Appendix H: Instructions for Construction

These instructions are intended for people with knowledge of how to use bandsaws, orbit sanders, drills, and handheld routers. The total process takes approximately 10 hours of assembly in addition to the drying times of the flex seal on top of the fiberboard. Exercise caution when operating any of the tools in a machine shop, obtain the appropriate training before use, and be supervised if necessary.

The following table lists all materials to build the Number Nesting Blocks.

Table 1: Materials Used for Construction

Material	**Quantity**
Flex Seal (enough to cover 2 x 4 x ¾ thick m^2 in 2 light coats)	1
Rubber Edge Seals (5 ft, angle of 15^o)	2
Medium Density Fiberboard (0.75‘’x 24’’ x 5’)	2

Note: See Bill of Materials in Appendix C for cost details and specific material terminology.

The following tools are required to construct the two sided shower ramp.

- Bandsaw (1/16’’ blade, make sure to account for loss of material due to blade tolerances)
- Orbital sander
- 120 Grit Sandpaper
- Paintbrush
- Wood Glue
- Manual Staple Gun

The following procedure should be followed for construction.

1. Using a bandsaw, cut the medium density fiberboard (MDF) to the specified lengths required for the project. Ensure precision in measurements and cuts for optimal fit and finish.

2. Sand the edges of the fiberboard using an orbital sander equipped with 120 grit sandpaper. If using a router, sand the edges to achieve a radius of approximately 0.1''. This will smooth out any roughness and prepare the surface for sealing.

3. Apply a generous amount of wood glue (either Titebond or Gorilla Glue) to the areas of the fiberboard that will be adhered to another piece of wood. Ensure even coverage to form a strong bond

4. For each side of the thick notches, apply a light coat of Flex Seal using a foam paintbrush or a cotton cloth. Wipe down any excess finish to avoid drips. Be careful to leave the sections where the rubber flange attaches to the ramps uncovered. Wait at least 12 hours (or recommended type by manufacturer), for the flex seal to dry.

5. Apply three additional light coats of Flex Seal using the same method described in Step 4. This will provide adequate protection and ensure water resistance.

6. Using a manual staple gun, staple the rubber flange to the outer and inner ramp at the respective ledges. Use stainless steel staples to prevent corrosion over time. The staples should penetrate the fiberboard to a depth of at least 0.25 inches. Test on an unused piece of fiberboard first to ensure proper depth and hold.

7. Reapply Flex Seal to the thick notches once every few months to maintain the integrity of the wood and ensure long-lasting durability.