

Instructions for Program (Script) Files, 3/3/18

We are starting to get to the point where the homework will be script (.m) files. There are definitely some things I expect:

- It should run!
- The first line should be a comment with the assignment name or description
- Second line should be a comment with your name and the date it is submitted to me
- If you worked with anyone else, include that on a third line of comments
- Include lots of white space in your code to make it readable for me (or for your future, anyone you work with) I like a blank line between chunks of things. For example, I leave a blank line after all my comments, then another after all my variable declarations, maybe between the x and y components.
- Whenever it makes sense, use standard physics notation and conventions, v_0 or v_0 is initial velocity. Or you can type a word that is obvious like `initVel` or `velWithDrag` or something like that.

$$\vec{g} = \begin{bmatrix} 0 \\ -g \end{bmatrix}$$

where the g is the magnitude, so $g = 9.8 \text{ m/s}^2$. This is also convention.

- A corollary: don't use standard physics notation like v_0 for something other than initial velocity.
- Use readable variable names. If it's not a standard physics thing, use a word that is understandable
- Comment things when they start to get complicated. Often, if you use good variable names, you need fewer comments. If you do something like rotate an axis, you might need to comment that in your code. And maybe on axes of graphs.
- If possible: Put all functions used in the code at the end of the code. (it is actually not possible if you are using older versions of MATLAB.)
- Unless the function name is entirely obvious, each function gets a comment of description.
- Plots should have titles, axis labels and any features mentioned in the assignment.
- The name of the file should be `assignmentName_YourName.m`
- If there are multiple files for one due date, please include them all in one email to me.
- As a tip to see if your code runs before you turn it in, be sure to `clear` your workspace and try it yourself.