Game Design

- Game State

- Game Mechanics

- Theme, Goals, and Conflict

- Rapid Prototyping

Game State

Game state is the current situation in the game. At the start of the game, the game state is the same as the setup of the game (e.g. the starting positions of the pieces in chess).

Game state includes things like:
• which player has the current turn
• the positions and numbers of game tokens
• the amount of resources each player has
• the board configuration
• etc.

If a video game is saved, the game state is what is stored on disk.

Game Mechanics

Game mechanics are the individual bits that make up the full rules of a game.

Game mechanics come in a variety of formats:

do X
deal five cards to each player

if you do X, then Y happens
if you roll the highest number, you get to go first

if X is true, then you can do Y
if you land on an unowned property, you can buy it

if X is true, then Y happens, otherwise Z happens
if you land on someone else's property, you must pay rent, otherwise you go bankrupt and lose

Game Dynamics

Game dynamics are what happens when game mechanics interact with one another and with players. A game's dynamic is often what people think of as the "type of game" that a set of rules creates. For example:

> *Territory acquisition* games like Civilization, Starcraft, Risk, and Axis & Allies.

> *Race* games like Mario Kart, Cranium, Formula De, and Galaxy Trucker.

> *Collection* games like Trivial Pursuit, gin rummy, and Carcassonne.

Many games fit in multiple categories (for example, some territory acquisition games are just a specific sort of collection game).

Theme and Goals

The **theme** of a game is what we referred to in the previous chapter. *Game mechanics should support the theme of the game.* For example, the players don't know the name of the culprit at the beginning of a game of Clue, a game with a murder mystery theme. Game mechanics that support the theme of a game go a long way toward making that game engaging and fun.

The **goal** of a game is what the players want to accomplish in order to win (or at least end) the game. It is essentially a game mechanic, which means that *the goal should also fit with the theme of the game.*

Conflict and Interference

Conflict and **interference** describe any game mechanics in the game that allow players to interact with one another. Conflict is mandatory interactions in which one player opposes one or more other players. Interference is optional interactions that could either help or hinder another player.

To add conflict to your game, consider an action that a player can take and then try to figure out a way for another player to neutralize, change, or assist with that action. Then you can think of ways to stop the interference, and stop the stopping ... you can take is as far as you like.

Rapid Prototyping

A prototype is a model of how a game will work. **Rapid prototyping** is the practice of making a quick prototype with paper and tokens and playing it, allowing you to go through a number of iterative design cycles quickly.

Design

Test ← Prototype
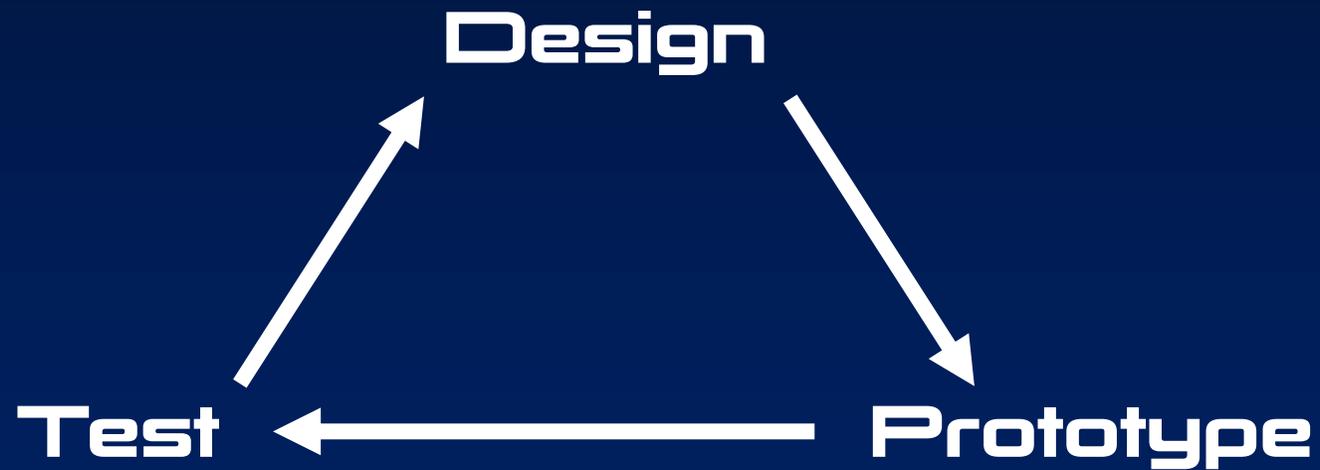
Rapid Prototyping

Easy Mode: Create a race-to-the-end game.

Normal Mode: Create a territory acquisition game.

Hard Mode: Create an exploration game.

Insanity Mode: Create a game with a theme based on an historical war that does not use territory acquisition or the removal or destruction of an opponent's tokens.