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| **Guidelines** | **Max Score** |  **Score** |
| Creative Ability:• Research is student-­‐initiated and original (0-­‐5)• Problem solving approach is creative (0-­‐5)• Equipment is creatively used and/or modified (0-­‐5)• Interpretation of data shows creative and original thinking (0-­‐5)• Understanding of project implications (0-­‐5) | 25 points |  |
| **Scientific Thought:**• Clear and unambiguous understanding of problem(0-­‐4)• Clearly designed project plan for determining a solution (0-­‐4)• Variables clearly recognized and defined; controls used correctly (0-­‐4)• Data adequately supports conclusions; limitations recognized (0-­‐4)• Scientific literature cited; not just popular literature (0-­‐4)**OR****Engineering Goals:**• Clear objective (0--‐4)• Objective relevant to potential user’s needs (0--‐4)• Solution is workable and economically feasible (0--‐4)• Solution could be used in design or construction of end product (0--‐4)• Solution is a significant improvement over current alternatives (0--‐4) |  20 |  |
| **Thoroughness:**• Original research question was completely addressed (0--‐4)• Conclusions are based on replication(0--‐4)• Project notes/lab notebook complete (0--‐4)• Student is aware of alternate approaches or theories (0--‐4)• Student spent appropriate amount of time on project (0--‐4) |  20 |  |
| **Skill:**• Data was obtained and analyzed appropriately (0--‐5)• Student worked largely independently (0--‐5)• Student has required skills and understanding to continue research independently (0--‐5) |  15 |  |
| **Clarity:**• Clear discussion of project in paper (0--‐4)• Written material/poster reflects understanding (0--‐4)• Data and results presented clearly (0--‐4)• Presentation is forthright (0--‐4)• Student designed and created poster largely independently (0--‐4) |  20 |  |
| Total Points |  100 |  |