

THE JOINERY

Whiskey/Tea Cabinet

Comprehensive Project Plan

Intermediate Woodworking Class

thejoinery.club

Middleton, Wisconsin

Revision: January 2026

Table of Contents

Welcome to Your Cabinet Project

This guide will walk you through building a wall-mounted whiskey or tea cabinet, one of our intermediate-level projects. Unlike our beginner courses where everyone builds the same project, this class gives you room to express your personal style through customization choices, particularly in the door panel.

Throughout this guide, you will find two types of callout boxes. Blue boxes contain technical information, definitions, and explanations of key concepts. The warm-toned boxes labeled "Thoughts from Steven" share personal insights, practical wisdom, and the kind of advice I would give you if we were working side by side at the bench.

Thoughts from Steven

I designed this class to be a bridge between beginner projects and more ambitious furniture. A cabinet like this teaches you techniques that scale up to larger casework: loose tenon joinery, rabbets for back panels, hinge mortising, and multiple approaches to creating a beautiful door panel. But it is still small enough to finish without overwhelming your schedule.

More importantly, this project is yours to customize. I will show you the techniques, but the design choices, from wood species to door panel treatment, should reflect what you want to see hanging on your wall.

About This Project

Course Overview

This is an intermediate woodworking class designed for woodworkers who have completed the Introduction to Woodworking class or have equivalent experience. You should already be comfortable using basic shop tools independently and safely.

The cabinet features a carcass with fixed interior shelves, a single drawer, and a framed door. The door panel offers four customization paths, ranging from simple cherry plywood to elaborate marquetry with laser-cut veneer.

Prerequisites

Completion of Introduction to Woodworking class or equivalent basic woodworking knowledge. You should be comfortable with the jointer, planer, table saw, miter saw, and basic hand tools. Access to a workshop is essential for completing homework assignments.

What You Will Build

- Wall-mounted cabinet carcass with loose tenon joinery
- Fixed interior shelves in dados
- Single mitered drawer
- Framed door with your choice of panel treatment
- French cleat wall mounting system

Time Commitment

The techniques and customizations you choose will affect the total time needed. The in-class sessions cover the core techniques, but significant work on this cabinet will happen outside of class. Plan for this, especially if you choose one of the more elaborate door panel options.

Materials Fee

There is a \$50.00 materials fee payable during class. This covers the primary wood stock and plywood. Specialty materials for advanced door panel options may require additional cost.

Door Panel Customization Options

The door panel is where this project becomes uniquely yours. You have four paths to choose from, each requiring different skills and time commitments. Choose based on your interests, available time, and the look you want to achieve.

Option 1: Cherry Plywood Panel

The simplest approach. A quarter-inch cherry plywood panel cut to size and set into the door frame. Clean, elegant, and lets the frame do the talking. This is a great choice if you want to focus on perfecting the cabinet construction techniques without adding complexity to the door.

Time: Minimal additional time beyond frame construction.

Option 2: Solid Panel with Laser Engraving

A solid cherry panel that we glue up from narrower boards, then mill and size. The panel gets sent through our laser engraver for custom artwork or text. This could be a family crest, a favorite quote, or decorative patterns.

Time: Additional time for glue-up, laser setup, and engraving.

Option 3: Burl Veneer Panel

We start with an MDF or plywood core cut to size, then apply figured burl veneer to both faces using glue and our vacuum press. The result is a panel with stunning grain figure that would be impossible to achieve with solid wood.

Time: Requires vacuum pressing time for both faces plus cleanup.

Option 4: Marquetry Panel

The most involved option. We create a design using different veneer species, cutting the shapes with the laser and taping them together like a puzzle. The assembled veneer design gets pressed onto the core. This is real marquetry, a traditional craft that dates back centuries.

Time: Significant additional time for design, cutting, assembly, and pressing.

Thoughts from Steven

Do not choose marquetry because you think you should challenge yourself. Choose it because you genuinely want to learn that technique and have the time to do it justice. There is nothing wrong with the plywood panel option. A well-executed simple design beats a rushed complicated one every time.

That said, if marquetry has always intrigued you, this is a great scale to try it. The panel is small enough that mistakes are recoverable, but large enough to create something meaningful.

Understanding Casework Construction

A cabinet is fundamentally a box, but making that box strong, square, and beautiful requires understanding how the parts work together and how wood moves over time.

Carcass Joinery

We use loose tenon joinery for the carcass corners. A loose tenon is a separate piece of wood that fits into mortises cut in both mating pieces. The Festool Domino makes this quick and precise, but the principle is ancient. The tenon provides mechanical strength and glue surface area that simple butt joints cannot match.

Why Loose Tenons?

Traditional mortise and tenon joints are cut directly into the parts being joined, one with a mortise (hole), the other with a tenon (tongue). Loose tenon joinery cuts matching mortises in both parts, then bridges them with a separate tenon. This is faster to produce with modern tools and provides equivalent strength.

Shelf Joinery

The interior shelves sit in dados, which are grooves cut across the grain of the side panels. Dados provide mechanical support for the shelf while hiding the joint behind the door. We cut them on the table saw with a dado stack or make multiple passes with a regular blade.

The Rabbet for the Back

The cabinet back sits in a rabbet, an L-shaped step cut along the back inside edge of the carcass. The back panel provides racking resistance, keeping the cabinet square once assembled. Without a back panel firmly attached, even a well-joined carcass can twist out of square over time.

Wood Movement Considerations

Cherry, like all solid wood, expands and contracts across its width as humidity changes. The carcass construction accounts for this by orienting all parts with consistent grain direction and using plywood for the back and drawer bottom where dimensional stability matters.

Thoughts from Steven

Wood will do what wood wants to do. We can plan for movement, design around it, and do everything right, but wood is ultimately unpredictable. A tree spent decades growing under tension and compression, reacting to wind, weather, and its own weight. That stress is locked inside the wood. When we mill, cut, and process a board, we release some of that tension and we never know exactly when or how the wood will react.

This is not a reason to be anxious. It is a reason to understand the principles, make good choices, and accept that some variation is part of working with a natural material.

Safety at The Joinery

This is an intermediate class, so I am trusting that you already understand basic shop safety. But I want to reinforce The Joinery's core safety framework because it applies to every tool and every project.

The 2-3-12 Rule

Every tool at The Joinery can be approached with this simple framework:

The Joinery's 2-3-12 Safety Rule

2: Every tool has two control surfaces. Know them and use them properly.

3: Keep your hands at least three inches from any blade or cutter.

12: For workpieces twelve inches or less, do a gut check. Am I using the right tool? Is my grip safe? Should I use a push stick or jig?

Tool-Specific Notes for This Project

This project uses the table saw extensively for ripping, dados, and rabbets. Always use the blade guard when possible, and never reach over a spinning blade for any reason. When cutting dados, the blade guard may need to be removed. Move deliberately and keep hands clear.

The bandsaw is forgiving but can still cause injury. Keep fingers to the side of the blade path, never directly in front of it. For curved cuts on the door panel template, move slowly and let the blade do the work.

The router is one of the more dangerous tools in the shop. It spins fast, grabs aggressively, and can kick back with force. Always move against the rotation of the bit, secure your workpiece, and never start the router with the bit touching the wood.

Thoughts from Steven

If something feels wrong, stop. Trust your instincts. No project is worth an injury. I would rather you ask a question that feels obvious than have you push through uncertainty. That is what I am here for.

Tools Required

The Joinery provides all the tools needed to complete this project. However, some tools may be in limited supply during class. If you have your own, feel free to bring them.

Personal Items to Bring

- Pencil and notepad
- Ruler
- Tape measure (6 feet or longer)
- Dust mask
- Eye protection
- Hearing protection

Shop Tools We Will Use

- Jointer and thickness planer for milling
- Table saw for ripping, dados, and rabbets
- Miter saw for crosscutting to length
- Festool Domino for loose tenon joinery
- Router for edge profiles and hinge mortises
- Bandsaw for curved cuts
- Laser cutter/engraver (for door panel options)
- Vacuum press (for veneer options)
- Clamps, squares, and glue supplies

Bill of Materials

The following materials are included in the class materials fee. Quantities and dimensions are approximate and may be adjusted based on your specific design choices.

Primary Stock

Part	Quantity	Species	Notes
Carcass sides	2	Cherry	4/4 rough, milled to 3/4"
Carcass top/bottom	2	Cherry	4/4 rough, milled to 3/4"
Shelves	As designed	Cherry	3/4" finished thickness
Door frame	4 pieces	Cherry	4/4 rough, milled to thickness
Drawer sides	4	Cherry	4/4 rough, milled to 1/2"
Handle (if making)	1	Cherry	From offcuts

Sheet Goods

Part	Quantity	Material	Notes
Cabinet back	1	1/4" Cherry plywood	Cut to fit rabbet
Drawer bottom	1	1/4" Cherry plywood	Cut to fit dado
Door panel (Option 1)	1	1/4" Cherry plywood	If choosing simple panel

Hardware

Item	Quantity	Size	Notes
Hinges	2	As selected	Mortised into carcass side
Door pull/knob	1	As selected	Personal preference
French cleat hardware	1 set	Standard	Wall mounting system

Veneer Options

If choosing Option 3 (Burl Veneer) or Option 4 (Marquetry), additional veneer materials will be required. These may involve additional cost depending on species and figure. Discuss your design with the instructor before class to ensure materials are available.

Phase 1: Building the Carcass

The carcass is the foundation of the cabinet. We build it first because the door and drawer dimensions depend on the finished carcass size. Work carefully here and everything else will fit properly.

Step 1: Rough Cut and Mill the Carcass Parts

Start by rough cutting your carcass stock to approximate length, leaving an inch or so of extra length for final trimming. This gives you working room and accounts for any end checking or defects.

1. Inspect your rough lumber for defects, checking, and grain orientation. Mark any areas to avoid.
2. Rough cut parts to approximate length at the miter saw.
3. Joint one face flat, checking for wind (twist) across the board.
4. Joint one edge square to the face.
5. Plane to final thickness, taking equal amounts from each face to balance internal stress.
6. Rip to final width at the table saw, then crosscut to final length.

Why Alternate Planer Passes?

Wood has internal stress from years of growth. When you remove material from only one side, you release stress unevenly and the board cups or bows. By taking equal passes from both faces, you release stress symmetrically and the board stays flat.

Step 2: Cut Joinery

With parts milled to final dimension, we cut the joinery that holds the carcass together.

Loose Tenon Mortises

The carcass corners join with loose tenons. We use the Festool Domino to cut matching mortises in the mating parts.

1. Mark reference faces on all parts. These faces will be positioned against the Domino fence for consistency.
2. Mark mortise locations on the carcass sides, spacing them evenly along the joint.
3. Cut mortises in the end grain of the top and bottom pieces.
4. Cut matching mortises in the face grain of the side pieces.

Domino Settings

Use 8mm x 50mm dominoes for the carcass joints. Set the mortise depth to 25mm on each piece so the 50mm domino is fully captured. The offset setting on the Domino allows you to shift the mortise position. For flush joints, center the mortise in the stock thickness.

Shelf Dados

The interior shelves sit in dados cut across the inside faces of the carcass sides.

1. Mark shelf positions on the inside face of both side panels.
2. Set up the table saw with a dado stack matching your shelf thickness.
3. Cut dados to a depth of approximately 1/4 inch.
4. Test fit a shelf piece in the dado. It should slide in with light hand pressure.

Rabbet for the Back

The cabinet back fits into a rabbet along the inside back edge of all four carcass pieces.

1. Set up the table saw with the blade at the height of your plywood thickness plus 1/16 inch.
2. Position the fence to leave approximately 3/8 inch of material.
3. Make the first pass with the piece flat on the table.
4. Make the second pass with the piece on edge to complete the rabbet.

Step 3: Mortise for Hinges

The door hinges mount in mortises cut into the carcass side. It is easier to cut these now, before assembly, while you have easy access to the inside face.

1. Position your hinges on the carcass side and mark their outline.
2. Set a router with a straight bit to the depth of the hinge leaf.
3. Rout the mortise, staying inside your lines.
4. Clean up to the lines with a chisel, testing the fit as you go.

Thoughts from Steven

Hinge mortising is one of those tasks that seems fussy until you get the knack of it. The key is patience. A hinge that sits proud will prevent the door from closing properly. One that sits too deep creates a gap. Sneak up on the fit, testing frequently.

Step 4: Dry Fit and Assemble

Before any glue touches wood, do a complete dry assembly. This is your chance to catch problems while they are still fixable.

1. Insert dominoes dry (no glue) and assemble the entire carcass with shelves.
2. Check all joints for tight fit and proper alignment.
3. Measure diagonals to confirm the carcass is square.
4. Plan your clamp positions and glue sequence.
5. Disassemble, apply glue to mortises and domino tenons, and reassemble.
6. Clamp, check for square again, and adjust clamp pressure as needed.
7. Wipe excess glue with a damp cloth before it sets.

Checking for Square

Measure corner to corner diagonally. If both diagonal measurements are equal, the carcass is square. If they differ, apply clamp pressure across the longer diagonal to pull the carcass into square.

Step 5: Install the Back

Once the glue has cured, measure and cut the back panel to fit the rabbet. The back should fit snugly but not require force to install.

Pin the back into the rabbet with small brads or glue it in place. The back provides crucial racking resistance and helps keep the carcass square over time.

Phase 2: Building the Drawer

The drawer is a small box that fits inside the cabinet. We use mitered corners for a clean look that hides the joinery from all angles.

Step 1: Mill Drawer Stock

7. Mill drawer stock to 1/2 inch thickness.
8. Rip to the height of your drawer opening minus clearance.
9. Crosscut front, back, and sides to length, accounting for the miters.

Step 2: Cut Mitered Joints

Mitered corners require precise 45-degree cuts on both mating pieces. The miter saw or table saw with a miter gauge can produce these cuts.

5. Verify your miter angle with a reliable square or angle gauge.
6. Cut miters on all eight ends of the four drawer pieces.
7. Test fit corners. They should close tightly with no gaps.

Mitered Joint Strength

Mitered joints look elegant but are inherently weak because they join end grain to end grain. We reinforce them with the plywood bottom, which captures all four sides in a dado and ties the box together.

Step 3: Cut Bottom Dado

The drawer bottom sits in a shallow dado near the bottom edge of all four sides. Cut this before assembly.

5. Set up a dado cut matching your plywood thickness.
6. Position the dado approximately 1/4 inch up from the bottom edge.
7. Run all four pieces through, ensuring dados align at the mitered corners.

Step 4: Cut Bottom and Assemble

5. Measure the inside dimensions of the assembled drawer (dados to dados).
6. Cut the plywood bottom to fit, allowing slight clearance for expansion.
7. Dry fit the entire drawer with bottom in place.
8. Apply glue to mitered surfaces and assemble with the bottom captured.
9. Clamp with band clamps or tape, check for square.

Phase 3: Building the Door Frame

The door frame holds your chosen panel and presents the face of the cabinet to the world. We build it as a separate assembly that gets hinged to the carcass.

Step 1: Mill Door Frame Stock

10. Rough cut frame parts with extra length for joinery.
11. Mill to final thickness, matching your chosen door profile.
12. Rip to final width and crosscut to final length.

Step 2: Cut Frame Joinery

The frame joints can be cut several ways: mortise and tenon, bridle joints, or Domino loose tenons. The choice is yours based on the tools available and the look you want.

8. Mark frame parts with orientation marks to keep track of inside faces and joints.
9. Cut joinery at frame corners.
10. Cut a groove or rabbet on the inside back edge of all frame pieces to capture the panel.

Panel Capture Methods

A groove (dado running the length of the frame) captures the panel in the middle of the frame thickness. A rabbet (L-shaped step) on the back captures the panel behind the frame. Both work; the groove hides the panel edge completely while the rabbet allows panel removal for glass or other materials.

Step 3: Test Fit

Dry fit the frame with the panel in place before any glue. Verify that the panel floats freely in the groove or rabbet. Solid panels must not be glued in place because they need room to move with humidity changes.

Phase 4: Creating the Door Panel

This is where your customization choice comes to life. Follow the section below that matches your chosen option.

Option 1: Cherry Plywood Panel

The simplest approach produces a clean, elegant panel.

13. Measure the panel opening in the assembled frame, accounting for the groove depth on all sides.
14. Cut the plywood panel to size, allowing slight clearance for movement.
15. Test fit in the frame. The panel should move freely without rattling.

Option 2: Solid Panel with Laser Engraving

A solid cherry panel showcases the wood grain and accepts laser engraving beautifully.

11. If needed, glue up narrower boards to achieve panel width. Alternate growth rings for stability.
12. Mill the glued panel flat and to final thickness.
13. Cut to final dimensions.
14. Work with instructor to set up laser file for your chosen design.
15. Engrave the panel, then sand lightly to remove any char.

Option 3: Burl Veneer Panel

Figured burl veneer creates visual drama impossible to achieve with solid wood.

8. Cut MDF or plywood core to panel size.
9. Cut veneer pieces oversized by at least 1/2 inch on all sides.
10. Apply veneer to the back face first using glue and the vacuum press.
11. Once cured, apply veneer to the front face the same way.
12. Trim overhanging veneer flush with the core and sand edges smooth.

Why Veneer Both Faces?

Veneer pulls on the substrate as it dries and contracts. If you only veneer one face, the panel will cup toward the veneered side. By veneering both faces, the opposing tensions balance and the panel stays flat.

Option 4: Marquetry Panel

Marquetry creates a picture or pattern from different veneer species. This is the most time-intensive option but produces stunning results.

10. Cut core to panel size.
11. Apply backer veneer to the back face using glue and vacuum press.

12. Work with instructor to prepare your marquetry design file for the laser.
13. Cut veneer shapes from your selected species.
14. Assemble the design face-down on veneer tape, fitting pieces together like a puzzle.
15. Apply the assembled marquetry to the panel front with glue and vacuum press.
16. Remove tape, trim edges, and sand the entire surface carefully.

Thoughts from Steven

Marquetry looks intimidating, but the laser does the hard part: cutting precise shapes consistently. Your job is choosing a design that works with the grain patterns of your veneer species and assembling the pieces with patience. Start simple. A geometric pattern with three or four species will teach you the process without overwhelming you.

Phase 5: Final Assembly

With all components built, we bring everything together. Work through this phase methodically; rushing here undoes careful work on the components.

Step 1: Build the French Cleat

A French cleat is two interlocking beveled pieces that make hanging the cabinet easy and secure.

16. Rip a board with the blade tilted to 45 degrees, creating two mating pieces.
17. Attach one piece to the back of the cabinet, bevel facing down and out.
18. The mating piece attaches to the wall, bevel facing up and out.

French Cleat Benefits

French cleats distribute weight across the cleat length, not just at screw points. They allow easy removal for refinishing or moving. And the mating bevels self-align the cabinet as you hang it.

Step 2: Assemble the Door

Glue up the door frame around the panel. Remember: the panel floats freely and should not be glued in place.

16. Apply glue to frame joints only, not to the panel groove.
17. Insert panel as you assemble frame pieces.
18. Clamp frame joints, check for square, and ensure panel moves freely.
19. Wipe excess glue and let cure.

Step 3: Apply Finish

Sand all surfaces to at least 180 grit before finishing. The cabinet and door can be finished separately or together, depending on your preference.

For cherry, oil-based finishes bring out warmth and deepen color over time. Water-based finishes stay clearer but may raise grain. A simple wipe-on oil and wax combination is forgiving and produces a beautiful hand-rubbed look.

Thoughts from Steven

I am a big fan of Odie's Oil for projects like this. It is easy to apply, smells good, and builds to a soft luster that feels handmade. It will not give you a plastic-looking film like polyurethane. For a whiskey cabinet, that seems appropriate.

Whatever you choose, test on scrap first. Cherry can blotch with some finishes, and you want to see how your specific boards respond before committing.

Step 4: Install Hardware

17. Attach hinges to the door, then to the pre-mortised carcass side.

18. Adjust hinge screws until the door hangs level and closes smoothly.
19. Install your chosen door pull or knob.
20. Add any catches or stays if your design includes them.
21. Test drawer fit and add drawer pull if desired.

Glossary of Terms

Carcass: The main body or box structure of a cabinet.

Dado: A groove cut across the grain of a board, typically to hold a shelf or panel.

Rabbet: An L-shaped step cut along the edge of a board.

Loose tenon: A separate piece of wood that fits into matching mortises in two mating parts, creating a joint.

Mortise: A hole or slot cut into wood to receive a tenon.

French cleat: A wall-mounting system using two interlocking beveled boards.

Miter: A joint where two pieces meet at an angle, typically 45 degrees for a 90-degree corner.

Veneer: A thin slice of wood, typically 1/42 inch thick, applied to a substrate.

Marquetry: The art of creating pictures or patterns by assembling pieces of veneer.

Burl: An abnormal growth on a tree that produces highly figured grain patterns.

Vacuum press: A system using atmospheric pressure to clamp veneer or laminations to a substrate.

Domino: A proprietary loose tenon joinery system made by Festool, or the tenons used in that system.

Racking: The tendency of a frame or cabinet to twist into a parallelogram shape.

Wind (pronounced wined): Twist in a board, visible when sighting along its length.

Snipe: A deeper cut at the beginning or end of a board caused by the planer.

Next Steps

Congratulations on completing your whiskey or tea cabinet. This project has introduced you to casework construction techniques that scale up to larger furniture: bookcases, entertainment centers, kitchen cabinets, and built-ins.

Consider what you enjoyed most about this project. If the joinery engaged you, explore other joint types in future projects. If the door panel customization sparked your interest, veneer and marquetry offer a lifetime of learning. If you loved the planning and problem-solving, tackle something more complex next time.

Thoughts from Steven

Every project teaches you something, even the frustrating ones. Especially the frustrating ones. The cabinet you built may not be perfect, and that is fine. What matters is that you understand the process well enough to do it again, better, with the lessons from this attempt internalized.

Woodworking rewards patience and practice. The more you build, the more intuitive the work becomes. I look forward to seeing what you make next.

Stay Connected

The Joinery offers ongoing classes, open shop time, and a community of woodworkers at all skill levels. Visit thejoinery.club for our class schedule and membership information.

If you have questions about this project or want to discuss your next build, post in our Discord community where members and instructors can help.