Ship Programming Ideas:

Ship Component System:

A basic component will consist of these main data types:

* String - Component Name
* String – Component Description
* Color - Primary Colour
* Color - Secondary Colour
* Color - Accent Colour
* Float - Durability
* Float – MaxDurability
* Mesh – ComponentMesh
* GameObject – shipGameObject
* Enum – ComponentType
* Float – PowerContribution – Can be negative or positive, all power contribution on all components of a ship added together to see overall power net.

A component can have the componentType enum values:

* Small – Utility Features – support based items.
* Medium – Armour, shields, components used in collaboration with large components.
* Large – Large attachments such as weapons or drills.
* Expansion – Passive ship size increase, for example extra weapon bays etc or storage.
* Upgrade – Small benefits and ability increases to large/medium components.
* Special – Unique components such as hull, reactor etc.

This component can be expanded with new functionality. This can include the addition of multiple new variables such as the reactor could have a heat value assigned to it. Components will also have the base functions/events (which can be inherited and modified):

* OnActivate – When this particular component is activated
* OnDeactivate – When this particular component is deactivated
* OnShipStart – When the ship is started
* OnShipShutdown - When the ship is shutdown
* OnShipUpdate – When the ship is running, basic update function

The ship will make use of this event system in order to make the most of the modularity of this component system.