

ABSTRACT

By placing electrodes into muscles, we can monitoring electrical activities on it. Electromyograph is used to detect muscle disease especially according to irregular muscle caused by another disease like neural disfunction. Besides to learn muscle functions, electromyograph also used in another field such as kinesiology, psychology and rehabilitation treatment.

In this final project, a simple electromyograph (EMG) is design where signal will be viewed on screen monitor as a replacement of an oscilloscope. Electromyograph will detect electrical signal which was generated in human flesh when contraction.

The device is consist of of detector, amplifier and atmega32 microcontroller. Detection of electromyograph is conducted by two electrodes placed on left bicep and amplifier. Then, the detected signal is converted into digital form and processed by microcontroller to generate video signal to be viewed in television.