

Realise

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Introduction

This document will describe the installation, code structure, realization and key functionality of the game. The game is developed using the Pico-8 game engine.

Development Environment

- Programming Language: Lua
- Game Engine: Pico-8
- IDE: Zed, Neovim

System Specification

- Operating System: Windows, Linux or MacOS
- Memory: 1GB
- Disk Space: < 3MB
- Resolution: 128x128
- Input: Mouse Only

OR

- A Browser

File Structure

```
.
├─ docs/ <-- the document you reading is here
├─ index.html (web player)
├─ job.js (web player)
└─ src/
    ├─ area.lua
    ├─ belt.lua
    ├─ color.lua
    ├─ debug.lua
    ├─ difficulty.lua
    ├─ explosion.lua
    ├─ game.lua
    ├─ item.lua
    ├─ main.lua (game loop)
    ├─ menu.lua
    ├─ mouse.lua
    └─ job.p8 (main file, used by Pico-8)
```

Main File

```
-- job.p8

-- state machine
#include main.lua

-- objectives
#include difficulty.lua

-- States
#include menu.lua
#include game.lua

-- input
#include mouse.lua

-- logic
#include belt.lua
#include item.lua
#include area.lua
#include explosion.lua
#include color.lua
#include debug.lua
```

```
-- enable mouse and keyboard input
poke(0x5f2d, 0x1, 0x2, 0x4)
```

Functionality

Spawning of Items

```
function add_item()
    local item = {}
    local belt = rnd(belts)

    local safe = flr(rnd(2)) + 1 == 1
    local sprite = safe
        and SAFE_SPRITES[flr(rnd(#SAFE_SPRITES)) + 1]
        or DANGEROUS_SPRITES[flr(rnd(#DANGEROUS_SPRITES)) + 1]

    item.id = id_counter
    item.x = belt.flipped and 112 or 0
    item.y = belt.y - 3 + flr(rnd(3))
    item.dx = 0
    item.safe = safe
    item.sprite = sprite

    add(items, item)

    id_counter = id_counter + 1
end
```

Screenshots

Dialog

SUBJECT: DAY 1 (MONDAY)

INSTRUCTIONS:

- OVERSEE CONVEYOR BELTS
- LET RED BACKPACKS PASS
- REMOVE ILLEGAL ITEMS
- 20 TOTAL MISTAKES
- MUST MEET DAILY QUOTA

(THAT'S HOW MANY BACKPACKS
YOU NEED TO PASS FOR THE DAY)

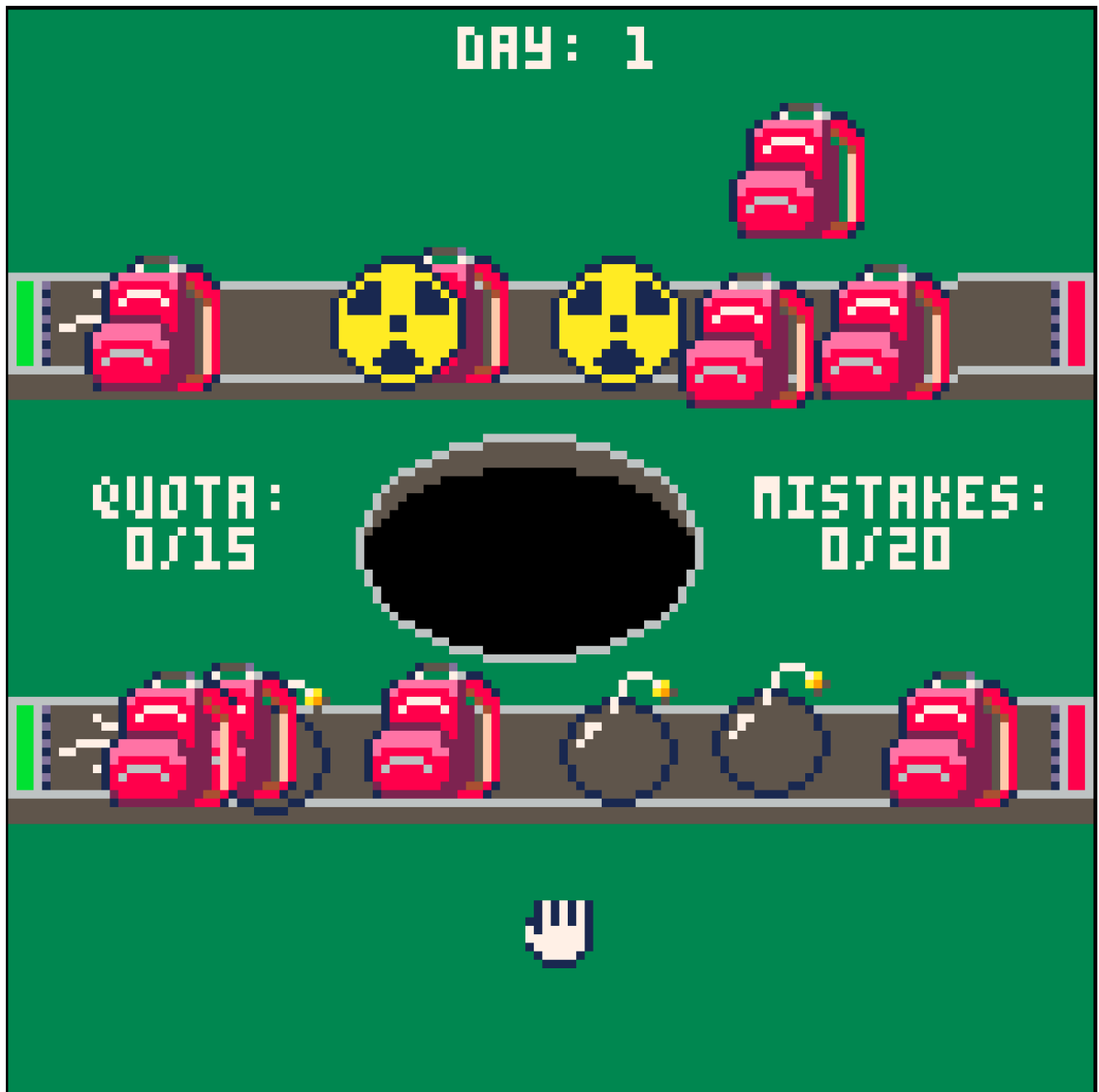
GRABBING AN ITEM STOPS TIME.
MOVING FAST WILL DROP ITEMS.

QUOTA: 15 <--

GOOD LUCK :)



Gameplay



Installation

- [Play](#) in the browser.
- Download the executable or source code from [here](#).