



PROPELLER TEST STAND

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ABSTRACT

One of the difficulties face by the designer of model size radio controlled aircraft is the lack of data on propeller (and power plant) performance characteristics by the manufacturer and supplier of these equipments. As such, in sizing and selecting propeller and power plant, a large safety margin of error is used resulting in poor design. In order to be able to test the performance characteristic of these propellers two students were assigned the task of designing and manufacturing the test stand. The test stand should be able to measure the rotational speed and thrust of the propeller. The test stand was successfully conceptualized, designed and fabricated. During the preliminary testing, it was shown that the concept that was employed work fine. However, due to poor design and fabrication skills the test stand vibrated excessively at high rotational speed resulting in unreliable data.

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