Pre-production Assessment

Group: PseudoSauce
Members: Carlo Albino, Chris Aytona, Derek Mallory, Wahid Shafique
Working Title: Everybody Loves Rayguns

High level description:
First person puzzle game. You manipulate objects in the environment using a ray gun that allows the player to shrink/grow or teleport objects. The goal is to use the ray gun to solve each puzzle to reach the end.

Current state: Conceptual
Technology used: Unity, GitHub
Repository: https://github.com/PseudoSauce/Everybody-Loves-Rayguns
More in depth GDD is in documentation folder of repository
Assets: TBD

High level tasks:
Gameplay:
-Create a first person controller/camera
-Create the weapon/weapon interactions (Grow/Shrink Ray, Teleport Ray)
    -Weapon has 2 modes
        -Shrink/Grow Ray
            -Shrink is primary fire
            -Grow is secondary fire
            -Shrink/Grow Ray affects the object that it is locked to
            -If the player stops shooting the lock is broken
            -If the player breaks line of sight the lock breaks
        -Teleport Ray
            -Teleport is primary fire
            -Deploying a teleport beacon is secondary fire
            -Primary fire only works when a beacon is deployed
            -One beacon deployed at a time
            -A new beacon deployed the old one is destroyed
    -Player feedback from weapon
        -Clear indication of what Ray the gun is currently shooting (colour should change)
        -Shrink/Grow Ray connects directly to object it affects
        -Teleport beacon has a particle effect emmiting from it to show the direction the teleported object will appear from

Gameplay continued:
-Create interactable objects
    -Only certain types of objects can be affected the rays
    -Teleport beacons can only be stuck onto certain types of surfaces
    -Force field that the player can walk through, but Rays cannot pass through
    -Moving platform
    -Buttons to open doors and move platforms
    -Doors to separate levels

UI:
-Outline targeted object
-Menus

Physics:
-Determine how shrinking/growing and teleporting affects surrounding level
-Objects cannot teleport if the location of the beacon is too small for the objects
-Maximum size objects can grow to

AI:
-Simple enemies
    -Stationary turrets
    -Patrolling turrets that follow the player when the player is in sight

Multiplayer:
-Local/Network 2 player multiplayer
-Multiplayer
    -Design a multiplayer mode
    -1 vs 1 Networking

Level Design:
-Design levels based off of abilities
-Design a minimum of 5 levels using all 3 Rays, at least 1 tutorial level for each Ray

Member's strengths/preferences:
Carlo: UI, Gameplay, Level Design
Chris: Networking, AI, NOT Level Design
Derek: Gameplay (Systems)
Wahid: Gameplay (Abilities), Level Design

Engine explanation:
We will use Unity because it is the engine that we have most experience with. Also, last term we tried using Unreal Engine and we had a hard time working with the engine. Unreal Engine tended to crash constantly. If we want to have a polished project our best bet is to use Unity.