

AerE344 Pre-Lab Assignment - Experiment Design Component

Lab # 9: Set up of a Schlieren/Shadowgraph System to visualize the flow field of a thermal plume

You will need to finish this pre-lab assignment before you come to the wind tunnel laboratory to do the experiments.

What you will be given for your experiment:

- A set of optics including mirrors, lenses and associated mechanical mounts.
- A candle to generate a thermal plume
- A razor blade with a sharp edge
- A white plate as the screen to project the flow visualization images

What you need to know before you come to the lab:

- You should review and understand the connections and differences of schlieren technique and shadowgraph technique.

What your experiment needs to produce:

- ***There is no lab report required for this lab!***