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JURNAL TEKNOLOGI TERPADU VOL. 16, NO. 1 APRIL 2022 ISSN: 2338-6649  
Received: Januari 2021 Accepted: Maret 2022 Published: April 2022

### Studi Eksperimental Thrust dan Konsumsi Daya Pada Brushless DC Motor Rotomax 150cc

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#### Abstract

Unmanned aircraft or UAV (Unmanned Aerial Vehicle) is currently widely used in various fields other than the military field. With increasingly developed technology, the manufacture of UAVs is increasingly sophisticated and efficient. UAV currently uses a lot of electrically powered machines. The use of electric machines is triggered to prevent global warming or what is commonly called global warming. One of the electric machines used by the UAV is the Brushless DC Motor. Brushless DC Motor has high efficiency and good controllability. The purpose of this study is to see whether the performance of this machine is in accordance with the data sheet. Therefore, before using the machine, it is necessary to test the Brushless DC Motor to determine the performance of the Brushless DC Motor according to the data sheet. In this paper, the Brushless DC Motor is tested to determine the thrust generated by the Brushless DC Motor, and to determine the power consumption required by the Brushless DC Motor when running. So in this test using a 150CC Rotomax motor, using a 30 x 8 inch Multistar Carbon Fiber propeller. This test was carried out using the experimental method. The test was carried out in 3 seconds using a 16,000 mAh LiPo battery with a voltage of 25.0V. The observed data starts from 500 RPM to 3,200 RPM. The results of this test can be seen at 500