ABSTRACT

In 2019 there are 633 green open spaces in Bandung, which on average have been equipped with various games such as swings, bowls to static bicycles. This can be used as an opportunity to overcome energi limitations in Indonesia, which is predicted in 2033 to import energi because the needs continue to increase every year. Harvesting energi can be a solution, one of which is by utilizing the spin of the carousel game or in Indonesia better known as a rotary bowl. The energi converter that originates from the rotary bowl movement consists of a mechanical sistem that functions to receive input from the rotary bowl rotation and convert it into electricity. MAX471 sensor as a detector of current and voltage coming out of the mechanical sistem and accumulator as storage of electricity generated. This sistem is also equipped with a microcontroller as receiver of data from the MAX471 sensor which will later display current and voltage values on the LCD. From the test results, this design can issue DC currents in milliamperes, this design can store with an average voltage at 0.12V, speed of 115 RPM in 3.8 minutes.

Keyword : Energi Harvesting, Green Open Space, Playground