AerE344 Pre-Lab Assignment - Experiment Design Component

Lab # 08: Visualization of the Shock Waves in a Supersonic Jet by using Schlieren technique

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 blown down supersonic wind tunnel
- A De Laval supersonic nozzle
- A schlieren flow visualization system

What you need to know before you came to the lab:
- You should review and understand the concepts of subsonic flow, transonic flow, supersonic flow.
- You should review and understand the concepts of shockwave, total-Static-Mach relationship.
- You should review and understand the concepts of quasi-1D Nozzle theory and de laval nozzle.
- You should review and understand the concepts of schlieren technique.

What your experiment needs to produce:
- This is a demonstration experiment. There is not lab report required for this lab!