

ENR145 Assignment #10: show me your comsol skills

Due: 4/1/26 9:00 pm

Make a heat sink model use the model provided by me (you can find it on the moodle page).

The step-by-step guide is here:

<https://www.comsol.com/model/electronic-chip-cooling-47721>

Use every recourse that can help you build this model quickly and easily.

Use the heat sink design provided by me, and show me:

In the first part, only the solid parts are modeled, while the convective airflow is modeled using *Convective Heat Flux* boundary conditions.

In the second part, the model is extended to include a fluid domain for the flow channel to compute the coupled temperature and velocity of the fluid, assuming nonisothermal behavior.

In the last part, surface-to-surface radiation is considered to see how significantly it contributes to the results.

To proof your work and efforts, please submit a PowerPoint/google slides/PDF as a report by the submission deadline. Consider this as a **pre-run** for your final project submissions.