



## ◀ **ANDY WEYENBERG**

Andy Weyenberg began welding at his father's business a few years before joining the Army. After going to school for Electro-Mechanical, he started working for Miller Electric Mfg. LLC as a technical service rep and training instructor. Andy has built and raced stock cars since he was a teenager — and now builds high-performance street vehicles while also managing the Miller motorsports program.

**SKILL LEVEL:** Beginner  
**TIME COMMITMENT:** 2 hours

### **/ TOOLS AND MATERIALS**

-  **Multimatic® 220 AC/DC**
-  **Drill or drill press**
-  **5/16" drill bit**
-  **13/32" drill bit**
-  **3/32" drill bit**
-  **1/2" drill bit or step drill bit**
-  **Bandsaw or cutoff wheel**
-  **C-clamps**
-  **3/8" - 16 UNC tap**
-  **9/16" wrench**
-  **3/4" wrench/socket**
-  **Hammer**
-  **Transfer punch**
-  **4' LED shop light**  
(chain pull switch attached)
-  **50" of 3/4" square tubing**  
(the length of the square tubing is determined by the length of your shop light)
-  **1-1/2" x 1/8" flat stock**
-  **4-1/2" x 1/2" bolt**
-  **6" x 1/2" bolt**
-  **3/8" bolts (2)**  
(used to mount to steel structure)
-  **Nyloc nuts (3)**
-  **1/2" washers (2)**
-  **123 machinist block or welding square**
-  **.40 stainless safety wire**

**WARNING: READ AND FOLLOW ALL LABELS AND THE OWNER'S MANUAL.**



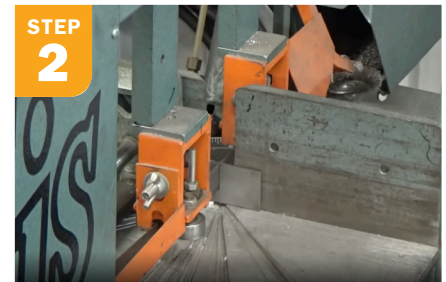
# SWINGING SHOP LIGHT MOUNT

When your eyesight is challenged in your shop or garage, a swinging, adjustable light will be the perfect addition to your welding space!

## STEP BY STEP



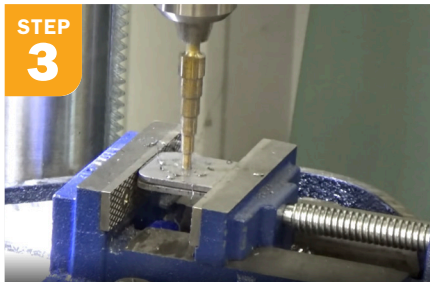
**STEP 1**  
Cut your 1-1/2" flat stock to 6" to be used as your wall mounting plate.



**STEP 2**  
Cut two additional 1-1/2" pieces from your flat stock. Rounding two corners is optional.

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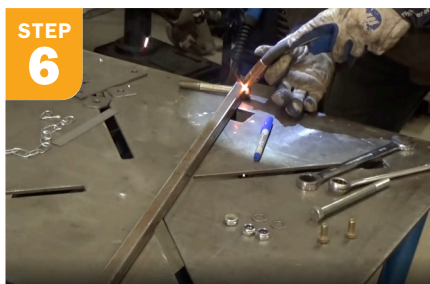
**STEP 3**  
Drill a 1/2" hole in the center of the two pieces. The hole should be 3/4" from each side. Deburr the bottom if needed.



**STEP 4**  
On the mounting plate, drill two 13/32" holes 1/2" from each end.



**STEP 5**  
Drill a 1/2" hole 9/16" from each end of the 3/4" square tubing.



**STEP 6**  
Set your Multomatic 220 AC/DC to the 14-gauge Auto-Set™ mode. Tack weld the 4-1/2" bolt into one of the holes on the square tubing to create the swing point. Tip: It helps to grind the plating off the bolt beforehand.



**STEP 7**  
Grab the other end of the square tubing and place the 6" bolt in the hole and use the nyloc nut. Put the nyloc bolt on the top side to create the handle.



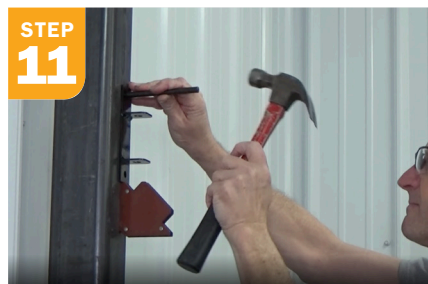
**STEP 8**  
Weld the 1-1/2" flat stock with the 1/2" holes (from steps 2 and 3) to the mounting plate. One piece should be placed 1-3/4" from one end and the other piece should be welded 1-1/4" from the other end. Weld just the insides of both pieces, setting the Auto-Set to 1/8" on the Multomatic 220 AC/DC, and let it cool before removing clamps to minimize warping.



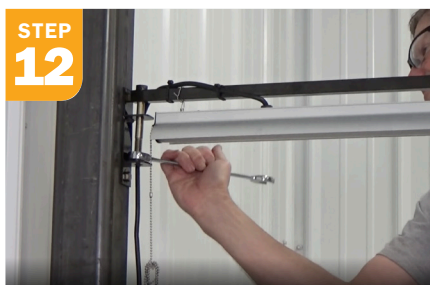
**STEP 9**  
Painting the square tubing is optional. Drill a 3/32" hole in the square tubing above where the chain would've mounted to the light.



**STEP 10**  
Use .40 stainless safety wire and thread it through the light mount, up through the square tubing and back around. Be sure to secure the ends and make sure the chain pull switch is at the swivel end.



**STEP 11**  
For mounting to a steel post, transfer punch the wall-mount hole. Drill with 5/16" drill bit and tap the holes for 3/8" bolt and install the wall mount.



**STEP 12**  
Install the light mount by sliding the swivel bolt through the top hole. Run a nyloc nut up the bolt far enough that it won't touch the bottom mount hole. Then add a washer.



**STEP 13**  
Put the swivel bolt through the bottom hole, add a washer and secure the remaining nyloc nut. To adjust tension, tighten the upper nyloc nut down to the bottom bracket until it touches. Then tighten the bottom nyloc nut to increase the swivel pressure.



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