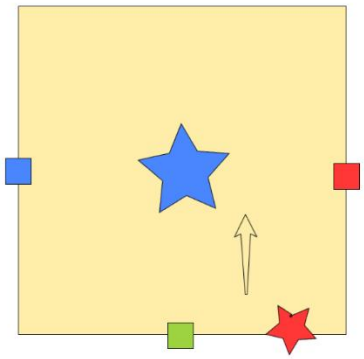
Assembly Game



Stars: Object to sort

Squares: indicate collision detection

Colors:

- Blue: recycling
- Red: trash
- Green: player keeps object

Overview

Objective: Sort as much trash and recycling as possible accurately within a time limit.

- Input: Arrow keys

- Title Screen: Loading screen with simple instructions about the controls and objective
    - Key input to enter the game loop

- Collision: There will be 4 places where trash can be sorted:
    - Each place will have collision detection so that current game object disappears, score is updated, and possibly the timer is updated to include more time (depending on the time).
    - 3 types of objects: trash, recycling, and gold
        - Sorting inaccurately decreases score
        - Keeping gold increases score/throwing away grants more time

- Physics: There needs to be a physics update to a game entity that includes acceleration (a change in velocity, not just a constant speed. This can be aesthetic and not mechanical)
    - Object will slow into place when appearing before the player
    - When player throws object to any side, object will slow into the collision area

- Double Buffering: Use double buffering.

- Table Driven Methods (including 7-segment LED): This doesn't have to be just the 7 segment or a sin/cos table, but some way in which you are using tables to drive your functionality.

    - Timer will use 7-seg LED
    - Key bindings will utilize table-driven method

- Bitmap:
    - Timer will have a background with bitmap that gets redrawn when timer is updating

- Randomness:
    - The type of object that appears on the screen will be random

- Fixed Point Math:
    - Object movement will include fixed point math

- Audio: Your game should have some sound effects
    - Object movement
    - Timer update
    - Score update
    - Timer end

- Input/Update/Render Loop: your game should have a game loop that has an input, update, and render. Refer to Realtime Programming Fundamentals lecture.

You will need to come up with a game proposal that fulfills these requirements. Where relevant, convey how your game achieves the above in the proposal.