

MACHINE SHOP

# PROJECTS

## EDISON LIGHT BOOKEND

# EDISON LIGHT BOOKEND



### 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                                 |    |

# MACHINE SHOP PROJECTS

## EDISON LIGHT BOOKEND

### ❖ Steps ❖

#### 1. Dimension & Cut Wood for Two L-Pieces

##### a. Dimension Wood

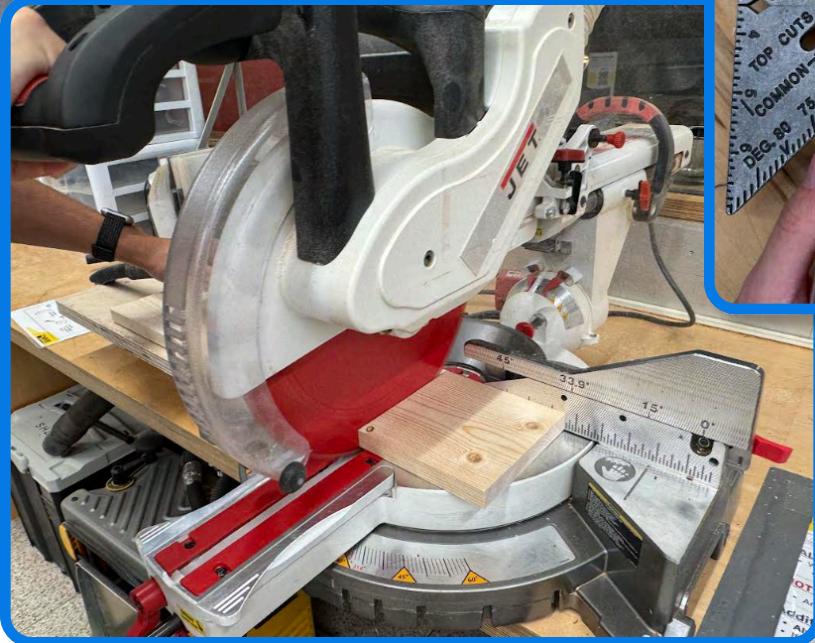
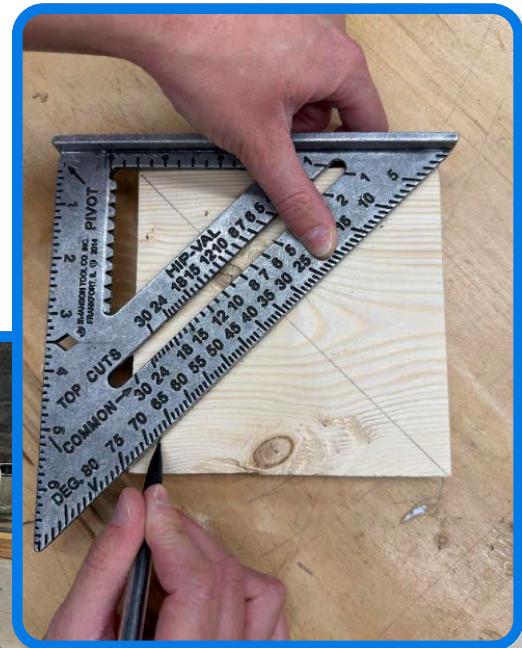
- i. 2 pieces of wood ~5 ½ " in length
- ii. 2 pieces of wood ~9 ½ " in length

##### 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



# MACHINE SHOP PROJECTS

## EDISON LIGHT BOOKEND

### ❖ Steps ❖

#### 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

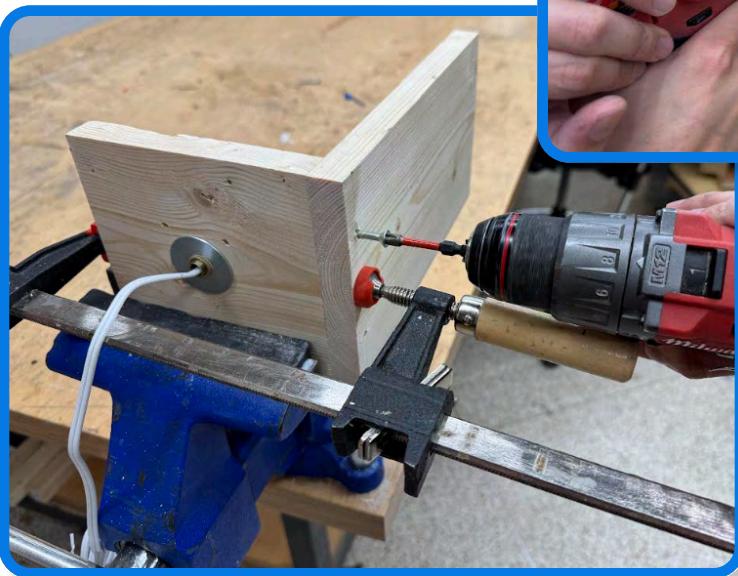
- i. Could use corner clamp or multiple clamp / vice combinations

##### 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



# MACHINE SHOP PROJECTS

## EDISON LIGHT BOOKEND

### ❖ Steps ❖

#### 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



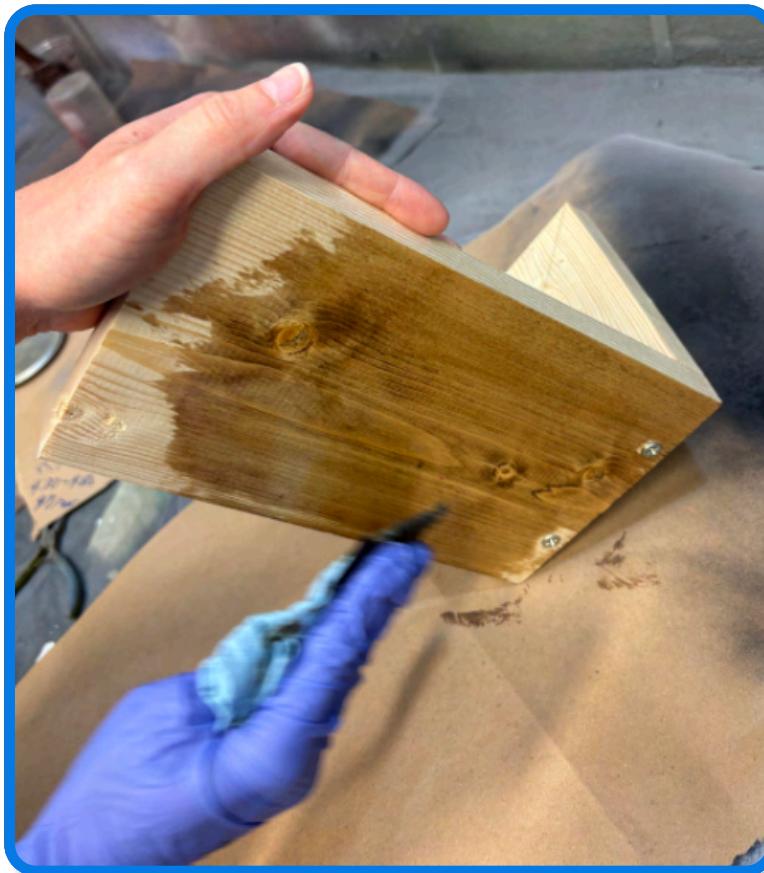
# MACHINE SHOP PROJECTS

## EDISON LIGHT BOOKEND

### ❖ 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



# MACHINE SHOP PROJECTS

## EDISON LIGHT BOOKEND

### ❖ Steps ❖

#### 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

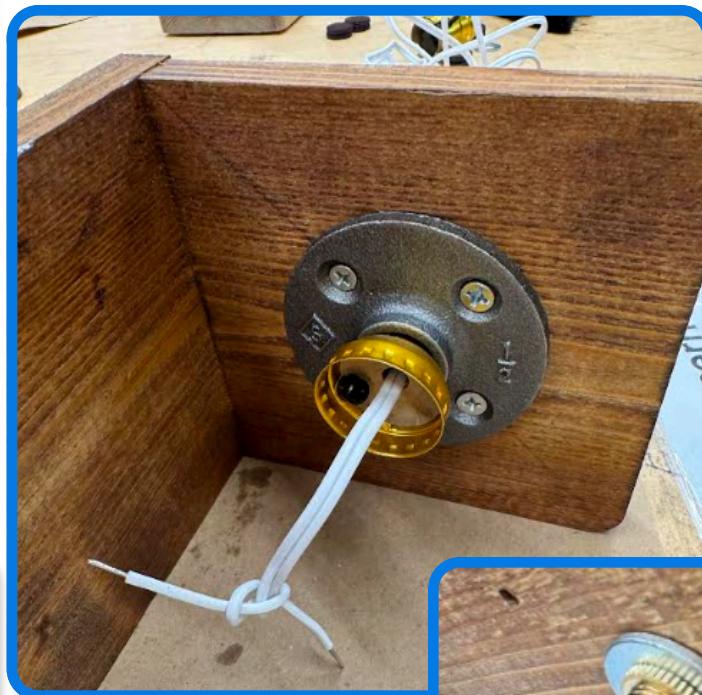
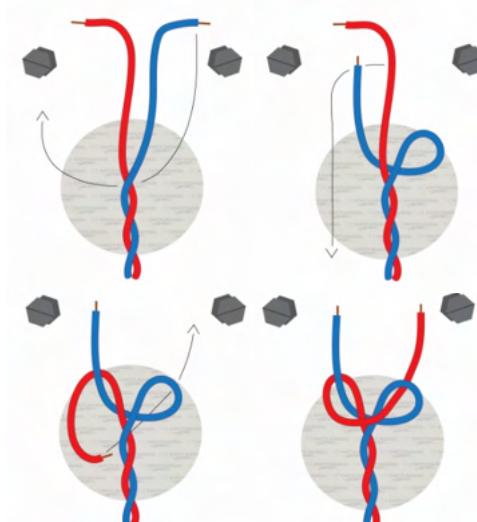
##### b. Tie Underwriters Knot with the electrical cable ends

##### 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



# MACHINE SHOP PROJECTS

## EDISON LIGHT BOOKEND

### ❖ 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!

