The purposes of writing this detailed protocol are:

1. To force you to think through the details of your experiment one more time before you actually perform it so that you get used to the idea of planning ahead and so that you anticipate and hopefully avoid pitfalls.
2. To state your experimental protocol in enough detail that other researchers could repeat the experiment exactly as you have done.
3. To state your experimental protocol in enough detail that I (your instructor) can tell if you correctly and effectively used blocking, controlled variables, replication, and randomization.
4. To ensure that you are taking safety precautions where applicable.

It is very important that the writing itself be clear. You may do the experiment correctly, but you must also write about it correctly.

The submission process:

1. Write the protocol as a word document.
2. You will bring to class Tuesday Oct 13 one hardcopy of the protocol for each member of your group, and one hardcopy for me. So if you have 4 group members, you will bring 5 hardcopies.
3. You will turn in one copy so that I can give you credit for having completed the protocol.
4. In class, you will trade papers. Each hardcopy you brought will be given to a classmate, and you will get a hardcopy of another group’s protocol.
5. By the next time we have class, you will have completed a peer review of the other group’s protocol.

More on the protocol

Put your group number, title, and names of all group members at the top. You should use first person. Tell exactly what you will do, in detail. You can decide for yourself how best to structure your paragraphs. You will want to use headings to make it easy to read. You might want a very specific materials list with quantities and brand names. You might need to make photographs or drawings to explain what you plan to do. It might be a good idea to use the proposal structure to list the key components of your experiment for a quick overview: factors (levels), response variable, blocking variable, exp units, controlled variables, number of replicates, etc. If you use tables or lists, however, they should not be viewed as standing alone. You should have text explaining everything you will do, and the text can refer to the lists and diagrams. When you describe randomization, you should look at the posted example on how to write about randomization.

All decisions must be made. What are the units you are using for pressure? What brand/ cost of paper towels are you buying (go ahead and buy them if you want to)? If, in the act of performing the
experiment, you discover a good reason to change something in the design of the experiment, then you may make a change. But that should only happen because of an unanticipated glitch, and right now your goal is to anticipate all glitches.