

Motor Controller Cooling System Errata

ECE 492 Spring 2018

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Overall:

1. The system was not used during the race in competition because it took up too much space. Smaller radiators might fix this problem
2. Perform an overall analysis on whether or the not the cooling system is needed. This can be done by measuring the performance of the motor controller on the DYNO w/o the cooling system and compare it to the performance with the cooling system.
3. Perform a thermodynamics analysis of the cooling system. How much does it actually cool the controller? What is the average temperature during peak usage? Things like that.
4. The screen was difficult to see the way it was mounted. Splicing the wires and adding a jgb board then hooking it up to the CAN network might be useful
5. Implement the system designed by spring 2017. This way you have a custom controller (Arduino) and it would be very easy to add a safety loop function and CAN interface