

Airflow

On this table we have three demos:

Wing Stall: This is the primary demonstration. We will have a fan and a large RC airplane without an engine. On the wing we've taped threads, similar to a real stall test for a wing. Holding the airplane level into the fan will show the threads straight, and as you pitch up the threads will begin to curl as the wing stalls. Connections to Bernoulli and loss of lift as the flow disconnects. (We also have a Bernoulli demo making smoke rings so ask if they've seen that yet and/or point them there)

Pizza box lift: I have yet to try this but we were thinking we could have either the hair dryer or the fan blow across a pizza box lid to show how it lifts up.

Hairdryer & ball: suspend a ping pong ball in the air over the hairdryer's flow and then tilt to show that it can be kept up even when not directly over the hairdryer due to lift from the blowing air. This is the least understandable and you may not be able to do all three anyway, but it will be there if you want it.

Supplies:

- Fan
- Airplane
- Hairdryer
- Ping Pong Ball
- Pizza Box