

Files mandated by Lab 3 SP23

Files mandated by Lab 2

Your lab 2 **must** be split over various C code files and header files.

C code files:

- lab2.c owns main and only the highest level functions
- you need a file to deal with the bit field
- you need a file to deal with physics and motion
- you need a file that does nearly all of the output
- you need a file that does input
- you need a file that dynamically allocates and frees ball structures
- optional: a file for simulation code that is too low level for lab2

Header files for constants:

- A file that has the struct declarations that nearly everything but the bits code will need.

Lab 3 must **not** use an array for ball data so it will not need “subscripts.h” or equivalent.

Header files for function declarations:

Use **make -r headers** each time you add a function to any of your C code files. Remake the headers if you change the signature of any function as well.

Every C code file you write must include its own header so that the declarations in the header are validated against the definitions in the C code file. In other words, lab2.c must `#include lab2.h`.

If you get weird errors about your functions, run **make -r headers** again and then rebuild the lab code.

Also check for a missing `#include` if you get errors about functions that you call in other files.

You will need to `#include` some of those function declaration header files in more places than the code that generates them. It is likely that lab2.c will need to include the header file for the output functions. The bits header file will be needed in a few places, but bits should not need any outside header files.