

## ABSTRACT

*A defibrillator is an electronic device that conducts electrical shock signals (pulses) to the heart muscle to maintain myocardial depolarization which is undergoing cardiac fibrillation (ventricular fibrillation or atrial fibrillation). Cardiac fibrillation (cardiac fibrillation) is a condition in which myocardial cells contract asynchronously (asynchronously). When this fibrillation occurs in the ventricles, this causes cardiac output (CO) blood flow to drop drastically and can cause death within a few minutes later, when atrial CO fibrillation decreases but is not too fatal. (Bronzino,2000). In 2019 Muhammad Amir Ma'ruf, made a tool called DC Shock Simulation. This is the author's reference to create modules and develop existing modes, so that there are synchronous and asynchronous modes. The main purpose of making this module is to assist students in learning the defibrillator tool. In this defibrillator, the energy supplied ranges from 10-50 Joules with the use of tools 10, 20, 30, 40, 50 Joules. The energy will then be used up or given to patients by pressing the release / shock button on the paddle. This device is also equipped with synchronous mode. In synchronous mode the ECG signal is tapped on lead 2 because the readings are better than other leads. This study uses a type of pre-experimental with research One Group post test design. Measurements were made 5 times using a Volt meter at the test point specified by the compiler.*

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**Keywords:** *Defibrillator, Synchronous, Asynchronous, Arduino.*