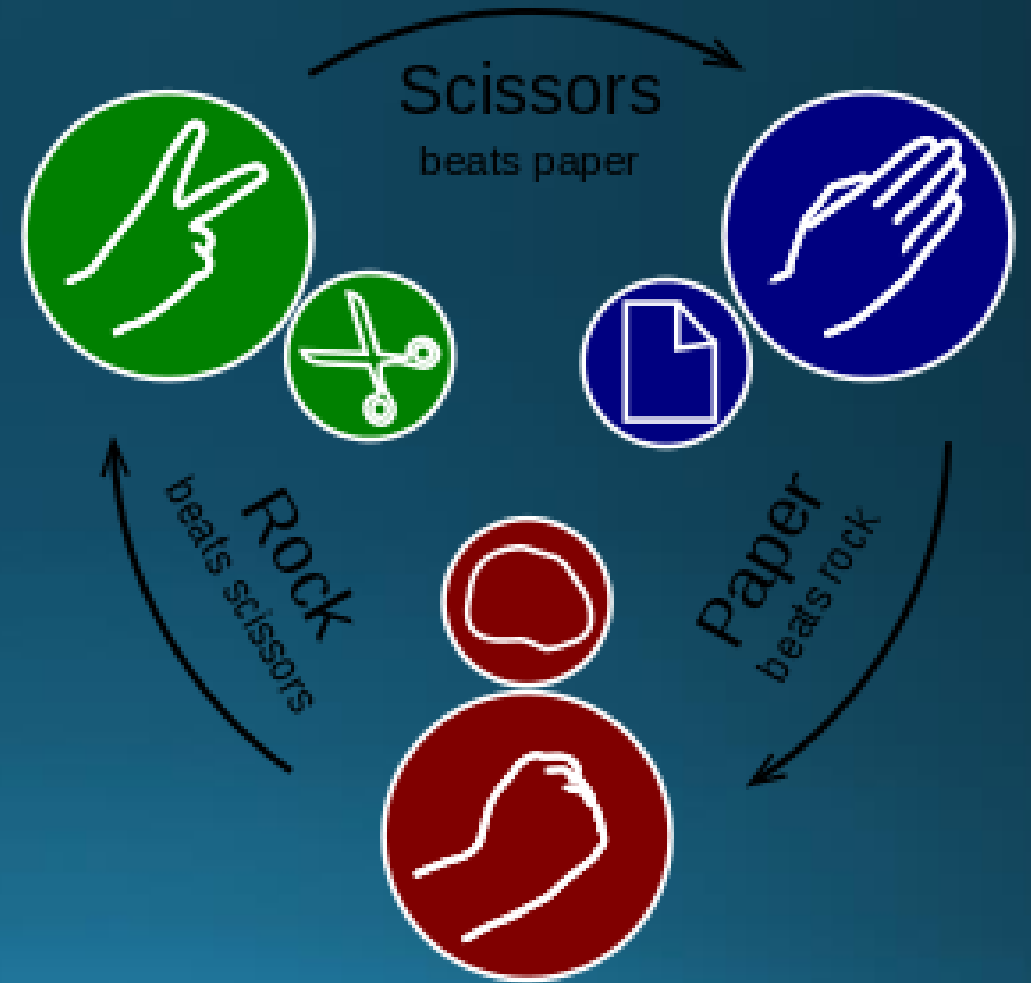


CPS 499

Lua Box-Chase Game

Rules and Inspiration

- Inspired loosely by Rock-paper-scissors
- Two players compete by controlling a square “character” within the game
- Players swap between three “modes” or colors
- When two players make contact the player with the winning color earns a point



Tools Used:

- [LOVE2D Game Engine](#)
- [Lua Programming Language](#)
- [The Simple User Interface Toolkit for LOVE](#)



Incorporated Concepts/Features

- Event callbacks and management of the gameplay loop
- Player movement
- Player and environmental collision
- Randomly generated gameplay hazards within the environment
- Keyboard and gamepad input
- Background Music

LOVE_{2D} Callback Functions

- love.load() – Automatically called at runtime to allow the user to setup the game logic and other tables
- love.update(dt) – Called to update the state of the game for every frame of animation. (Default: 60 FPS)
- love.draw() – Separate callback used to project graphical data to the game window

love.load() Implementation

1. Establishes Joystick Input
2. Initializes the window with a specified resolution
3. Starts the background music track on loop
4. Initializes the debug, scoreboard, game state, and player tables
5. Loads a map created by the map generation table

love.update() Implementation

1. Pauses the game if the window loses focus
2. Ends the game if a win condition has been met
3. Updates the position and "life" state of the players
4. Checks for hazard/player collision damage on each player after their movement has been acknowledged

love.draw() Implementation

1. Displays game over and paused game messages, if required
2. Draws the map and scoreboard
3. Draws the players if they are currently alive
4. If debugging is enabled then a debug value panel appears

Example Game

