

MACHINE SHOP

PROJECTS

EDISON LIGHT BOOKEND

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Machines to Learn

- Miter saw
- Sander
- Hand Drill
- Staining Techniques

Components

- | | |
|--|----|
| • Edison Light Bulb | x1 |
| • Light Bulb Mount | x1 |
| • Wood ~ $\frac{3}{4}$ " x 5 $\frac{1}{4}$ " | x1 |
| • Screws | x4 |
| • Felt Feet | x8 |
| • Wood Stain | |

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❖ Steps ❖

1. Dimension & Cut Wood for Two L-Pieces

a. Dimension Wood

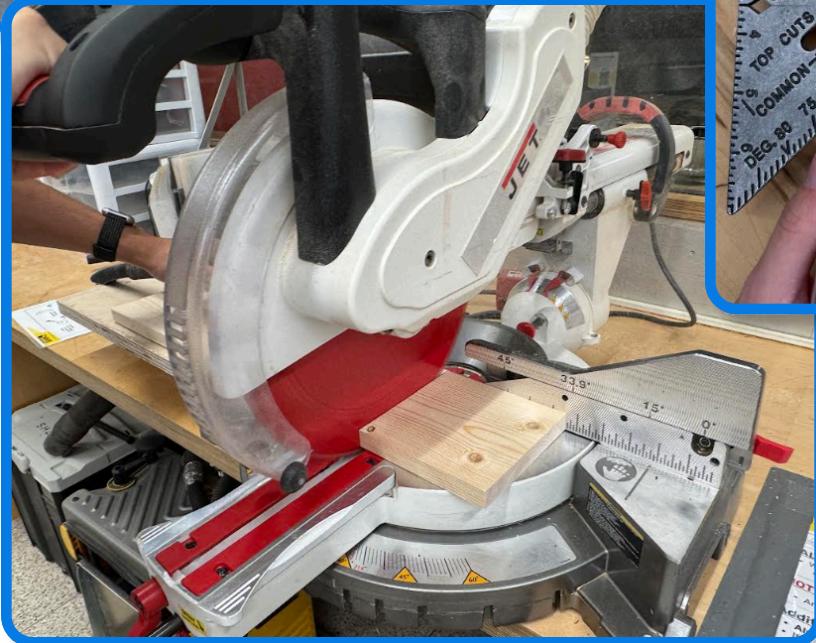
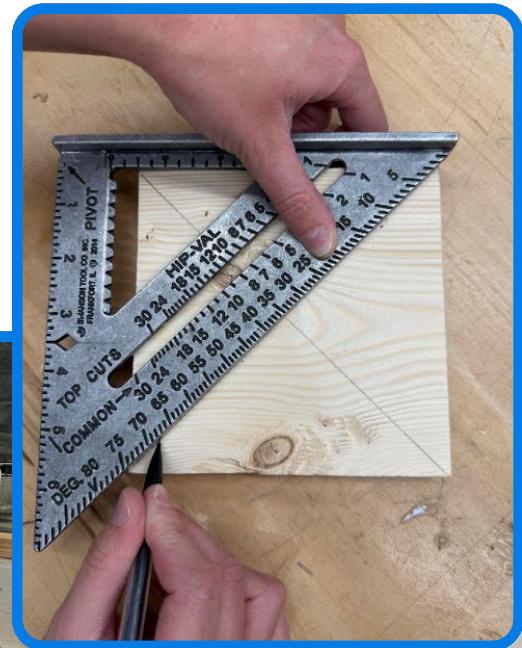
- i. 2 pieces of wood ~5 ½ " in length
- ii. 2 pieces of wood ~9 ½ " in length

b. Make cuts with miter saw

- i. Loosen miter saw slider bolt to use slider to cut wider wood pieces
- ii. Use hold-down stick to hold wooden base safely when cutting

c. Sand as desired (ie. round over the edges, remove splinters etc.)

d. Mark out center of each ~5 ½ " wood base



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2. Fasten Wood into L-Shaped Piece x2

a. Pick Out 2 Screws

- i. Ensure they are small enough in diameter compared to the wood's thickness to prevent splitting

b. Clamp a piece of 5 ½ & 9 ½ wood together to form an L-shape

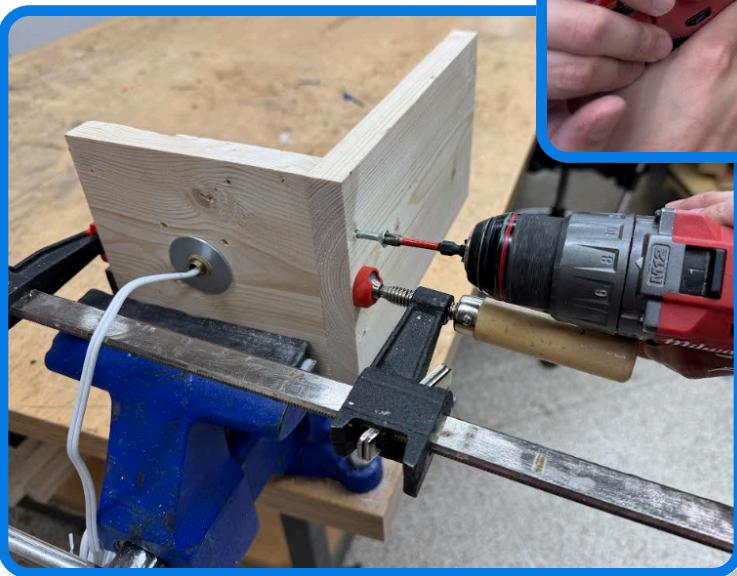
- i. Could use corner clamp or multiple clamp / vice combinations

c. Drill two pilot holes into outer corner of L

- i. Pick out drill bit approximately the size of the minor diameter of the screw

- ii. Drill pilot hole for each screw hole

d. Insert and tighten screws into holes



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3. Fasten Light Bulb Mount

- a. Clamp Light Bulb Mount to one L-piece
- b. Drill pilot holes where Light Bulb Mount Base holes align
 - i. Pick out drill bit approximately the size of the minor diameter of the screw
 - ii. Drill pilot hole for each screw hole
- c. Insert and tighten screws into holes
- d. Drill out hole in center of mount for electrical cable & light bulb screw to fit through
 - i. Recommend choosing drill bit slightly bigger than light bulb screw, 13/32" should be good



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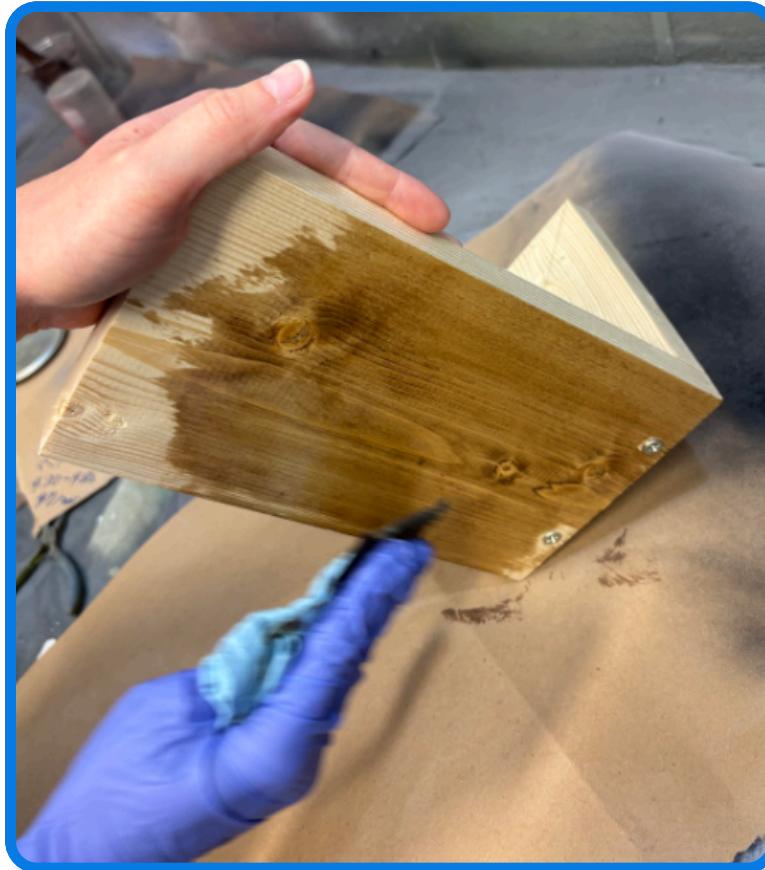
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❖ Steps ❖

4. Stain

- a. Choose color stain desired
- b. Apply desired number of coats evenly across wood
 - i. Put on disposable gloves
 - ii. Take a shop towel or foam brush and dip in stain
 - iii. Wipe towel/brush on interior edge of stain can to reduce dripping of stain and ensure an even coat
 - iv. Wipe towel/brush around wood. Make sure stain is even: avoid it pooling up or towel\brush being too dry
 - v. To get a deeper color apply more coats as desired every few minutes
- c. Once done applying coats finish assembling, but once building is completed let the bookends dry for a day before use



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5. Wire & Assemble Light Bulb Mount

a. Run Electrical Cable, In This Order, Through:

- i. The light bulb nut, washer, light bulb bolt, wood base, center of pipe base, and bottom of light bulb base

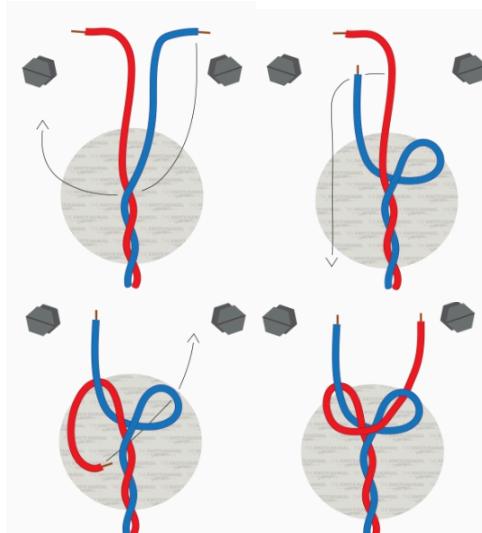
b. Tie Underwriters Knot with the electrical cable ends

c. Attach to top of light bulb base by fastening the bolts on top of each exposed electrical cable end

d. Press the top and bottom of these light bulb base together

e. Secure the light bulb base to the book end

- i. Screw the light bulb bolt into the light bulb base and tighten the nut from the bottom to secure the light bulb base to the wood



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❖ Steps ❖

6. Add Felt Feet & Screw in Light Bulb

a. Apply felt feet to the bottom of each L-piece

- i. May have to stack multiple on top of each other to allow more room for cord to lay under the wood

b. Screw in Light Bulb

Awesome job! You now have a edison light bookend!

