

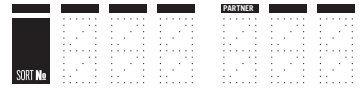
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USE TEMPLATE

0	1	2	3	4
5	6	7	8	9

MISFILL -1 PT



Please print this sheet prior to coming to laboratory. Complete the pre-laboratory tasks in your lab notebook. Complete the lab tasks in **both** your lab notebook and this submission sheet.

1 Pre-laboratory Verification

4E .. 59	4E .. 60	4E .. 61	4E .. 62	4E .. 63	4E .. 64
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2 Laboratory Verification

4E -- 65

3 Deliverables

1. Attach a printout of the **bldc_controller.vhd** VHDL code.
2. Attach a printout of the block diagram.
3. Assuming that the motor spins at 7,200 RPM when the period of one full rotation is 231.17 μ s, calculate the approximate speed of the motor if the period is 12 ms (six states of 2 ms each). Show your calculations or dimensional analysis.

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4. How does the pitch of the motor change as you connect more signal leads? Explain why.

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5. Can the motor be started from a stopped state with all three signal leads connected? Why or why not? Provide a detailed explanation.

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