Super Size Hero

An immersive VR experience

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Figure 1: Poster of the VR-Game.

ABSTRACT

Supersizehero is an immerse VR game for HTC Vive which puts the player in the role of an overweight hero trying to save the day. A special crafted, tracked fat suit allowing the player to actively use his belly serves as the main gameplay mechanic. The game is highscore based - each round the player needs to prevent a prison breakout or bank robbing by bouncing fleeing prisoners back into the prison, interrupt bank robbers and bring money back to the bank in order to gain as much points as possible in the given round. At the start of every level the player can choose one of three suits - each grants special abilities and a unique playstyle.

CCS CONCEPTS

• **Human-centered computing** → **Interaction devices**; • **Computing methodologies** → **Virtual reality**.

KEYWORDS

3D interaction, Virtual and augmented reality

1 SUPER SIZE HERO

Super Size Hero is an immersive virtual reality game for the HTC Vive which aims to put the player into the role of an overweight superhero trying to save the day.

Integral part of the experience is a specially crafted, superhero themed "fatsuit" which will track the belly movement of the player, allowing for immersive gameplay interactions and pseudo-haptical feedback.

The core gameplay loop is highscore-based and requires the player to collect as many points as possible each round.

Points can be accumulated by performing gameplay actions to the given scenario, for example using the players belly in order to bounce fleeing prisoners back into the prison or to interrupt bank robbers. At the start of every level the player can choose one of three suits - each grants special abilities and a unique playstyle which adds replay value to the experience.

To take the idea of cross-media even further, the game is accompanied by a series of three trailers which serve as advertisement for the game and challenge the player to try to do better than the protagonist of each clip.

The experience is not intended for home users, but rather as a unique, static experience which can only be experienced in its completion at certain events such as Gamescom or SIGGRAPH Asia and is more of a full "event" instead of just a simple game.

The overall playtime per person including suiting the player up is around 5 minutes per round.

On the technical side the experience is set up mostly with available consumer hardware.

The Game is running on Unreal Engine 4 in combination with HTC Vive and the default controllers. Additionally, the belly movement is tracked through a default HTC Vive tracker.

At the core of the experience is our custom made fatsuit which mimics the virtual belly in terms of size, shape and movement and therefore provides an enhanced feeling of immersion and unique gameplay challenges.

Simple tasks such as picking up bags of money suddenly becomes a challenge, while the increased belly size also offers the possibility of bouncing objects, which becomes the main tool for stopping and capturing prisoners.

Having fluent movement which does not break immersion is still a challenge in VR games.

We explicitly wanted to stay away from using the well-known method of teleportation as it counters the whole concept of challenging the players movement through the fatsuit. Instead, we are trying to mimicing to the natural movement of running/jogging.

To move, the player has to swing his arms up and down, similar to the movement done when running. The faster the swinging is done, the faster the ingame movement is.

This also adds an element of "real" exhaustion when running very fast, naturally balancing the game. Combined with the roomscale tracking of the HTC vive for body rotation and smaller movements this makes navigating the games levels much more natural and fluid than standard methods such as the use of default controllers or teleportation while still being accessible without the need for additional hardware.

Choosing the popular topic of "superheroes" as our main theme and having stylized, cartoony graphics as well as a detailed tutorial ingame makes our experience accessible for almost all age groups, ranging from children to adults.

From the moment the player is suiting up in the real fatsuit, from going into VR and trying to compete for the highscore to taking photos with the superhero- fatsuit and sharing them with their friends, Supersizehero provides a unique experience.