

# Study of temperature rise in small Brushed DC Motor components under different voltage

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## **Abstract.**

Demagnetization of the magnet and the short-circuit always involves in the brush DC motor. These thermal damage problems happen when the process of heating is in progress. In this paper, the components of the DC motor and the comparison of the temperature rise under different voltage are being identified. Instead of that, the effects of temperature rise at the component are being analyzed. Preparing a test bench, which connects the DC motor with the drive train, helps in collecting the data of temperature rise. Later, this motor will deliver some heat from the brush through the motors' component and lastly to the outer space of the motor while it is running. As results, the temperature rise of DC motor will show which components are most sensitive towards the heat when different voltages are been applied and finally the discussion on the graph pattern of temperature rise will be discussed.