

**The Objective:**

Customer required a brush less design of the AC Blower motor with embedded electronics, comparable in cost to the existing motor.

**The Challenges:**

The major challenges in this project were the cost target. We have to optimize the design to meet the size requirement. Other challenge was to ensure that the electronics doesn't heat up.

**The Solution:**

Optimization of the design was done by using "Speed" software. The Controller was packaged into the BLDC housing. The stator was used as the body of the motor, thereby reducing cost, while providing much better cooling. In order to further reduce cost of the electronics, 2 phase design was prototyped which beat the cost target.



