Step 1: Assemble the Outer Box Structure

Components:

Part 1, Part 2, Part 3, Part 4

Instructions:

- 1 Lay all parts of the unit flat on the floor with their finished surfaces facing downward.
- 2 Alignment: Position the parts according to their corresponding edges, ensuring they align properly. Use the dado channel guides to help align the parts accurately.

3 Pocket Holes:

- Drive 1 ½-inch pocket screws to secure the pieces together.
- Ensure the pocket holes are facing outward so they will not be visible inside the finished product.

4 Part 3 Specifics:

- Note that **Part 3** is 0.75 inches shorter than the other parts.
- When assembling, ensure **Part 3** is flush with the front edge of the box. This will leave a 0.75-inch gap at the back, which will be used for another component later.



Step 2: Add Support Components to the Frame

Components:

• Part 5, Part 6, Part 7

Instructions:

1 Position the Parts:

- Arrange **Parts 5, 6, and 7** according to their positions in the diagram.
- Use the dado channel guides to help align the parts accurately with the outer box.

3 Attach the Parts:

- Secure **Parts 5, 6, and 7** using 1 ½-inch screws.
- Ensure all connections are tight, and the components are aligned flush with the frame edges.

4 Check the Assembly:

- Verify that the structure is sturdy and square.
- Double-check the alignment of **Parts 5, 6, and 7**.

5 Place the Frame:

- Once the components are securely attached, lift the assembled unit upright.
- Position it against the wall where you intend to install the Murphy bed.



Step 3: Attaching the Murphy Bed Unit to the Wall

Tools Required:

- Stud Finder
- Drill
- Pencil
- Anchors (if necessary)
- Metal Screws (if attaching to metal studs; not included)
- Provided Long Yellow Screws

Preparation:

1 Baseboard Removal:

• If your wall has a baseboard, it must be cut and removed to allow the back of the Murphy bed unit to sit flush against the wall.

Steps:

1 Positioning the Unit:

- Decide where you want the center of the Murphy bed to be on your wall.
- Mark the center point on the wall with a pencil.
- Mark the middle point on the top of **Part 5**.
- Align the center mark on **Part 5** with the center mark on your wall by moving the Murphy bed into position.

2 Stud Finding:

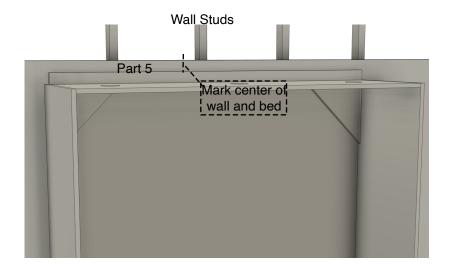
- Use a stud finder to locate the studs in the wall.
- Mark the position of each stud on the wall with a pencil.

3 Initial Securing:

- Take the provided long yellow screws and attach the Murphy bed to the wall.
- Drive the screws right above **Part 3**, ensuring they go through the lip of **Part 5** and into the wall studs.
- Use only **one screw** initially to allow adjustments later.

4 Adjustments:

- Once the bed frame is aligned correctly and the unit box is level, secure it by adding additional screws for stability.
- Ensure the Murphy bed is firmly anchored to the wall for safe operation.





Step 4: Attaching the Bed Frame Mounting Brackets

Components:

- Bed Frame Mounting Brackets
- Side Panels (Parts 1 and 2)

Tools and Materials:

- Drill
- Yellow Screws (8 x ¾")

Instructions:

1 Position the Brackets:

- Align the bed frame mounting brackets with the pre-designed guides on **Side Panels 1 and 2**.
- Ensure the brackets are oriented correctly, with the labeled side ("faces inward") positioned as shown in the diagram.

2 Predrill Holes:

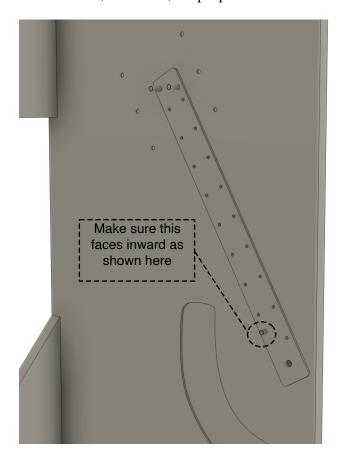
- Mark the screw hole locations using the bracket as a guide.
- Predrill small pilot holes at the marked positions to make mounting easier and ensure proper alignment.

3 Attach the Brackets:

- Secure the brackets to the side panels using the 8 x ¾" yellow screws.
- Tighten all screws firmly but avoid over-tightening to prevent damage to the panels or brackets.

4 Verify the Assembly:

- Check that the brackets are securely attached and aligned properly.
- Ensure the brackets face inward, as shown, for proper connection to the bed frame.



Step 5: Assembling the Bed Frame with Middle Supports

Components:

- #8 Footer
- #9 Header
- #10 Right Frame
- #11 Left Frame
- #12 Middle Frame
- #13 and #14: Vertical Middle Supports
- #15 and #16: Horizontal Middle Supports
- Corner Brackets

Tools and Materials:

- M6 Screws
- Drill or Screwdriver

Instructions:

1 Lay Out the Frame:

• Arrange the frame parts (#8, #9, #10, #11, and #12) as shown in the diagram to form a rectangular frame.

Corner Bracker

#8 Footer

*17 Long Clamo

*10 Right Frame

Include **Parts #13 and #14**, positioning them vertically within the frame.

M6 Hex

2 Attach the Corners:

- Secure the header (#9), footer (#8), right frame (#10), and left frame (#11) at each corner using corner brackets and M6 screws.
- Tighten the screws securely and ensure all corners form 90-degree angles.

3 Secure the Middle Frame (#12):

- Place **Part #12** horizontally between the header and footer for additional support.
- Attach it to the frame using corner brackets and **M6 screws**.

4 Position Vertical Supports (#13 and #14):

- Align Parts #13 and #14 vertically inside the frame according to the guide points.
- These supports should connect to the **header** (#9) and **footer** (#8).

5 Add Horizontal Supports (#15 and #16):

- Place **Parts #15 and #16** horizontally across the frame, spanning between the vertical supports (#13 and #14).
- Ensure they are positioned evenly and aligned with the guide points.

6 Fasten All Supports:

- Use **M6 screws** to secure **Parts** #13, #14, #15, and #16 to the frame.
- Tighten all screws to ensure the supports are firmly attached and the frame is rigid.

- Verify that all components are securely attached.
- Ensure the frame is square, sturdy, and ready for installation.

Step 7: Attaching the Bed Face Panels to the Frame

Components:

- #17 RH Panel
- #18 RH Panel
- Bed Frame

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Tools and Materials:

- #8 1 1/4" Screws
- 3mm Spacers
- Drill or Screwdriver

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Instructions:

• Prepare the Face Panels:

- Place #17 RH Panel and #18 RH Panel on the floor with the finished (patterned) side facing down.
- Align the panels next to each other to ensure a seamless fit.

• Position the Bed Frame:

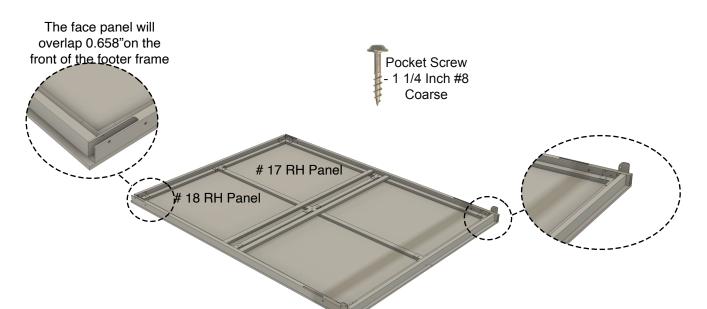
- Carefully place the assembled bed frame on top of the face panels.
- Align the frame so that it fits squarely on the panels.
- Ensure the face panels overlap the top footer frame by **0.658 inches**.
- **Note**: The panels must be oriented correctly.
 - The **bottom of the panel** should have a **3-inch gap**, while the **top of the panel** should have a **2-inch gap**.

• Insert 3mm Spacers:

- Place **3mm spacers** under the heads of the **#8 1** ½" **screws** before attaching the face panels to the bed frame.
- These spacers are necessary to prevent the screws from passing through the face panels, causing dimples or protrusions on the finished side.

• Secure the Face Panels:

- Using the predrilled holes on the bed frame as a guide, attach the panels to the frame with the spacer-equipped
 #8 1 ¼" screws.
- Drive the screws securely into the frame, ensuring the face panels are tightly attached and flush with the frame.





Step 8: Attaching the Bed Header

Component:

• Part #19 (Bed Header)

Tools and Materials:

- Predrilled Holes on the Bed Frame
- M6 Screws
- Drill or Screwdriver

Instructions:

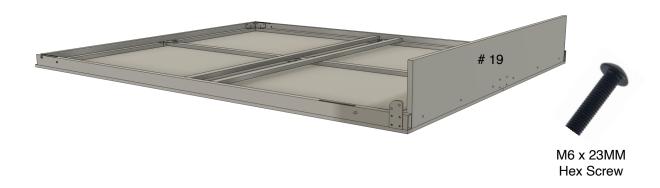
1 Position the Bed Header:

• Place Part #19 (Bed Header) at the top edge of the bed frame, aligning it with the predrilled holes.

2 Secure the Header:

- Using the predrilled holes as a guide, attach the header to the bed frame with **M6 screws**.
- Tighten the screws securely, ensuring the header is flush with the bed frame and properly aligned.

- Confirm that the header is firmly attached and does not wobble.
- Verify that the bed frame remains square after attaching the header.



Step 9: Installing the Bed Frame into the Outer Box Frame (Updated for Smoother Pivoting)

Components:

- Assembled Bed Frame
- Outer Box Frame
- Mounting Frame Brackets
- Pins

Tools, Materials, and Assistance:

- 2–3 People for Lifting
- **WD-40 Dry Lube** (or similar metal lubricant)

Instructions:

1 Prepare for Lifting:

- Ensure the outer box frame is securely attached to the wall and stable.
- Gather 2–3 people to assist with carefully lifting the bed frame.

2 Insert the Bed Frame:

- Lift the bed frame from the floor and position it at the bottom of the outer box frame.
- Carefully guide the bed frame into the outer box frame, ensuring it is centered.

3 Apply Lubrication (Recommended):

- Before aligning the holes, apply **WD-40 Dry Lube** to the **pins** and the **mounting bracket holes**.
- This will reduce friction and ensure smoother pivoting during operation.

4 Align the Holes:

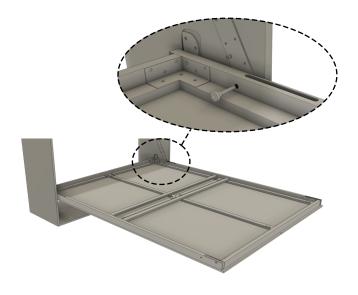
- Gently lift the bed frame to align the **frame holes** with the **mounting bracket holes** inside the outer box frame.
- Adjust as needed to achieve proper alignment.

5 Insert the Pins:

- Once the holes are aligned, insert the **pins** into the holes by gently pushing them through.
- The lubrication will help minimize any resistance during insertion.

6 Check Installation:

- Ensure the pins are securely in place and the bed frame pivots smoothly within the outer box frame.
- Test the pivoting mechanism to confirm that it operates without excessive rubbing or resistance.



Step 10: Installing the Automated Leg Mechanism

Components:

- Leg Rods
- Legs
- Socket Head Screws
- M6 Screws

Tools and Materials:

- Screwdriver
- WD-40 Dry Lube

Instructions:

1 Insert the Leg Rods:

- Slide the **leg rods** through the inside of the bed frame, ensuring the rod aligns with the slot cut near the pin.
- To guide the rod through the slot, use a screwdriver to help catch and pull the rod tip while someone pushes it from the opposite side.

2 Secure the Legs:

- Once the rod is in place, attach the **legs** by inserting the **socket head screws** through the rod and securing them tightly.
- Ensure the legs are aligned correctly and attached securely.

3 Attach the Leg Rod to the Bed Frame:

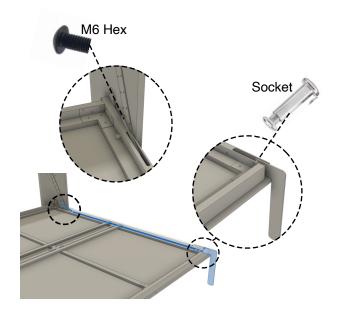
- Lift the bed frame slightly to align the leg rod with the mounting pin inside the bed frame.
- Use **M6 screws** to fasten the leg rod securely to the bed frame.

4 Test the Mechanism:

- Manually lift the bed frame up and down to ensure the legs deploy and retract smoothly.
- Check for any misalignments and make adjustments as necessary.

5 Lubricate the Mechanism:

 Apply WD-40 Dry Lube to the leg rods and moving parts to reduce friction and ensure smooth operation over time.



Step 11: Final Alignment and Securing the Bed to the Wall

Tools and Materials:

- Drill or Screwdriver
- Additional Bolts (from Step 3)

Instructions:

1 Lift the Bed:

- Manually lift the bed frame to its upright position.
- Carefully inspect the alignment between the **face panels** and the **bed box frame** to ensure everything is securely squared.

2 Check for Squareness:

- Verify that the bed frame and the outer box are square.
- If misalignment is found, proceed to adjust the outer frame.

3 Adjust if Necessary:

- If the bed frame or outer box is not square, remove the single bolt that was used to secure the frame to the wall (from **Step 3**).
- Adjust the **outer box frame** until the bed is perfectly square and aligned.

4 Secure the Bed Fully:

- Once the bed and outer box are squared, bolt the rest of the bed to the wall using the remaining bolts.
- Drive the bolts into the studs through the lip of **Part 5** as described in **Step 3**.

- Confirm that the bed operates smoothly and that all components are secure.
- Test the bed's alignment by raising and lowering it manually.



Step 12: Installing the Bed Stoppers

Components:

Bed Stoppers

Tools and Materials:

- **Screws**
- **Drill or Screwdriver**

Instructions:

1 **Position the Bed Stoppers:**

- Locate the stopper positions on the side panels of Parts 1 and 2, as shown in the image.
- The stoppers should be mounted on the **inside** of the side panels to limit the bed's backward movement.

2 Mark the Locations:

Use the provided measurements (7.9" and 2.5" from reference points) to mark the stopper positions on both side panels.

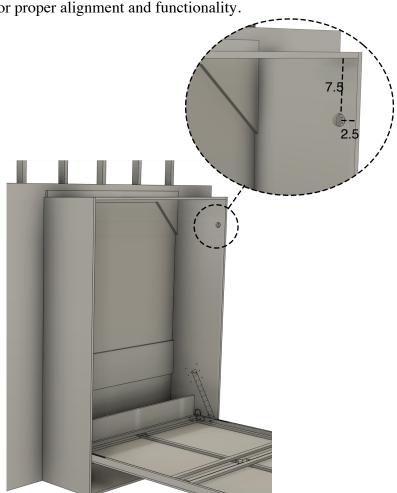
Attach the Stoppers: 3

- Align the stoppers with the marked locations.
- Secure each stopper to the side panels using screws, ensuring they are firmly in place.

Final Check:

Test the stoppers by lowering the bed frame to ensure they prevent the bed from going too far back.

Adjust if necessary for proper alignment and functionality.



Step 13: Attaching the Gas Spring Mechanism

Components:

- Gas Springs
- M6 Screws
- Spring Mechanism Straps (to be removed after securing)

Tools and Materials:

- Drill or Screwdriver
- Weight (to simulate mattress weight during testing)

Instructions:

1 Prepare for Installation:

- Ensure the bed frame is securely attached to the wall and all previous steps are completed.
- Note that the **gas spring mechanism** requires adequate weight (like a mattress) to function properly. Without it, the bed will not stay down on its own during testing.

2 Position the Gas Springs:

- Have one person lift the bed frame while another aligns the **gas springs** with the mounting points on the side panels (Parts 1 and 2) and the bed frame.
- Refer to the image to identify the correct orientation and attachment points for the gas springs.

3 Attach the Gas Springs:

- Secure the springs at both ends using **M6 screws**, as shown in the image.
- Attach the springs to their corresponding mounting points (e.g., 35kg, 60kg, 80kg) based on the required tension for your bed size and weight.

4 Remove the Straps:

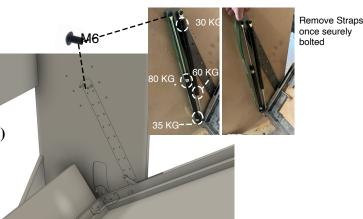
 Once the gas springs are securely attached, remove the protective straps that hold the springs compressed during shipping.

5 Test the Mechanism:

- Carefully lower the bed to test the gas spring mechanism.
- Ensure the bed lowers softly and operates smoothly.
- Add enough weight (e.g., a mattress) during testing to simulate normal usage.

6 Adjust if Necessary:

• If the bed does not operate smoothly or the springs seem misaligned, make adjustments to the mounting



Step 13: Attaching the Top Crown Molding

Component:

• Part #20 (Top Crown Molding)

Tools and Materials:

- Screws
- Drill or Screwdriver

Instructions:

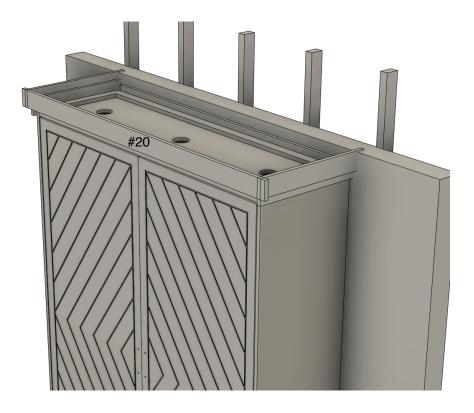
1 Position the Crown Molding:

- Place **Part #20** (**Top Crown Molding**) on top of the Murphy bed unit, aligning it with the edges of the frame.
- The crown molding is designed to fit snugly on top of the bed unit.

2 Secure the Molding:

- From the top of the crown molding, drive screws down into the bed frame to attach the molding securely.
- Ensure the screws are evenly spaced for a sturdy and balanced installation.

- Inspect the crown molding to ensure it is flush and aligned with the edges of the Murphy bed unit.
- Make any adjustments as necessary to achieve a seamless fit.



Step 14: Attaching the Bottom Baseboard

Components:

- Part #21 (Center Baseboard)
- Part #22 (Left Baseboard)
- Part #23 (Right Baseboard)

Tools and Materials:

- Compressor
- Nail Gun
- Tape Measure
- Saw (to cut baseboards to the correct length)

Instructions:

1 Measure and Trim the Baseboards:

- Measure the width of the bed unit.
- Note that **Parts #22** (**Left Baseboard**) and **#23** (**Right Baseboard**) are larger than the unit and need to be cut to the correct length.
- Use a saw to trim **Parts #22 and #23** as necessary.

2 Position the Baseboards:

- Align **Part #21** (**Center Baseboard**) along the bottom front of the bed frame.
- Place Part #22 (Left Baseboard) and Part #23 (Right Baseboard) on the respective sides, ensuring they fit snugly around the edges.

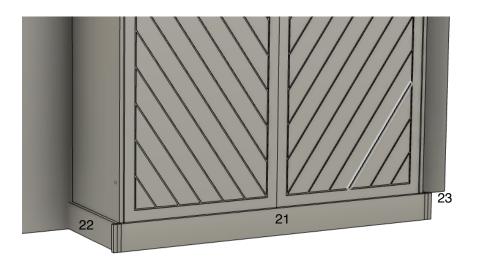
3 Attach the Baseboards:

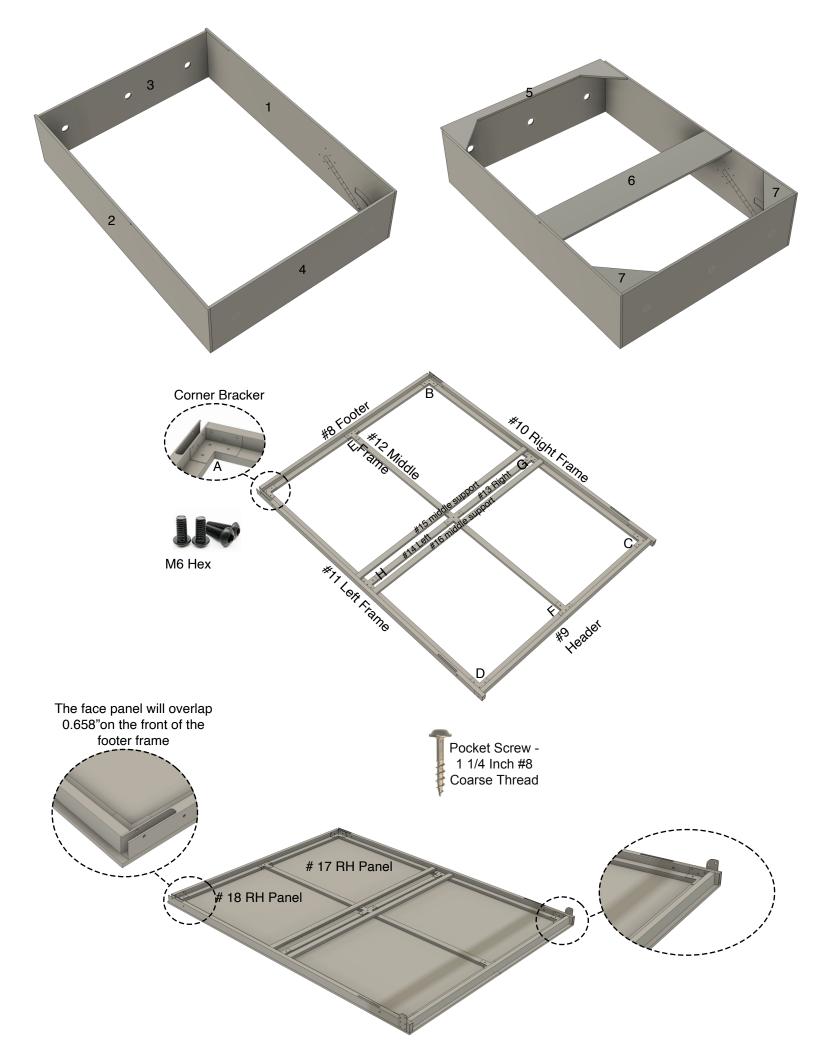
- Use a **nail gun** connected to a compressor to secure the baseboards to the bed unit.
- Drive nails at even intervals to ensure the baseboards are firmly attached.

4 Final Check:

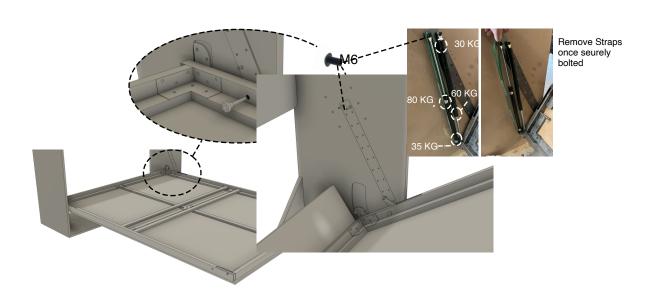
• Inspect the baseboards to ensure they are securely attached and properly aligned with the bed frame.

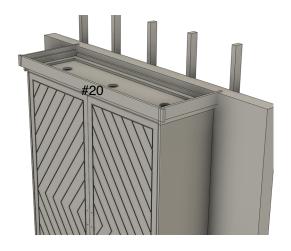
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Step 1: Assembling the Bookcase Box (Bottom Door Style)

Components:

- 1A: Left Side Panel
- **2A**: Right Side Panel
- 3A: Top Panel
- **4A**: Bottom Panel

Tools and Materials:

- Drill
- Square Bit
- **Pocket Screws** (1 ½")

Instructions:

1 Prepare the Parts:

- Lay all parts on the floor with the **front of the bookcase facing down**.
- Ensure the **dado guides** on the back panels are visible and facing up.

2 Position the Top and Bottom Panels:

- Place Part 3A (Top Panel) at the top of the side panels (1A and 2A).
- Place **Part 4A (Bottom Panel)** at the bottom of the side panels.

3 Direction of Pocket Holes:

- Ensure the **pocket screw holes** are oriented correctly:
 - Part 3A (Top Panel): The pocket holes should face upward (toward the unfinished side).
 - Part 4A (Bottom Panel): The pocket holes should face downward (toward the unfinished side).

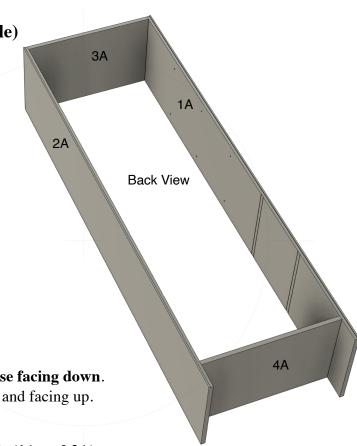
4 Align the Front:

• Make sure all parts are **flush** at the front of the bookcase to ensure a clean finish.

5 Assemble the Box:

- Use 1 ½" pocket screws to join the panels together.
- Drill screws into the **dado guide positions** to ensure all parts are securely attached.

- Verify that all connections are tight.
- Ensure the bookcase box is square by checking all corners with a square tool.



Step 2: Installing Shelves (Parts 5A and 6A)

Components:

• **5A**: Shelf Panels

• **6A**: Bottom Shelf Panel (Shorter for Door Space)

Instructions:

1 Position Shelf Panels:

- Place **Part 5A** (regular shelves) inside the bookcase frame at the designated positions.
- Position **Part 6A** (shorter shelf) closer to the bottom, as shown in the image. This panel is designed to leave a **gap at the front** for the bottom door.

2 Align Shelves:

- Ensure **Part 5A** is level and **flush with the front edge** of the bookcase frame.
- For **Part 6A**, align the **back of the panel flush with the dado guide** at the rear of the bookcase, leaving the **gap at the front** as illustrated.

3 Pocket Hole Direction:

Ensure the **pocket holes** on **both 5A and 6A** are facing **downwards**. This ensures they will not be visible in the finished product.

4 Secure Shelves:

- Use 1 ½" **pocket screws** to attach the shelves to the side panels.
- Drill screws through the predrilled pocket holes and into the dado guides for a strong, concealed connection.

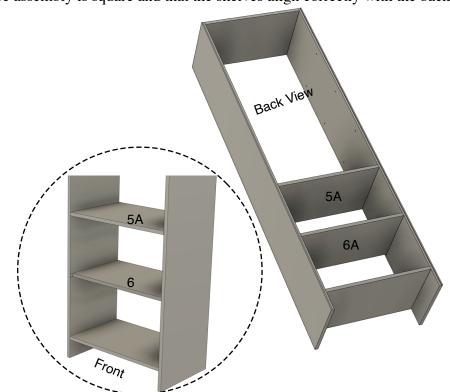
5 Check Alignment:

- Verify that both **5A** and **6A** are level and securely fastened.
- Ensure all panels are flush with the frame and that the gap in **Part 6A** is consistent.

6 Final Check:

Confirm that the entire assembly is square and that the shelves align correctly with the back panel and

side panels.



Step 3: Attaching the Back Panel (Part 7A)

Components:

Part 7A: Back Panel

Tools and Materials:

- **Staple Gun**
- 1/4 in. x 1/2 in. x 18-Gauge Crown Staples
- **Measuring Tape**
- **Pencil**
- **Putty and Touch-Up Paint (if needed)**

Instructions:

1 Square the Bookcase:

- Use a measuring tape to measure corner-to-corner diagonally across the bookcase. Both measurements should be equal to confirm that the box is square.
- Alternatively, place Part 7A (Back Panel) into the dado guides. If it fits perfectly, the bookcase is square.

Position the Back Panel:

- Lay the back panel (7A) into the dado guides on the back of the bookcase.
- Ensure the panel is flush with the edges of the bookcase frame.

3 **Mark Center Lines:**

- Use a pencil to draw straight lines along the centers of **Parts 4A, 5A, and 6A** on the back of the
- These lines will guide where you staple to secure the back panel to the shelves.

Staple the Back Panel:

- Using the **staple gun** with 1/4 in. x 1/2 in. x 18-Gauge Crown Staples, staple along the edges of the back panel every 3-4 inches.
- Staple along the center lines of **Parts 4A, 5A, and 6A**, ensuring the back panel is tightly secured.

Adjust Staple Gun Pressure: 5

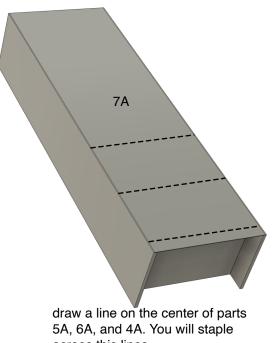
- Set the air pressure on the staple gun so that the staples do not penetrate past the 0.125-inch thickness of the back panel.
- Hold the staple gun straight to prevent the staples from coming out on the front side.

Correct Mistakes: 6

- If a staple accidentally goes through the front:
 - Remove the misplaced staple carefully.
 - Apply putty to fill the hole.
 - Use touch-up paint to restore the finish.

Final Check:

Ensure all staples are evenly placed, and the back panel is securely attached without gaps.



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Step 4: Attaching the Side Bookcase to the Murphy Bed Panel

Components:

- Assembled Side Bookcase
- Murphy Bed Panel
- Murphy Bed Baseboard (Part 23)

Tools and Materials:

- Pocket Screws 1 1/4", #8 Coarse, Washer-Head
- Countersink Drill Bit
- Drill
- Saw (for baseboard adjustments)

Instructions:

1 Prepare the Baseboards:

- Remove or cut the **wall baseboard** where the side bookcase will be installed. This ensures the bookcase sits flush against the wall.
- Before attaching the bookcase, trim Murphy Bed Baseboard (Part 23) so it butts neatly against the front of the bookcase.
- 2 Note: It is recommended to install the Murphy bed baseboard **after** the side bookcase is secured.

3 Position the Bookcase:

- Align the assembled side bookcase against the side of the Murphy bed panel.
- Ensure it is flush with the wall and properly aligned with the Murphy bed.

4 Drill Countersink Holes:

- Use a **countersink drill bit** to create pilot holes for the screws. This will allow the screw heads to sit flush with the wood surface.
- Drill holes where the shelves will later cover the screw heads to maintain a clean, finished appearance.

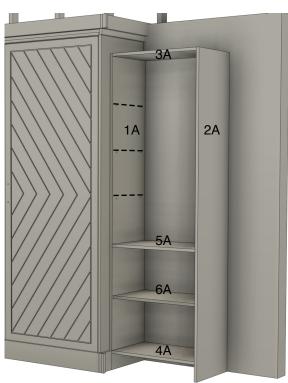
5 Attach the Bookcase:

- Secure the bookcase to the Murphy bed using 1 1/4" pocket screws.
- Place screws approximately 2 inches apart along the areas where Parts 4A, 5A, and 6A will go.
 Ensure the screws are driven in firmly for a strong attachment.

6 Cover Screw Heads:

- Install the shelves (**Parts 4A, 5A, and 6A**) to conceal the screw heads.
- Ensure the shelves are level and securely attached.

- Verify that the bookcase is flush with the wall and Murphy bed panel.
- Check that all screws are tight and the bookcase is sturdy.



Step 5: Attaching the Bottom Door (Part #8) to the Bookcase

Components:

- **Part #8**: Bottom Door
- Hinges

Tools and Materials:

- Drill
- Small Drill Bit (for pilot holes)
- Screws (provided with hinges)
- Screwdriver

Instructions:

1 Attach Hinges to the Door:

- Secure the hinges to **Part #8 (Bottom Door)**.
- Follow the predrilled holes on the door to attach the hinges, ensuring they are properly aligned.

2 Position the Door:

- Place the door inset into the bottom cavity of the bookcase.
- Open the door and have one person hold it steady in position while another aligns it with the side panel.

3 Mark and Drill Pilot Holes:

Use a **small drill bit** to create pilot holes for the screws on the side panel where the hinges will attach. This will make it easier to screw in the hinges.

4 Attach the Hinges to the Side Panel:

- Secure the hinges to the **side panel** of the bookcase using the provided screws.
- Ensure the door is firmly attached and opens and closes smoothly.

5 Adjust the Hinges:

- Use the **adjustment screws on the hinges** to fine-tune the door alignment:
 - **Up or Down**: Adjust the height of the door.
 - **Side to Side**: Ensure the door is flush with the bookcase and closes properly.

- Test the door to ensure it opens and closes smoothly.
- Verify that the door is properly aligned with the bookcase edges.



Step 6: Finalizing the Side Bookcase Installation

Components:

- Shelves
- Part 9A (Top Crown Molding)
- Part 10A (Baseboard)
- Part 11A (Side Baseboard)

Tools and Materials:

- Shelf Pins
- Compressor
- Finish Braid Nail Gun
- Saw (for baseboard adjustments)
- Drill (if crown molding adjustment is needed)

Instructions:

1 Place the Shelves:

- Insert **shelf pins** into the predrilled holes.
- Place the shelves onto the pins, ensuring they are level and securely supported.

2 Attach the Top Crown Molding (Part 9A):

- Align **Part 9A** (**Top Crown Molding**) on the top of the side bookcase.
- Secure it in place by screwing it from the inside of the crown molding base into the bookcase frame.
- Adjust the Height if Necessary:
 - If the bed crown molding touches the top of the side bookcase molding, remove the screws from the back of the crown molding base.
 - Adjust the height down to ensure clearance and then reattach the screws.

3 Install the Bottom Baseboards (Parts 10A and 11A):

• Measure and Cut:

- Measure the length of Part 10A (Front Baseboard) and Part 11A (Side Baseboard) to fit snugly around the bottom of the bookcase.
- Use a saw to cut the baseboards to the correct length on-site.

Attach the Baseboards:

- Use a **finish braid nail gun** connected to a compressor to nail the baseboards to the bookcase.
- Ensure the baseboards are flush and aligned with the bookcase edges



Note: Assembling the Second Side Bookcase

You can now follow the same instructions provided for assembling the first side bookcase. The second set of components will be labeled with the same numbers but will end with the letter **B** instead of **A** (e.g., **1B**, **2B**, **3B**, **etc.**).

- Ensure you align and assemble the second side bookcase using the same steps, tools, and materials.
- Attach the second bookcase to the opposite side of the Murphy bed panel, mirroring the process outlined earlier.