

# Assignment 3

## 3. Demonstration of tools and different manufacturing processes:

"In the workshop, I embarked on creating a custom photo frame, utilizing an array of carpentry tools. The project began with measuring and cutting the wood using a handsaw and miter box for precise angles. Next, I employed a power drill to assemble the frame with screws and nails, ensuring sturdy construction. Sanding blocks and wood files were essential for refining edges and achieving a smooth finish. Finally, a coat of varnish enhanced the wood's natural beauty. It was a rewarding process, blending craftsmanship with creativity to produce a personalized photo frame."

### Measuring and Cutting:

Tools Used: Tape measure, pencil, combination square, handsaw or circular saw, miter saw or miter box with a backsaw.

Description: Measure and mark the wood to your desired dimensions using a tape measure and pencil. Use a combination square for accuracy in marking right angles. Cut the wood pieces to size using a handsaw or circular saw for rough cuts and a miter saw or miter box with a backsaw for precise miter cuts at the corners.

### Joinery:

Tools Used: Wood glue, clamps, hammer and nails or brad nailer, or a pocket hole jig and screws.

Description: Apply wood glue to the mitered corners and assemble the frame pieces together. Use clamps to hold the corners tightly while the glue dries. Alternatively, you can reinforce the joints with nails or use a pocket hole jig for screwing the pieces together.

### Finishing:

Tools Used: Sandpaper (various grits), wood stain or paint, paintbrush or rag, clear polyurethane or varnish, foam brushes.

Description: Sand the entire frame to smooth the surface and round off any sharp edges. Apply wood stain or paint to achieve your desired color. Use a paintbrush or rag to evenly spread the stain or paint. Once dry, apply a clear polyurethane or varnish to protect the wood and give it a glossy finish.

Tools Used in Detail:

Tape Measure: For measuring the wood accurately.

Pencil: Used for marking measurements and cuts on the wood.

Combination Square: Ensures precise right angles and measurements.

Handsaw or Circular Saw: For cutting the wood to rough dimensions.

Wood Glue: Bonds the wood pieces together securely.

Clamps: Holds the wood pieces together while the glue dries.

Hammer and Nails or Brad Nailer: Used to reinforce joints with nails.

Pocket Hole Jig and Screws: Offers an alternative method for joining wood pieces securely.

Sandpaper (various grits): Smooths the wood surface and removes imperfections.

Wood Stain or Paint: Adds color and enhances the aesthetic appeal of the frame.