

ABSTRACT

Veinlite is a vein illumination or imaging tool that can help medical professionals to perform vein tracking on patients easily and quickly. The author issued a loan and made "VEINLITE CONTRAS" using a light source from the High Power LED (HPLED) red color wavelength of 660 nm and orange 600 nm. The design module contains batteries, Arduino nano circuits, encoder, drivers and HPLED. The author uses the Rating scale Scale provides raw data consisting of numbers then transferred in a qualitative sense.

Based on the results of the module testing and survey the effectiveness of Veinlite Contrás gets results that are quite effective in the act of looking for vein vessels. It needs help to improve mechanical design related to the shape of the mechanics, the selection of the number of LEDs, power, and the wavelength of the light source to obtain a better appearance. After carrying out the planning, trial, module making, testing and data collection processes, it can be concluded from the "Veinlite Contrás" tool that can be used and according to planning.

The results of the questionnaire testing the respondents proved that the module was approved to be effective in helping the action of finding veins with a percentage of 95.47% in red and 97.87% in orange.

Keywords: *Veinlite, Intravenous / Venapunction, Veins, HPLED, PWM, Arduino*