**VR Kitchen User Guide:**

Caleb Atkins, 4/27/22

**Project Overview**

VR Kitchen is a virtual kitchen environment, created for Union University’s EDGE program. The project intends to give its user’s an introduction to the basics of virtual reality, as well as an educational cooking experience. Player’s can fully interact with the kitchen space – open cabinets and drawers, interact with the stove, set the table, etc. The “goal” within VR kitchen is to make tomato soup. Players will find the recipe for tomato soup on the UI menu hovering near the pantry. By following the recipe instructions, players will eventually complete the recipe – indicated by the UI menu turning green. Beyond following the recipe, players should feel free to explore the environment and experiment with the various features therein.

**How to Run VR Kitchen**

VR Kitchen is built for the Oculus Quest 2. The following instructions assume that you have already built the project and installed it onto your Quest 2. For instructions on how to do these things, see the section titled Build and Installation Instructions.

* Put on your Oculus Quest 2
* Within the home environment, navigate to the Applications panel on the sidebar
* From the dropdown menu on the top right, select “Unknown Sources”
* Select “VR Kitchen” from the list of applications

**Build and Installation Instructions**

* Within the Unity Editor, go to File → Build Settings
* Select Build and select a location on your computer to store the .apk file
* Download and install Android Debug Bridge (adb) to your machine
* Plug your Oculus Quest 2 in to your machine using an Oculus Link cable
* Within the command line, navigate to C:\Users\[user]\Desktop\platform-tools
* In the command line, type “adb devices” and press enter
  + You should see your Oculus Quest 2 listed
* Type the following command: adb install [path to your .apk build file]

**Feature Backlog**

* Physical VR hands
  + Implement two-point contact in object interactions
* Spilling pots / pans
  + Find a liquid physics library to replace water physics
* UI system that follows players around the kitchen
* Collision boxes to prevent players from leaving kitchen area
* Recipe backtracking (removing ingredients sets the recipe back)
* Recipe selection
* Asset normalization
  + Consistent art style, consistent lighting, etc.
* Create an outdoors environment beyond the window

**Bugfix Backlog**

* Players fall through the floor at certain points in the kitchen
* Players start at different areas in the kitchen and glitch if they move around in real space as the game loads
  + Normalize a spawn point
* Particle physics do not follow the rule Speed = Distance / Time → Why is this?