Lunar Lander Simulator Questions

1. Why can’t we make the member variables of simulator private? Main doesn’t call them, but call back does. Since call back is a method in the class, shouldn’t it have access? Why then do we get an error?
   1. Because call back is actually not a method in a class
2. Why should the simulator constructor be declared outside of the class? (TA feedback)
   1. To get around the problem we were having star and ground both need default constructors. Can get around by using reset function.
3. Why do we need a callback void pointer that turns into a simulator pointer? Why not just declare a new simulator object?
   1. Abstraction. OpenGL was written before objects were a thing.
4. Which goes first? Public or private in a class in C++ ?
   1. Personal preference, most do public first since that’s what you see first.
5. Why can’t velocity be a point? Is it just get speed and the boundary (we could fix this with max velocity)? Or could we have vector class or at least, velocity inherit from point?
   1. This has to do with is a has a inheritance and a philosophical question of whether velocity is a point, speed, or vector. Best is to just say velocity has a point.
6. Where can we find the consts of the lunar lander like the landing speed?
   1. <https://content.byui.edu/file/18b1e464-da51-4539-ac78-a1f18e7ae358/1/Ponder/230.03.Lab.html>

* Move function will be moved to simulator class calling it from lander after keys pressed is called. Not keys pressed calling it directly.
* Change time to const
* Num stars should be const
* Move draw ground to draw.ui
* Wrap callback function calls for cohesion
* Implement collisions in ground better
* In simulator we only want to move if the lander is flying do this by asking if not crashed and if not landed.
* Thrusters::mainFuelUse per ignition specification and same for aux
* Implement too fast landing
* Go check style and put headers and comments