

THE RIGHT TOOLS FOR THE JOB



With construction work comes the tools for building, so here are some of the tools we needed to create for this project.

- Hammer – Used to nail together studs
- Nail – Used by nail to connect studs in our structure groups
- Nail Gun – Spawns a nail directly into a structure group. Much easier than a hammer and nail
- Ruler Tape – Measure the distance between two objects
- Chalk Line – Create a straight line on studs for cutting purposes
- Pencil – Draw out lines to cut by hand
- Clamp – Works the same way as the nail just removable
- Saws – Cuts studs in half no matter if they are on their own or in a structure group

CONSTRUCTING A NEW WAY TO LEARN

Construction workers don't need to start work blind. With VR training systems, they can have the muscle memory before ever setting foot on site.



THE FRAME OF THE PROGRAM

Our virtual reality program is built for construction workers to learn how to build a wooden light frame wall. Inside of the Oculus Quest, the user can do one of two things:

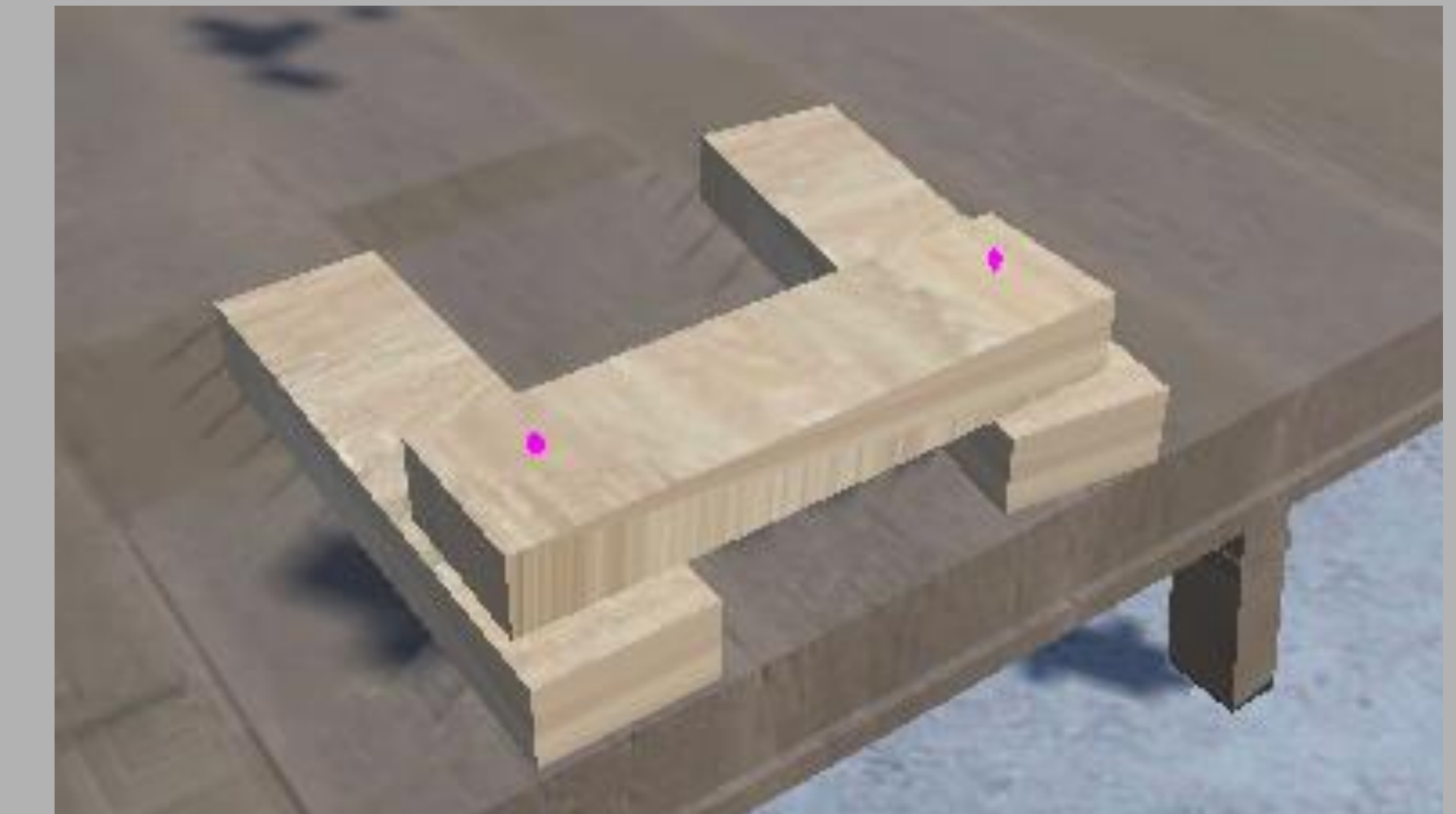
- Animations! This is where we will write about watching objects move to show you how to build a wooden light frame wall!
- Sandbox! This is where we will actually write about the sandbox itself and how the user can build within it!

LEARNING TO BUILD THE WALL

We have created a 4 part tutorial segment for user to learn how to build walls.

1. How to Use a Virtual Reality Program
2. Wall Layout
3. Wall Framing
4. Wall Sheathing

STRUCTURE GROUPS



- When objects are nailed together they are added into a structure groups and are treated in the program as a single object.
- Structure groups are the heart of our tools and are designed to be malleable to all of the tools.
- If a new stud is added to the above wood, a new structure group is created, the objects are moved over to it, and this one is destroyed.
- If you interact with the structure group with the saw, 2 structure groups are created from it.

OUR TEAM



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