Team a001

Engine Proof / inimum viable product Requirements

Presentation 2/9/17

# Sound Engine

* Dynamic Sounds
  + Smooth transition from left to right speaker as sounds move across screen
  + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Sound Library
  + Unique Sounds for each action (See sound library document)
  + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Sound Component functions for entities to access library.
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

# Input Engine

* 4 - player support
  + Connection checks
  + Battery level functions for use in future HUD
* Intuitive Controls
  + Left Thumbstick to control rotation
  + Mappable ABXY buttons
    - Hold/Press functions
  + Intuitive force increase/propulsion
    - Trigger pressure – increased propulsion
    - Propulsion and force tied to rotation.
* Control Component functions for entities to access controls from keybind library.
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

# Physics Engine

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
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# Content

* 1 Hero Ship
  + Basic control scheme as described above
    - Auto-Attack (Hold)
      * Medium fire rate, small projectile
      * Deals 1 damage on impact
    - Thumbstick Rotation/Direction
    - Right Trigger Propulsion
  + Health Value of 1
* 1 Enemy Ship
  + Basic Shape
    - Square
  + Suicide AI
    - Approach nearest player at fixed propulsion
    - Destroyed if impacts a player, deals 1 damage.
    - No projectile attack
    - 1 Health, destroyed if shot by player.
* 1 Jump-gate as win condition. Placed opposite corner of player start area

# Graphics engine

* Parallax effect
  + Custom Background Image
  + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
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* Dynamic Camera
  + Adjusts based on player positions
  + Max/Min zoom
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
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