VIRTUAL REALITY SICKNESS REDUCTION TOOL

This game design tool contains practical solutions to reduce the impact of VR sickness, facilitating creative decision-making in the game design process.

PERFORMANCE

- Avoid lag
- Know the target FPS of the hardware
- Optimise the game

MOVEMENT

- Consistent movement speed
- Non-aggressive acceleration
- Limit jumping and falling
- Consider teleportation movement mechanics
- Consider a sitting VR experience
- Consider stationary player mechanics — have the action move towards the player
- Avoid stairs — use smooth slopes or elevators

CAMERA

- Player always controls the camera — do not switch between perspectives
- No unnecessary camera movements — no camera shake, limit rotation, limit Y-axis movement
- Reduce field of view settings
- No motion blur post-processing — consider vignette
- Consider use of "cockpits"/ focal anchor points

DESIGN

- 80/20 design principle — 80% dark colours, 20% light colours
- Ensure graphics are not blurry — high quality, high resolution graphics
- Consider low-poly art style
- Depth simulation — position objects in virtual world to add visual depth
- Use screen fade transitions

USER-INTERFACE

- Implement virtual reality UI in world space (spatial) — diegetic or non-diegetic
- Use high resolution vector fonts

TIME

- Consider shorter levels — 10 to 15 minutes in length
- Implement a pause system

NON-TECHNICAL

- Correctly calibrate headsets and sensors
- Use appropriate peripherals
- Mimic virtual world movements in real world — running in place, dodging obstacles
- Keep hydrated and stay cool