

**CART 353 – Rilla Khaled**

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**50 Ideas**

- 1) Interactive visualizations of a waterfall in which its flow can be controlled and distorted with the movement of one's hand with the help of a Kinect.
- 2) Poem generated visualization that displays random snippets of words heard in an elevator.
- 3) Sound light object that glows and emits nice calming wavy sounds depending on how far one is from it. The closer you are the more sounds it does and the more it lights up, the farther you are the more the object quiets down both by sound and visually.
- 4) A long line of frequency waves in which each complete wave (ex: one sin wave) can be altered (brought up or down) in order to create different kinds of sound, creating a long line of various sounds at the end once the waves are played all together.
- 5) A maze game in which the user creates the path to the end by matching the right sound to the desired path line. It is a way for one to familiarize with music tones at the same time as improving one's memory.
- 6) A visualization of tiny bright stars on a black background that move to the rhythm of the various sounds in the room. They each act differently depending to the sound they hear.
- 7) Laser type line-shaped lights that are found on the screen, in which the user has the ability to control only one at first and then can connect it to the ends of one of the others, expecting a different reaction to occur for each line "connection" that is made. Reactions can vary from sounds, to the creation of other particular lines, to shapes, etc.
- 8) A drawing game with the purpose of teaching the user about symmetry. The user can draw something and has the option to replicate it any number of times, horizontally up or down, or vertically left or right. This game would even give one the chance to create their own mandala.
- 9) A screen designed to look like a water surface made out of miniscule specs of shiny dots that move and swirl only when a hard light hits them. They are attracted to the light and follow it. The interaction would be the user holding the light and moving the dots in whichever direction he or she wants.
- 10) An audio reactive landscape (on screen) that keeps growing vertically and creating new shapes, colors, forms, and reactions with the tone and beat of the music.
- 11) A sand surface (on screen) in which every sand particle moves up and down to the beat of a drum, or music, creating a 3D looking vortex similar to a tornado, or other effects depending on the intensity of the beat.
- 12) A glowing light hand (on screen) that its movement can be controlled through the user's real hand with the help of a sensor glove. This light hand is able to draw and glow.
- 13) A lightshow created by the user on screen that is distorted and modified by putting barriers through it, making the light path deform and creating a unique light piece at the end.

- 14) A 3D squishy square model in which its body can be warped and distorted by the user with the help of laptop keys in order to create a new, completely different form, shape or thing. Similar to play-doh concept.
- 15) A wall of rectangles (on screen) all placed tightly next to each other displaying each a country and that country's most famous pictures. Some glow from time to time. The intention is to show people a glimpse of that country through images. It is a way of getting to know the world visually and quickly.
- 16) A painting created by the user that starts with a blank canvas on the screen and every time he/she presses enter, a new image pops up and the user can place it wherever they want by using the arrow keys.
- 17) A VR experience that surrounds the user with an environment where gravity no longer exists, everything floats, fluids, foods, etc. It creates an experience similar to what astronauts live when they leave Earth.
- 18) A visualization of a 3D empty glass square that has light beams emitting in it with mirrors in it that create interesting reflections in the inside. The user can tweak the mirrors and their shape.
- 19) A web app that takes a picture of your face and displays it with the help of dots only, and gives the user the ability to create something else with the exact number of dots.
- 20) A constant on-screen canvas of a beautiful tree that changes over time, very slowly, depending on the temperature outside. You will see it bloom with leaves and branches during summer, every day it will grow a bit, then when it starts to get cold in your location, the tree will start to lose its leaves. It would act as a real tree would except it would be digital and on the user's screen.
- 21) A visualization of what texture each letter is associated with, by having the user press on a letter on their keyboard and it would appear big on screen, with a certain texture covering it.
- 22) A continuous black hole in which the user has to get out by responding to mathematical equations in a certain amount of time. This would be good for those who want to practice math problems and rapidity.
- 23) A drawing experience where the user is asked to draw small lines of any shape or form, and the program uses those lines and places them in a way to create an image.
- 24) A particle system made boom box that lets the user create noises with the help of keys, and reacts by creating a colored sound wave on the screen. At the end, the user is left with a colorful canvas created by the key they pressed.
- 25) A grid background made out of squares where only certain squares are clickable, and when clicked they display a piece of an image that takes up the whole grid. The user has to guess what the image is with only a few pieces of the puzzle.
- 26) Projections of crystal-like shapes made with processing that move when there is movement in the room and stay still when everyone is still.
- 27) The text of a book that display on the screen scrolling up and making only the important words glow and grow in order to shorten sentences for the user while still giving them the sufficient amounts of words to understand the text in a quicker way. The user takes a break by pressing space on the keyboard.

- 28) A game where bubbles display and the user has to pop only the bubbles of the specific color indicated on the screen. The color changes very quickly therefore the user has to be quick.
- 29) A program made for graphic designers that asks the user for a color as input and displays the shades similar and associated with that color, as well as different texture to put it on. This helps designers visualize what color they want exactly and how it would look like on certain textures without having to google it.
- 30) A 3D ball made out of lines with empty space inside in which every line is associated with a light in the house (ex: the user's house). The line lights up in a very beautiful sparkly way whenever the house light it is associated to is OFF. This is a way of reducing electricity waste in a way that gives the user something back.
- 31) A game that practices the user's drawing skills by asking them to draw specific objects. The program verifies if the drawing makes sense and is good enough to pass on to the next level, where the drawings get harder.
- 32) A game for the user to create their own unique pattern for their desktop for example. They need to select the shape, or create a form they want, then they choose if its color, its depth, its size, and how they will all connect with one another (diagonally, side by side, etc.).
- 33) A visualization of a poem that is transformed into a plant, that blooms into a flower. The more poems the user enters, the more their garden grows.
- 34) A dynamic game that requires the user to create their own creative objects out of little sand particles. In this game, the sand particles have the ability to hold still.
- 35) A visualization of the user's computer images displayed on their screen in line art formed, meaning only made out of horizontal white lines on a black background. This gives a twist to the user's original pictures.
- 36) A digital musical instrument in which each letter on the keyboard emits a sound (drum, saxophone, piano, etc.) when the key is pressed. A quick abstract image is displayed on the screen when a key is pressed. The user can hit a record button to record their sounds all together.
- 37) A digital floor installation that displays the aerial view of a beautiful destination in the world. This gives the user the feeling of walking "on top of the world", while looking at these amazing places.
- 38) A light show installation where the direction of the light is controlled by the movement detected of the people walking by.
- 39) A visualization of a small human-like body reacting to movements and sounds, all in a passive and calm way. This is to show the 9 month process of a baby in their mother's womb. It would show the small body in a fluid background, floating around, becoming aware, growing. It would be a very peaceful experience for the user to watch.
- 40) A grey cloudy polluted puffy surface (on screen) that can only be reduced by having the user write 15 ways to be more eco-friendly.
- 41) An interactive hairy digital floor (design hair looking particles) that distorts and move when a user steps on it. Each movement has a specific consequence and moves a certain way.

- 42) A line art interactive screen where lines start sliding down and up, each at a different speed, where the user can decide to deviate them, make them go faster, etc.
- 43) A visualization of the world map on a wall where each country glows up and expands when the user calls its name. It expands in order to display information about the country.
- 44) A program that scans the outline of the user's body and matches desired clothes with it. This would be an easier way to shop online without having to worry about the clothes not fitting.
- 45) An interactive display that takes as input the user's theme for his or her business, and matches it with potential logos or designs.
- 46) A program connected to the user's plants in the house that uses screen display to show information about the needs of each plant, in order to make sure they are surviving well. It would inform the user on how to take good care of them.
- 47) Lighting theme specifically made for your house (does projection based on theme inputted by user in the program). The different lights would be pre-programmed already.
- 48) A paint splash game where the user can splash different colored paint blobs together in order to see the output of the colors. This would be to show the user the combination of color obtained before actually doing it in real life. This would be more for painters.
- 49) A game where the path to get to the end of the game is made out of mirrors only, making it difficult for the user to find their way. They need to have a sharp eye and look for the mirror that blinks less times than the others to know which path to take.
- 50) A make-your-own sculpture creator that lets users select what shapes they need and in what format and size, in order to put it together, simulating a real-life installation.