# Learning English Through VR & 3D: The Conveyor Challenge

Our application is an interactive game designed to help players learn English in an engaging and dynamic way, either in VR or directly in a web browser. The game places the player in front of a conveyor belt, where various objects continuously move forward. The goal is to correctly identify and deliver the requested objects to NPCs (non-player characters) before they are destroyed.
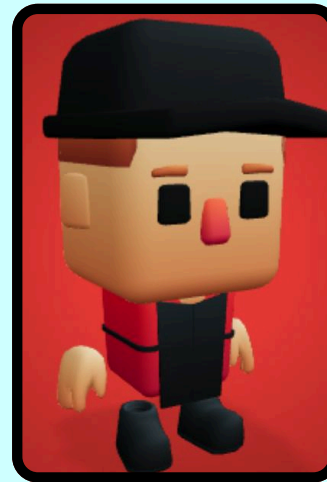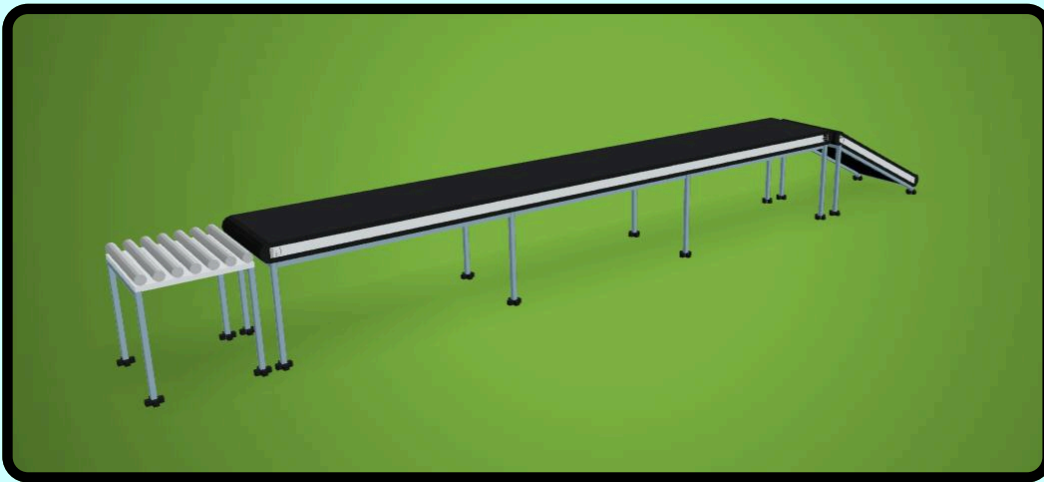
Game Concept & Learning Mechanics

Several NPCs take turns asking for specific objects using English instructions. These requests can range from simple descriptions, such as:

- "Can you bring me a red object, please?"
- "I need something round. Could you find one for me?"
- "I'm looking for an item made of wood. Can you help?"
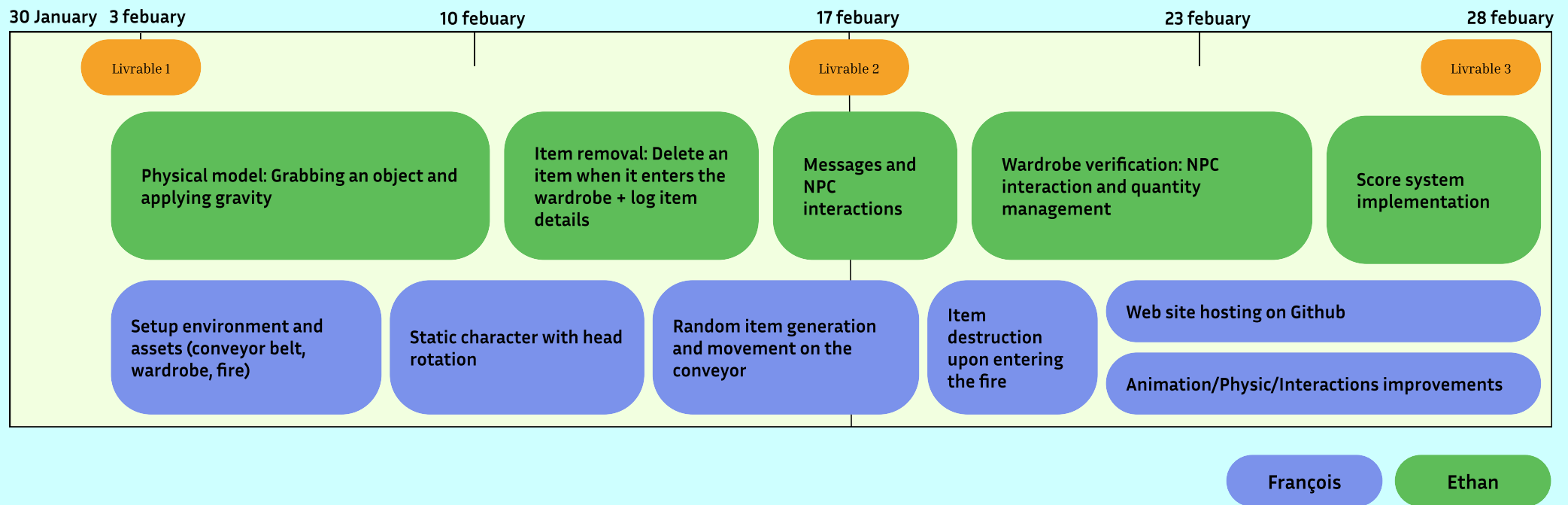- "Please give me an object that can be used in the kitchen."

The player must quickly process the request, identify the correct object on the conveyor, grab it, and deliver it to the appropriate NPC. Multiple NPCs will make simultaneous requests, increasing the challenge. The game encourages fast thinking and comprehension, reinforcing vocabulary and object recognition in a fun, high-pressure environment.

Interactions & Engagement

- Object Manipulation: Players physically grab objects from the conveyor before they disappear.
- NPC Requests: NPCs dynamically generate requests, requiring the player to quickly process and understand the English descriptions.
- Time Pressure: Objects are constantly moving, and if too many are lost, the player fails the level.
- Progression System: Increasing difficulty with more complex vocabulary and multiple NPCs asking for different items at the same time.

This game is designed to make language learning immersive and interactive, pushing players to think and act quickly while reinforcing their understanding of English vocabulary in a fun and engaging way.

Schedule

| 30 January | 3 febuary | 10 febuary | 17 febuary | 23 febuary | 28 febuary |

Livrable 1 Livrable 2 Livrable 3

Physical model: Grabbing an object and applying gravity

Item removal: Delete an item when it enters the wardrobe + log item details

Messages and NPC interactions

Wardrobe verification: NPC interaction and quantity management

Score system implementation

Setup environment and assets (conveyor belt, wardrobe, fire)

Static character with head rotation

Random item generation and movement on the conveyor

Item destruction upon entering the fire

Web site hosting on Github

Animation/Physic/Interactions improvements

François   Ethan

Github

https://github.com/Atyllion/Sae-4.02