## Assembly Project: Dr Mario

Ao Tian (1010324472) Juntong Zhang (1010157508)

March 31, 2025

### 1 Instruction and Summary

1. Which milestones were implemented?

Milestone 1 Milestone 2 Milestone 3 Milestone 4 and 5

#### Easy Feature:

- 1) easy feature 1: implement gravity, so that each second that passes will automatically move the capsule down one row
- 2) easy feature 2: Have the speed of gravity increase gradually over time, or after the player completes a certain number of rows.
- 3) easy feature 4: When the player has reached the "game over" condition, display a Game Over screen in pixels on the screen. Restart the game if a "retry" (R) option is chosen by the player. Retry start a brand new game (no state is retained from previous attempts).
- 4) easy feature 5: Add sound effects for rotating, dropping capsules, land on something and the pause condition.
- 5) easy feature 6: If the player presses the keyboard key p, display a "Paused" message on screen until they press p a second time, at which point the original game will resume.
- 6) easy feature 11: Have a panel on the side that displays a preview of the next capsule that will appear.
- 7) easy feature 13: Draw Dr. Mario and the viruses on the side panels, as in Figure 2.1

A total of 7 easy featured implemented

#### Hard Feature:

1) hard feature 5: Play the Dr. Mario's theme music in the background while playing the game.

A total of 1 hard feature implemented

- 2. How to view the game:
  - (a) Pixes/unit, width and height
    - Unit width in pixels: 2
    - Unit height in pixels: 2
    - Display width in pixels: 64
    - Display height in pixels: 64
    - Base Address for Display: 0x10008000
- 3. Game Summary:
  - This game covers all milestone with the easy and hard features indicated above
  - P to pause game; Q to quit the game
  - When game over (capsule reach bottle neck), you can restart by pressing R



Figure 1: caption

- Four viruses with random color and random locations for each round
- background music is non-stop

# 2 Attribution Table

Ao Tian (1010324472)	Juntong Zhang (1010157508)
Milestone 1	Milestone 3 - Remove same color and drop unsupported capsule
Milestone 2	Easy Feature 1
Milestone 3 - collision with wall, virus, and capsule	Easy Feature 2
Easy Feature 5	Easy Feature 4
Easy Feature 13	Easy Feature 6
Hard Feature 5	Easy Feature 11