Team or Design Name

line 1: 1st Given Name Surname   
line 2: *dept. name of organization (of Affiliation)*  
line 3: *name of organization (of Affiliation)*line 4: City, Country  
line 5: email address or ORCID  
  
line 1: 2nd Given Name Surname  
line 2: *dept. name of organization (of Affiliation)*  
line 3: *name of organization (of Affiliation)*line 4: City, Country  
line 5: email address or ORCID  
  
line 1: 3rd Given Name Surname  
line 2: *dept. name of organization (of Affiliation)*  
line 3: *name of organization (of Affiliation)*line 4: City, Country  
line 5: email address or ORCID  
  
line 1: 4th Given Name Surname  
line 2: *dept. name of organization (of Affiliation)*  
line 3: *name of organization (of Affiliation)*line 4: City, Country  
line 5: email address or ORCID

*Executive Summary* — Succinct (100 – 200 words) summary of your design, analysis, and key results.

# DESIGN DESCRIPTION

Present your design and describe key design features. **The main body of the report (not including appendices) should be 3 or 4 pages (with body text at 10 pt, Times New Roman font, single spaced, two-column format).** You should use schematics or illustrations to visualize the heat sink. Include additional figures and tables as required in the appendix B.

# DESIGN ANALYSIS

Describe your analysis method including assumptions and corresponding justifications. Present your key results and use your engineering knowledge to critically analyze the findings. Describe any possible limitations of your analysis. This section should explain your design and analysis methodology and the next two sections should specifically indicate the two metrics described in the design guidelines.

# PREDICTED FIGURE OF MERIT

The groups should submit a cost-based Figure of Merit (FOM) as described in the competition guidelines. The groups should predict the figure of merit of their design and explain their analysis here.

1. Figure of Merit Data

| Parameter | Value |
| --- | --- |
| *Flow Inlet Velocity* [m/s] | 3.5 |
| *Flow Inlet Temperature, Tamb* [oC] | 20 |
| *Heat Sink Mass, mheat sink* [g] |  |
| *Heat Sink Cost, $heat sink* [$] |  |
| *Heater 1 Temperature, Theater 1* [oC] |  |
| *Heater 2 Temperature, Theater 2* [oC] |  |
| ***Figure of Merit, FOM* [$-1 oC-1]** |  |

# ADDITIVE MANUFACTURING

Describe the advantages and disadvantages of using additive manufacturing to create your designed heat sink.

##### References

Use [IEEE format](https://www.ieee.org/documents/ieeecitationref.pdf) to cite references if needed. You can use reference managers like EndNote, [Mendeley](https://www.mendeley.com), and Zotero to easily insert references.

##### APPENDIX B: ADDITIONAL SUPPORTING MATERIALS

Additional details of code or solution methods, plot outputs, detailed calculations, etc. There is no page limit to this section.