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Graphic Programming Project

User interaction

User interaction is achived through the paddle controls left and right keys control the bottom paddle and the mouse controls the top paddle.

Basic collision detection

Collision detection is done when the ball comes into contact with either the paddle or the bricks.

Cartesian to polar coordinates

Cartesian to polar coordinates is achieved through drawing segments through the ball to give it the sliced appearance.

Illustration of

# movement

The top and bottom paddles both can move from left to right and the balls move around the screen.

# scaling

The balls get larger and smaller as they traverse the canvas.

# rotation of objects

The balls rotate while they traverse the canvas.

Multiple moving objects

Both paddles and both balls move on the screen at the same time.

Collision reactions

When the balls hit either the bricks or the paddles a collision sound is played.

When the balls hit either the bricks or the paddles they change direction.

When the balls don't hit the paddles, and hit the wall behind them the player loses a life.

When the balls hit a brick, they destroy the brick.

Additional features

# Color change function

color change function that changes the color of the balls, paddles, bricks and selected text a certain amount each animation frame.

# Menus

- main menu with play button that changes color.

- failure and winner menus also with play button that changes color.

# Music

-sound played when balls coliid with paddles or destroy a brick.

-background music played throughout menus and game.