometer-Gyroscope*