

INTRODUCTION

1. INTRODUCTION

It is a memory game project. This memory game project is created to keep ur mind active. An essential part of how our minds are able to do so many things is our ability to remember information, stimuli, or events. Our ability to take in input, organize it, store it and then retrieve it as necessary allows us to learn new things and experience the world around us in a very positive manner. Most of us want to retain good memory and improve it if possible. This can be done by memory games. They not only improve the skills they are designed to help, but likely generalize to other cognitive abilities and have some long-lasting benefits .Memory games are an entertaining and fun way to encourage our brains to provide better focus on information and stimuli in order to properly store and then retrieve it later .If you want to remember something, if they don't put the proper focus on the information, it can be lost very quickly. So this game can help a person to learn how to put proper focus on information when necessary. If you are interested in improving your memory and optimizing your mental capacity, you should definitely try this memory game. There is no age limit for this game.

1.1 ABOUT THE PROJECT

This game is better at visual tasks like tracking objects; keeping track of several objects simultaneously; filtering out irrelevant information; switching from task to task; detecting changes in visual layouts and improves your ability to multitask .The important point is that this game can challenge your mind and brain to do new activities and stretch you up

1.2 PURPOSE OF THE DOCUMENTATION

Being able to process information rapidly is critical in many situations. To put it simply, fast decisions often lead to mistakes. Players are notorious for requiring rapid processing of sensory information, and prompt action. Indecision or delays in response are often severely penalized. Players are therefore highly motivated to reduce their reaction time. A lot of the play consists of failing to reach a goal. This encourages persistence and grit, the ability to stick with a problem and see it through without getting demoralized and giving up

- Improve concentration
- Train visual memory

- Increase short term memory
- Increase attention to detail
- Improve the ability to find similarities and differences in objects
- Help to classify objects that are grouped by similar traits
- Improve vocabulary

1.3 SCOPE OF THE PROJECT

- Enhance mental fitness and prevent age-related memory decline
- Who trained their brain were able to improve their auditory information processing speed by about 58 percent
- Greater self-confidence
- Computer games increase your problem solving skills * enhance mental fitness and prevent age-related memory decline
- Who trained their brain were able to improve their auditory information processing speed by about 58 percent
- Greater self-confidence
- Computer games increase your problem solving skills

SYSTEM ANALYSIS

2. SYSTEM ANALYSIS

Aimed at improving the design process of machine tools using virtual reality (VR) and augmented reality (AR) systems, the Institute for Machine Tools and Production Processes (IWP) of Chemnitz University of Technology has developed new visualization methods for studying finite elements analysis (FEA) results in immersive environments along with a mobile AR system. The Institute's major goal on the software side was visualizing the direction and gradient of stress using 3D glyphs.

2.1 EXISTING SYSTEM

Virtual Reality and Augmented Reality Analysis Canals' Virtual Reality and Augmented Reality Analysis is a research service that provides qualitative and quantitative insight into the virtual reality (VR) and augmented reality (AR) markets. It features ongoing analysis on product and technology trends, vendors strategies and go-to-market models; and the VR and AR ecosystem for hardware and software vendors, channel partners and content providers.

2.2 PROPOSED SYSTEM

Augmented reality is growing rapidly and supports people in different fields. However, because of the broad meaning for this term, it is not exactly clear what is meant or intended when people use AR. Some of the sources use a very general meaning for it, whereas others mean something very specific and narrow. Putting different papers together, it gradually becomes clear to identify the whole map of AR architecture applied to any AR experience. This section introduces the six elements of augmented reality including user, interaction, device, virtual content, tracking and real content, in order to create the boundary of AR and ascertain the options available in the use of AR for particular activities. Hopefully, the AR architecture comprised by six elements could serve as to innovate and develop the actual AR application. The elements of AR have been followed by a brief summary of each meaning, features of each and detailed explanation including examples.

SYSTEM REQUIREMENTS

3. SYSTEM REQUIREMENTS

The reason for these serious specs is simple: Virtual reality requires a high frame rate for the motion within a virtual space to feel natural. Smooth movement is necessary to prevent simulation sickness, which makes people get headaches, dizzy, or even nauseous. Most video games run at 30 frames per second, like television. Some games use 60 frames per second for even more fluid visuals. Oculus makes virtual objects feel almost tangible by upping the frame rate to 90 frames per second. And because they're creating 3-D worlds, VR headsets render a separate picture for each eye, requiring even more processing power.

3.1 TECHNICAL REQUIREMENTS

If you believe that the requirement is substantially met but in a way that appears to be different from the descriptive statement, please explain the difference.

- If the requirement is not provided as part of the base system but you propose to deliver it as a customization, please describe the customization required and include costs associated within the customization in your proposals cost schedule.
- If you take exception to a requirement, please state the exception, its reason, and propose an alternative approach and solution.



Fig No: 3.1 V R BOX

3.2 SYSTEM SPECIFICATION

If you're not an early adopter or serious gamer, don't get too excited over the breakthrough VR headset—yet.

Soft Ware Requirement:

The specs it recommends for the PC that will be necessary to use Oculus Rift when the company releases its virtual-reality headset.

- Operation System: GNU Linux, Debenu.
- User Interface: HTML Web Page.
- Programming Language: Java Script, HTML, A-Frame.

Hard Ward Requirement:

- NVIDIA GTX 970 / AMD 290 equivalent or greater
- Intel i5-4590 processor equivalent or greater
- 8GB+ RAM
- Compatible HDMI 1.3 video output
- 2 USB 3.0 ports

SYSTEM DESIGN

4. SYSTEM DESIGN

It seems like every day a new, game-changing piece of technology enters our lives for good. When your mission is to improve everyday experiences, these rapid tech shifts are pretty exciting.

But they also present new and complicated challenges. With every new technology comes new skills to learn and new parameters to comprehend. And as AR and VR move out of the novelty game-play space and into mainstream use, those new skills and understandings have to come about as fast and furious as the technology itself.

Adjusting to a tech-enabled future is something most of us are doing all the time, whether we or not we realize it. But as designers, we can't afford to be so cavalier—we need to gain an understanding of how to work with these new technologies quickly so we can create meaningful user experiences that add value and minimize the potential downsides of disruption at this scale.

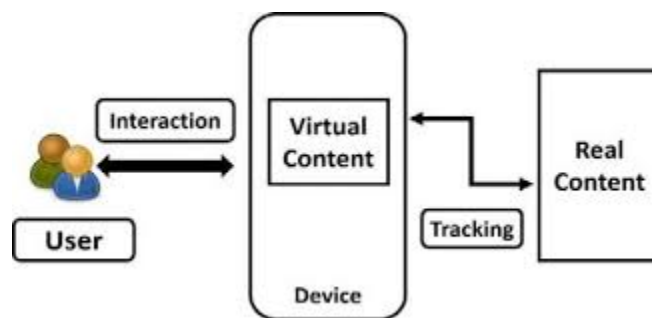


Fig No: 4.1 Augmented reality architecture comprised by six elements.

IMPLEMENTATION

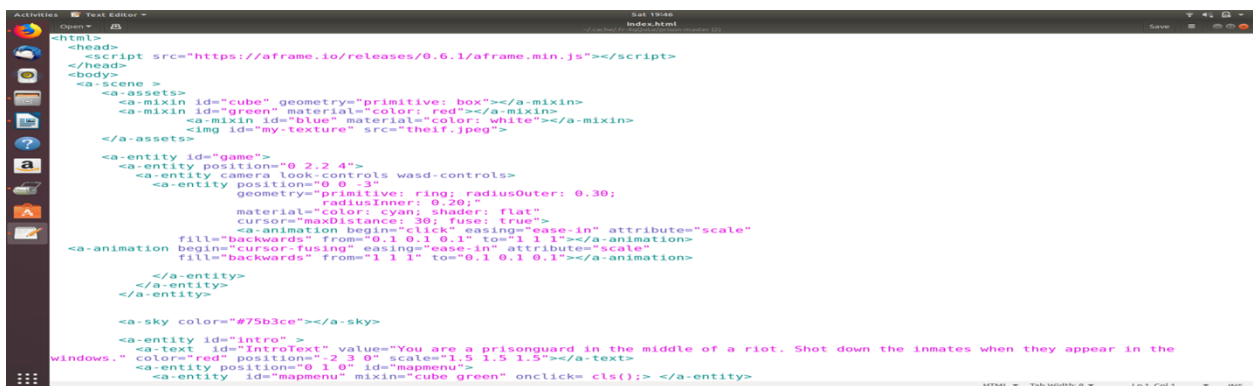
5. IMPLEMENTATION

How far has this emerging technology come so far. If you're listening to any of the hype, it sure sounds as though augmented and virtual reality are evolving rapidly and beginning to take hold in our future lives. In reality, AR/VR have been silently milling around for decades. It's as if we have been meandering along a hopelessly endless rainbow road to finally reach the pot of gold. We have our treasure, we just have to pick through it bit by bit.

5.1 MODULES

Spending an enormous amount of time researching the best AR/VR apps is not only impractical, but it's also unnecessary. I've gathered some resources to get you started for successful augmented and virtual reality implementation. In addition, I've created a module that covers the resources below on how to use these tools in depth and practical classroom application.

HTML

A screenshot of a code editor window titled 'index.html'. The code is written in HTML and uses A-Frame for VR. It includes a script tag for 'aframe.min.js'. The code defines a scene with assets (cube, green material, blue material, white material, and a texture), an entity for a game with a camera and a ring, and a sky. It also includes a text entity for an intro and a map menu entity.

```
<html>
<head>
<script src="https://aframe.io/releases/0.6.1/aframe.min.js"></script>
</head>
<body>
<a-scene>
<a-assets>
<a-mixin id="cube" geometry="primitive: box"></a-mixin>
<a-mixin id="green" material="color: red"></a-mixin>
<a-mixin id="blue" material="color: white"></a-mixin>

</a-assets>
<a-entity id="game">
<a-entity position="0 2.2 4">
<a-entity camera look-controls wasd-controls>
<a-entity position="0 0 -3">
geometry="primitive: ring; radiusOuter: 0.30;
radiusInner: 0.20;"
material="color: cyan; shader: flat"
cursor="maxDistance: 30; fuse: true">
<a-animation begin="click" easing="ease-in" attribute="scale"
fill="backwards" from="0.1 0.1 0.1" to="1 1 1"></a-animation>
<a-animation begin="cursor-fusing" easing="ease-in" attribute="scale"
fill="backwards" from="1 1 1" to="0.1 0.1 0.1"></a-animation>
</a-entity>
</a-entity>
</a-entity>
<a-sky color="#75b3ce"></a-sky>
<a-entity id="intro">
<a-text id="IntroText" value="You are a prisonguard in the middle of a riot. Shot down the inmates when they appear in the
windows." color="red" position="-2 3 0" scale="1.5 1.5 1.5"></a-text>
<a-entity position="0 1 0" id="mapmenu">
<a-entity id="mapmenu" mixin="cube green" onclick="cls();> </a-entity>
```

SYSTEM TESTING

6. SYSTEM TESTING

VR and AR (virtual and augmented reality) applications are emerging with world leading smart device companies carrying the torch. This just might be the next big game changer since the touch screen.



VR and AR performance is about achieving presence. Ultimate presence means that the user is immersed into the virtual reality, and is genuinely enjoying the experience. Poor VR and AR performance affects the viewing experience, and can even cause motion sickness and nausea. It is very hard to achieve presence if system latencies are poor, and failing to achieve any one single factor is enough to ruin the whole experience.

SCREENS

7. SCREENS

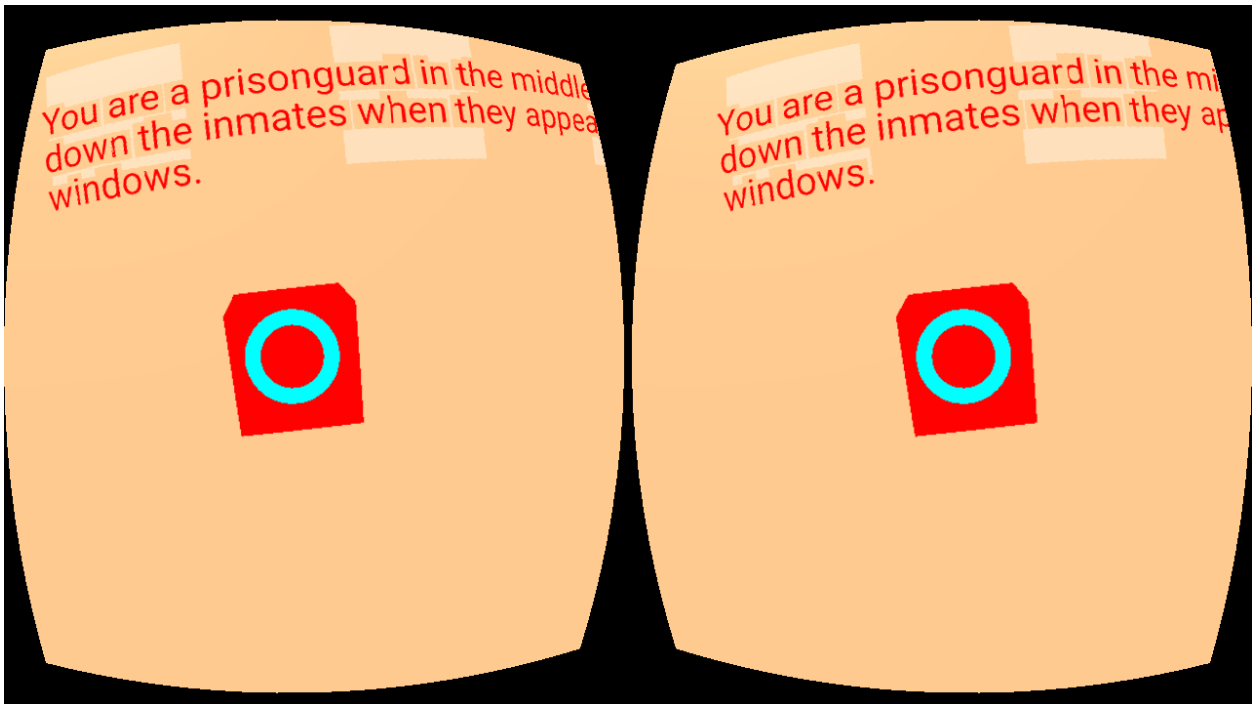


Fig.7.1 You are a prisonguard in the middle of a riot. Shutdown the inmates when they appear in the windows.

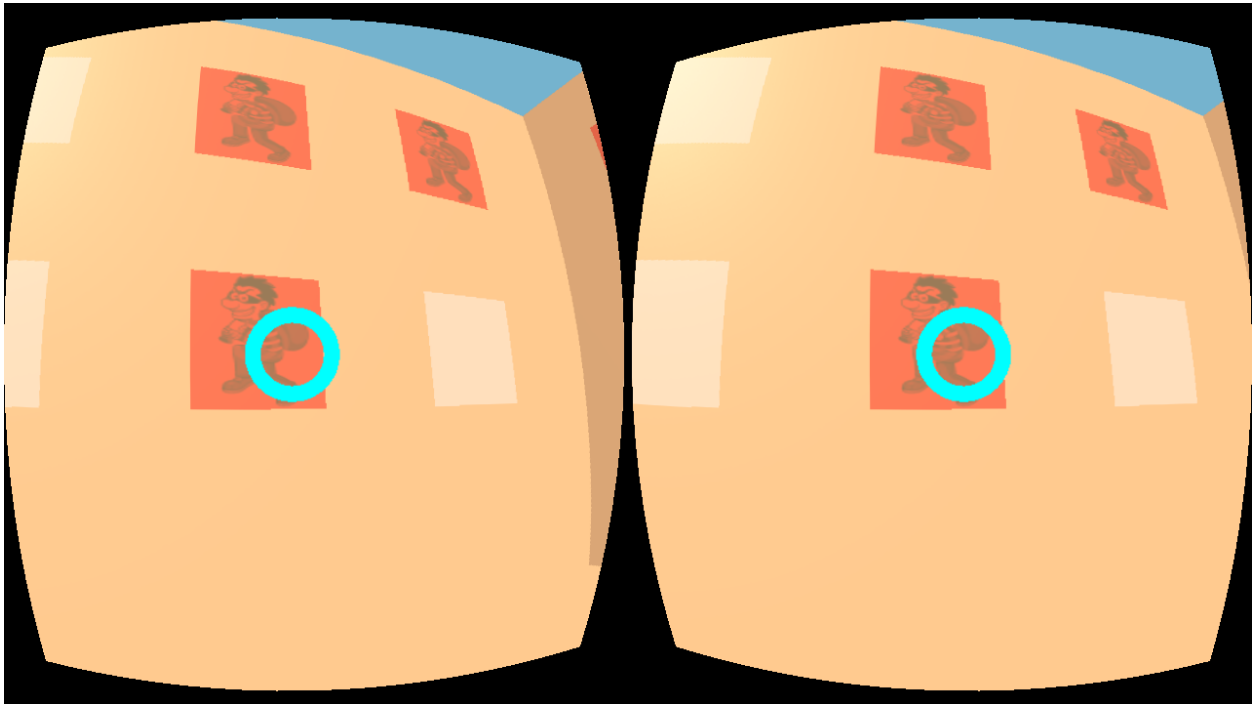


Fig.7.2 You check where the thief is hidden those windows.



Fig.7.3 At the end of time how many thieves you have left.

CONCLUSION

8. CONCLUSION

Today, we are here to bring you an innovative VR startup Virtual Rehab which plans to use VR as a disruptive means to reduce the number of thieves' who are trying to escape from the prison by shooting.

We will be in the virtual feel of being surrounded by the walls in which prisoners are captured. When they try to escape from the prison we will be shooting them by aiming the pointer at them.

REFERENCES

- <https://www.wikipedia.org/>
- <https://github.com/leereilly/games#user-content-puzzle>
- https://developer.mozilla.org/en-US/docs/Web/Demos_of_open_web_technologies