See: [Top 15 Best VR Fitness Games For A Total Body Workout](https://www.vrfitnessinsider.com/top-15-best-vr-fitness-games-total-body-workout/)

Game Idea 1: Runner

**Gameplay:** Runner type game where Player has to make it to the end of the level while avoiding obstacles. Player would have to jog on the spot, with jogging arm motions, to move the character forward and a variety of other actions to either avoid or destroy obstacles, as well as make new roads for them to run. More and more actions have to be completed as the difficulty rises.

|  |  |
| --- | --- |
| Actions IRL | Possible Obstacles |
| Jumping | * Something on the floor * Lack of flooring * Liquid Spill |
| Punching Forward | * Breaking fragile objects * Enemy |
| Swiping Sideways | * Cutting vines * Swatting flies (small flying enemies) |
| Pulling motions (up to down) | * A rope < can be used to trigger things or used to advance upwards in multi level maps |
| Throwing | * Tossing bombs for bigger rocks * Tossing a rock to hit a switch |
|  |  |

**Pros:** A lot of existing inspiration

**Cons:** Motion sickness

**Similar games:** temple run / subway surfer /[sprint vector VR](https://store.steampowered.com/app/590690/Sprint_Vector/)

### Game Idea 2: Delivery Santa

**Scenario:** You are Santa and your sled starts to fall apart while you’re delivering presents. You have to maintain fixing up the sled by grabbing the parts falling off to fix up the sled. And at the same time still deliver presents to good children and coal to bad children. Other obstacles await Santa in the sky, which need his attention or they all plummet to the ground. Can Santa complete the list in time before his sled falls apart?

**Gameplay:** Players have to manage the condition of the flying sled by *collecting parts* falling off the sled and then doing simple tasks to *fix them back*. At the same time, the Player has to *deliver presents* to children by tossing them into chimneys of passing houses.

**Collect parts:** Player has to grab a net or hook, and throw hooks at far away parts and pull them back or swipe a bunch of parts using the net. Parts go straight into Player’s hands which they can choose to drop on the sled for later use or use immediately to fix up the sled. Player can only hold one part at a time, extra parts spawn on the sled.

**Fixing the sled:** Player has to do exaggerated moments such as swiping glue (hand just moving everywhere in zigzag), applying duct tape (both hands stretch in outwards motion) or hammering in broken parts (hammering motions).

Sled has a simple health bar which depletes over time and can be increased by fixing.

**Delivering presents:** Player has to grab from the present pile or coal pile and toss them into chimneys. Color of chimney may be used to identify good or bad children.

**Possible Additions:**

**Movement:** Tug reins of the reindeer to accelerate/turn.

**Delivering presents:** Player may have to read from a list and remember children's names and whether they were naughty or nice. Their names will be displayed on/above chimneys.

**Pros:**

* Having the sled repair can reduce motion sickness as it is a break from moving in VR. It is also viable to have the game done in mostly 3rd person view.
* The time pressure and the variety of actions make for a well-rounded upper body workout

**Cons:** Figuring out how to balance the game design with all the different aspects could be challenging.

### Game Idea 3: Exercise games

A collection of exercise games ranging from plain single player exercises to multiplayer interactive exercise games.

**Actions:**

* Stretching poses < warm up
* Squats
* Jumping jacks
* Crunches
* Buddha claps
* Boxing
* Basic dance moves. <http://dance-virtual.com/go/the-future-of-dance/>

There can be multiplayer game rooms such as

* Tic tac toe but different positions on the boards correspond to different exercises (randomly generated each game)
* Connect 4 but each column is a different exercise (also randomly generated)
* Boxing each other
* Dance off

In the single player mode, we can have the player follow on-screen pictorial/video instructions. Or have a visible collision box to reach for.

There could be weekly/monthly leaderboards with in-game rewards given to the top *x* players in each action/category.

**Possible Additions:**

* Posing < like those variety shows where you need to fit into a wall
* Planks (but without rewards because cheating is hard to detect)
* Taichi
* More game modes
* Tracking which muscle groups have been used in one sitting and recommending a set of cool down stretches/exercises based on what has been done

**Pros:**

* No motion sickness
* Can add features incrementally; minimum viable product should be easy™ to make.

**Cons:**

* Actions with too much movement may be uncomfortable wearing the VR set on their head.
* Movement detection could be troublesome < we can include hitboxes to detect if they moved the correct handset to that area.

### Game Idea 4: Prof Fights 2020

**Scenario:** One fine day, after techno edge and the terrace both closed down, the professors are starved and angry, and a demon made them evil. < tentative

Hence, the Player has to defeat professors and their minions in LTs and Labs. Where the professor is similar to a boss and only appears after his or her minions have been defeated.

**Gameplay:** The fighting area is the full 360 circle from the players position in the middle, so enemies may spawn behind the player. The Player would then have to find methods, by any means, to knockout all minions and the professor to win.

**Features:**

* Each professor boss can have their own special skills, which relates to their field of study.
* Defeated professors join the Player and the Players can choose to use the professors’ skills.
* Difficulty scales with the modules the professor teaches: 1k mods (easy) - 4/5k mods (very hard)
* In-game currency can be used to purchase special DLC content/characters and equipment and stat-boosting foods.

**Similar Games:** Gorn / Literally every VR fighting game

**Pros:**

* Little/no motion sickness depending on implementation

**Cons:**

* Might require a lot of 3d modelling and animating
* For the complete experience we would also need voice samples from included profs

GAME IDEAS

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| --- | --- | --- | --- |
| Sport / game | How is fitness involved | How can behaviour be changed | Pros / Cons |
| Boxing | On small scale, arm movement. Depending on implementation could move around too | People may have pent-up frustration that can only be relieved through violence.  By channeling their frustration into a virtual face, no one gets hurt and no one goes to jail | Pros:   * Less likely to have issue of only exercising dominant arm   Cons:   * Overdone in VR, may not be unique enough * Hard to extend to multiplayer due to VR interaction limitations |
| TT | Depends on preferred intensity of player; could be a great cardiovascular workout | Could get people into playing the sport more actively, since it is hard in Singapore to find table tennis tables and opponents IRL | Pros:   * You only need a small space to play TT * Possible to extend to multiplayer * Can be played with or without custom hardware (slapping a sensor on a pingpong bat vs using the vive controllers)   Cons:   * Only one arm in use most of/all the time * Might be tough to perfectly replicate real life TT physics. If too tough, we can create our own physics to make it seem like an entirely different game * Has already been done. <https://store.steampowered.com/app/488310/Eleven_Table_Tennis_VR/> |
| Dance | Dancing works the whole body | People who are too shy to dance when people are around can now dance alone at home. They may also choose to learn basics from this game to improve their dancing so that they are more confident dancing outside | Pros:   * A lot of possibilities as to dance moves and types of dances * Can have dance rooms where people just dance without following set moves   Cons:   * May be hard to stand out against other dance VR games * May be hard to get rights to music/to create music |
| Squash |  |  | Also done (VR Squash 2017 & Squash Kings VR) |
| Temple run but skiing | Can involve lots of ducking and some jumping to make the workout more holistic | You literally can’t ski in Singapore | Pros:   * Experience skiing! * Can have variable intensity (frequency of obstacles)   Cons:   * Unavoidable motion sickness especially if we add turning to make the game less linear |
| Posing like the game show kind | Can involve all sorts actions and jumps, yoga poses and other exercise poses may be incorporated to teach player.  - By attaching sensors on the players ankle, more advanced poses can be made. | A fun, single-player, type of sport that is otherwise hard to find/create IRL | Pros:   * Can do exercises in a fun way that would require significant space and a lot of resources to make IRL * Can extend to multiplayer where people do it side by side and can laugh at one another’s failures * Can adjust tempo and difficulty to suit the player * Can always continue to add more poses, limited by ability to track movement   Cons:   * Repeating the same few poses or game mode for too long may feel repetitive and boring |
| Dodgeball  Mvp: player plays by self with targets that also shoot balls at them | - Dynamic Visual Acuity  - Peripheral Awareness  - Depth Perception  ^bs max v nice | After graduating it is hard to find people/places to play dodgeball, hence use this to play with people anywhere with or without people | Cons: idk how we gonna get the players surface area for counting hits<https://store.steampowered.com/app/975390/Dodgeball_Simulator_VR/> |
| Interactive incremental bullet hell ball sport dodgeball/soccer/handball (see below) | - same as dodgeball, |  | Pros:   * Probably not in the market   Cons:   * Single player mode will likely require some form of AI (simplest case just random rotation and flailing about) |
|  |  |  |  |

<https://en.wikipedia.org/wiki/List_of_sports> << maybe we can look through for ideas, too damn many need to run/move a lot