Hacking

Hacking should be an action available to the player that changes the state of certain objects in the game world. Utilizing hacks to change the state of otherwise unchangeable objects gives the player new gameplay opportunities.

How it Works:

The hacker will lower his weapon and bring up the PDA with his other hand. This is done by pressing tab. On the lower left part of the screen is the relevant information related to the hack. Aiming at hackable objects (regardless of distance) brings up a list of hacking options, as well as the relevant difficulty. Left-clicking initiates the hack that is currently selected/highlighted, while the mouse wheel scrolls through hacking options.

About The Hacker's Skill:

The hacker's skill is represented by a value of 1 to 5; a number that increases as the player progresses through the game. This skill number is involved with:

- The distance available to hack remotely.
- The hack's difficulty.
- The speed of the bar filling up during the trivial hack.

These are explained below.

About Distance:

At the start, the hacker can only hack an object if he is right on top of it. As the player progresses through the game, the distance to which the hacker can hack will increase. Therefore, hacking happens at several distances. Hacking options are accessible only when the player is within range, even though they might appear as hackable on the PDA. Straying from the maximum distance interrupts the hack, resetting it completely.

- *Immediate proximity*. Requires the player to be extremely close to the hackable object (<2m).
- *Remote*. The player can hack as long as he has line of sight on the hack. Breaking line of sight resets the hack. To be in range, the player must be within (2m + 5 * Hacker Skill), or for every 1 skill the hacker has, they gain 5m of range.
  - A hacking skill greater than four should allow the hacker to hack through walls.
  - The further the player is away, the more energy it costs to hack ().

About Difficulty:

All hackables should have a numeric difficulty attached to them, from 1 to 8, as set by designers on a per object basis. The difficulty of the object minus the player's skill represents how difficult the hack is, as noted below.

Distance should be included in the difficulty of the hack (touch vs remote).

- *Less than or equal to 1*: Trivial. A bar fills up over a few seconds and the hack is successful.
- 2-3: Complex. Mini-game required (details to follow).
- *Greater than or equal to 4*: Can't hack.

The Hackables with Available Options:

- Doors
  - Open: Changes state from closed to open
  - Closed: From open to closed
  - Unlock: Unlocks the door
- Cameras
  - Disabled: Disables a camera from functioning. Length of time is determined by the hacker's skill.
  - Remote: Sees what the camera sees.
  - Friendly: Changes the camera's faction so that the player is friendly.
- Environmental Pipes
  - Explode: Changes the pressure of pipes so they explode.
- Vending Machines
  - Operational: Make the vending machine/3D printers functional.
  - Distraction: Turn the vending machines into a weapon that assaults enemies.
- Turrets
  - Disabled: Disables a turret from functioning. Length of time is determined by the hacker's skill.
  - Friendly: Changes the turret's faction so that the player is friendly.
  - Full Control (implement later)
- Cyborg/Drones
  - Friendly: Changes the cyborg's faction so that the player is friendly.
- Light control (light volumes)
  - Light: Changes the state of a light volume from dark to light
  - Dark: Changes the state of a darkness volume from light to dark
- Temperature control
  - Frigid: Changes the temperature of a room so it's cold
  - Normal: Changes the temperature of a room so it's normal
  - Hot: Changes the temperature of a room so it is hot.