Nick Mang

Wobble Boards

These balance boards were used for interactive demonstration and use during the presentation at UNC Wellness Center at Northwest Cary. The student plans to use these balance boards for future presentations and in the clinic for those undergoing ankle injury rehabilitation.

Materials Used:

- Jigsaw
- Miter Saw
- Electric Drill
- Drill Bits
- Coarse and Fine Sandpaper
- Polyurethane (3 coats)
- Disposable Paint Brush
- Pencil
- Protective Eyewear
- Ear Plugs
- Wood Clamps x 2
- Saw horse x 2
- 22-inch and 16-inch circle cardboard template
- Cardboard
- 3/4-inch Plywood
- Coupling x 2

- Hanger Bolt (Coach Bolt) x 2

- Ball Post (cut in half [different sizes]) x 2

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- J-B WELD Epoxy®

- Grip Tape

Final Products:

Process:

Discs:

A 22-inch and a 16-inch disc were traced on a piece of plywood using cardboard templates. A jigsaw is used to make the circular cuts and the intricate handles. A hole is drilled at the center axis of each disc, just large enough to encompass a threaded coupling. The couplings are inserted into the drilled holes and held in place with epoxy (epoxy takes ~14 hours to dry). The wood is sanded with sandpaper, progressing from coarse to fine sandpaper. An even coat of polyurethane is applied to all surfaces of the discs using a disposable paintbrush. After the polyurethane has dried, it is sanded with fine sandpaper. The process is repeated two more times to reveal a smooth wood finish. Grip tape is applied to the top surface of the balance discs in order to create a non-slip surface.

Hemispheres:

The hemispheres are cut from two different-sized ball posts using a miter saw. The center axis is drilled ¾ of the way through with a drill bit slightly smaller than the diameter of the hanger bolt. The wood-screw portion of the hanger bolt is screwed into the hemisphere, leaving the metal-bolt portion of the hanger bolt exposed so that it may screw into the coupling on the underside of the disc.