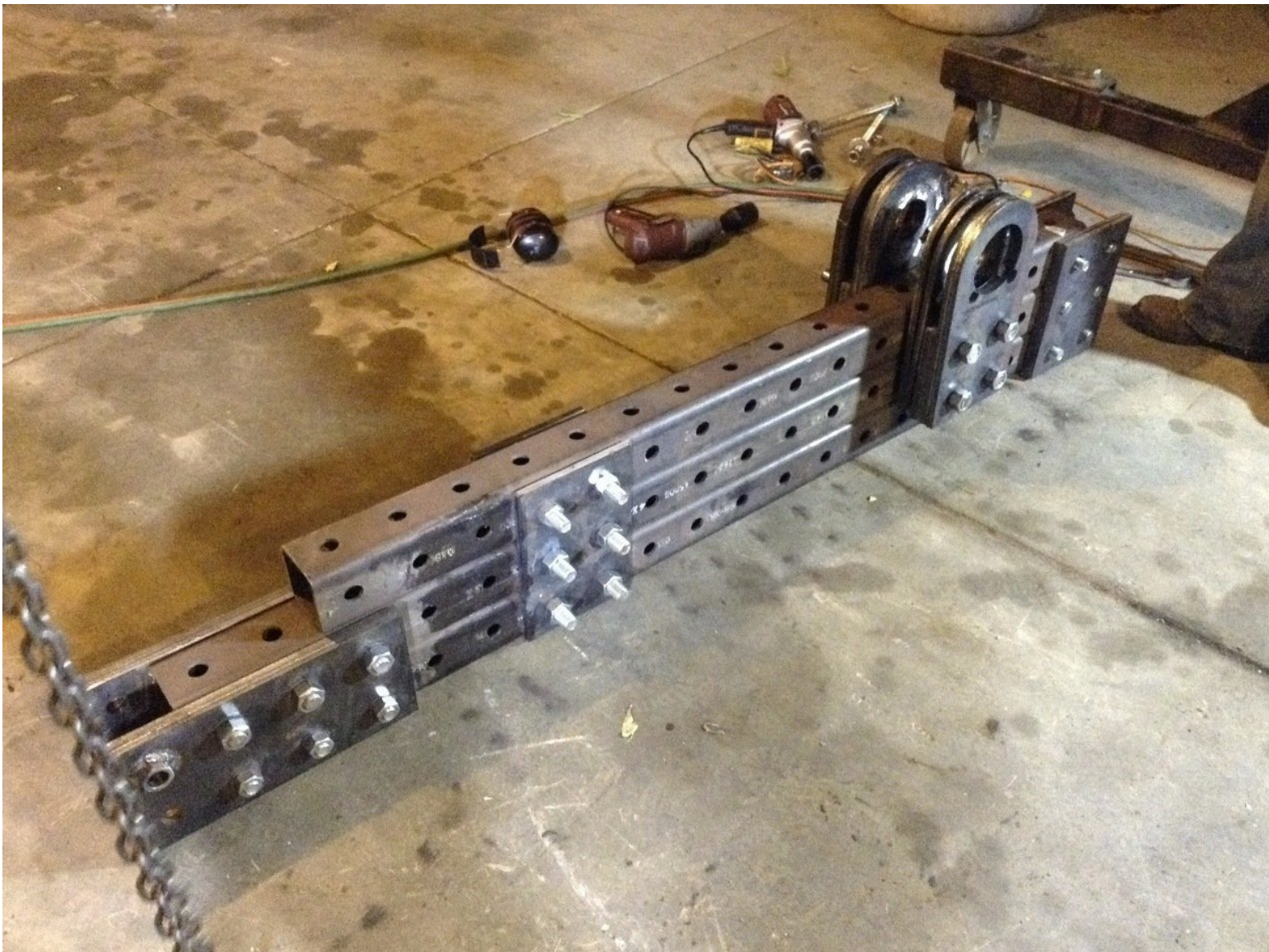




How to assemble the top frame of the Ironworker (in progress)

Written By: jeanbaptiste

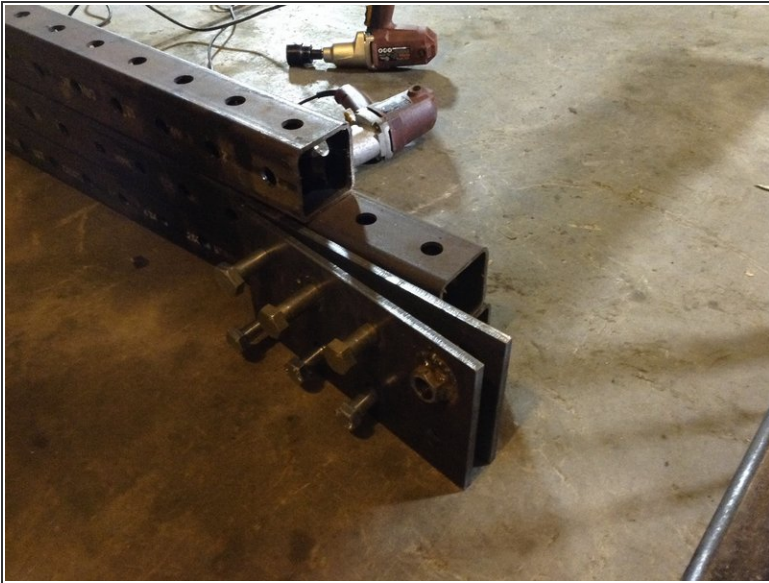


Step 1 — How to assemble the top frame of the Ironworker (in progress)



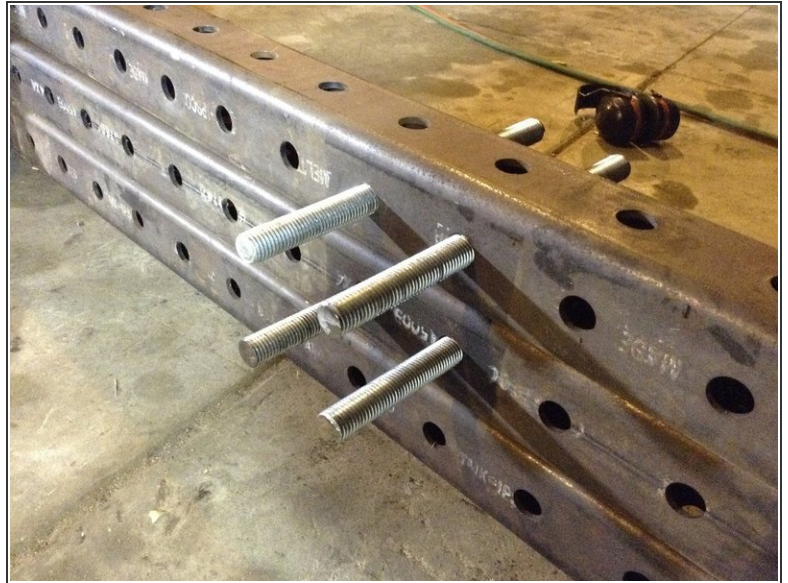
- Parts:
 - 2 19 hole 1/2" tubes
 - 1 17 hole 1/2" tube
- Stack the three tubes so they line up on one end.

Step 2



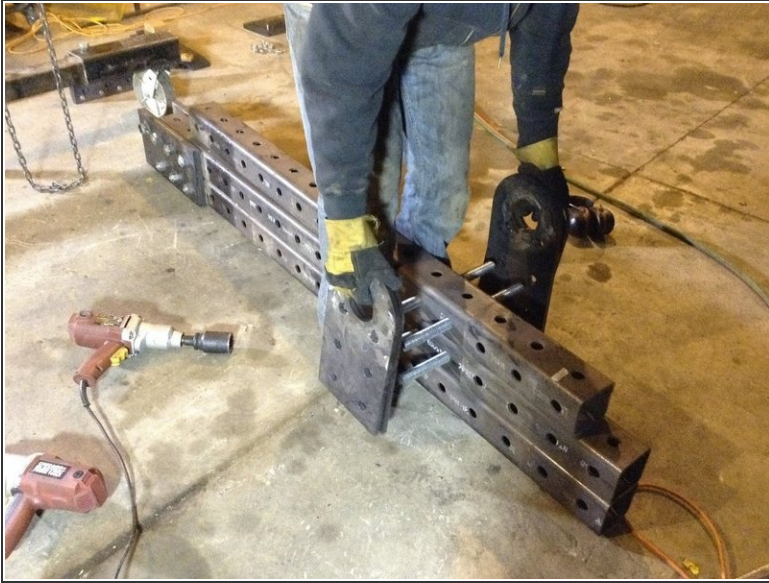
- Parts:
 - 4 2 hole x 4 hole plates
 - 6 1" x 8" bolts
 - 6 1" nuts
- Put the bolts through 2 plates, through the frame tubes, through the other 2 plates, and loosely put on nuts.
- The last two holes of the plates should extend past the end of the tubes.
- The pictures show a 7th nut welded on. You'll install that later so don't worry about it just yet.

Step 3



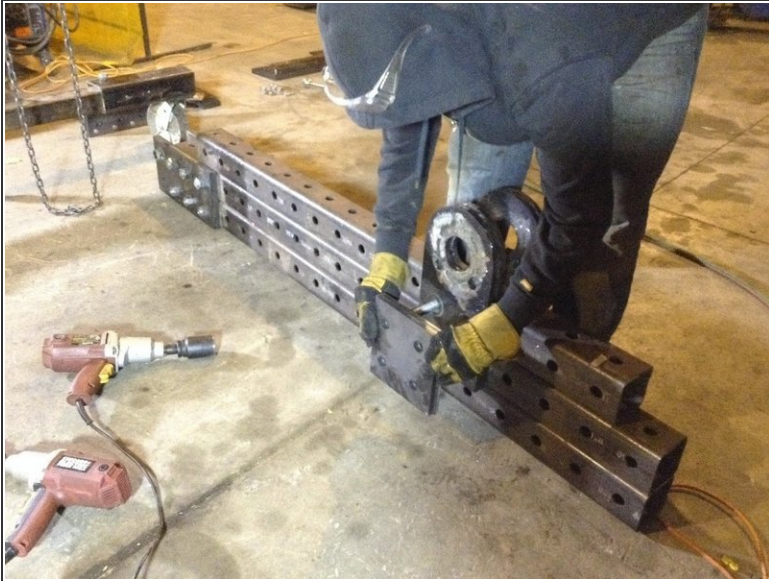
- Parts:
 - 4 14" x 1" threaded rod (TODO link to guide on cutting threaded rod)
- Put the threaded rod through the 4 holes shown in the picture so that half the rods sticks out from each side.

Step 4



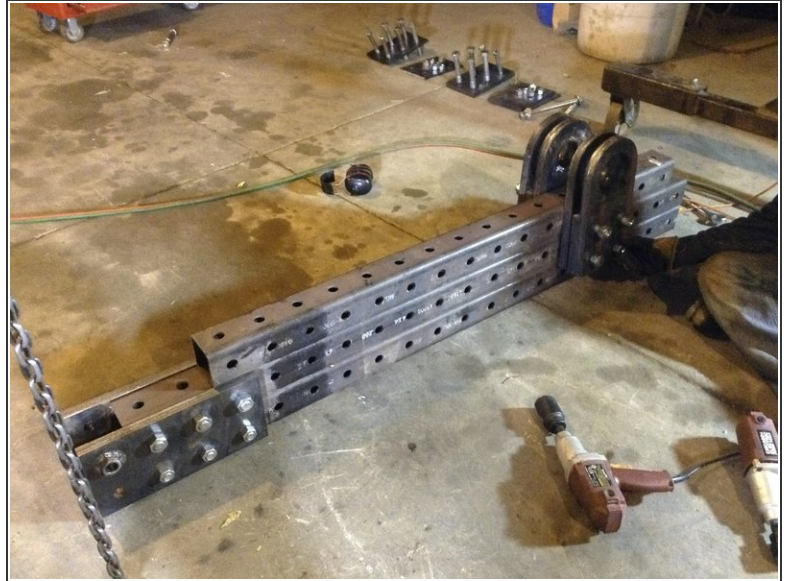
- Parts:
 - 4 pivot plates (TODO link to guide on making them) (for the ironworker, it's very important that the plates be perfectly flat against each other. If there are any bumps, grind them down.)
 - 0.5 ounces of grease (Dan made this up, Marcin should verify)
- Put two pivot plates on each side of the frame tubes over the 4 threaded rods.
- Grease the inside of the bushing (round area) on the pivot plates.

Step 5



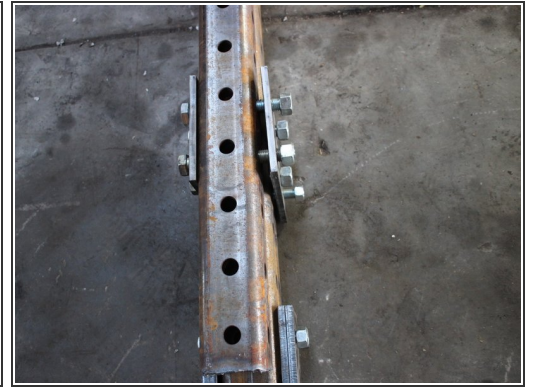
- Parts:
 - 4 2 hole x 2 hole plates
- Put two plates on each side of the frame tubes.

Step 6



- Parts:
 - 8 1" nuts
 - 4 pivot plates without bushings
- Add 2 pivot plates to each side and then put on the nuts loosely.

Step 7



- Parts:
 - 2 2 hole x 3 hole plates
 - 6 1" x 7" bolts
 - 6 1" nuts
- Put the bolts through the plate, through the frame tubes, through the other plate, and fasten loosely with nuts.

Step 8



- Parts:
 - 4 2 hole x 3 hole plates
 - 6 1" x 8" bolt
 - 6 1" nuts
- Put the bolts through two plates, through the tubes, through the other two plates, and fasten the nuts loosely.

Step 9



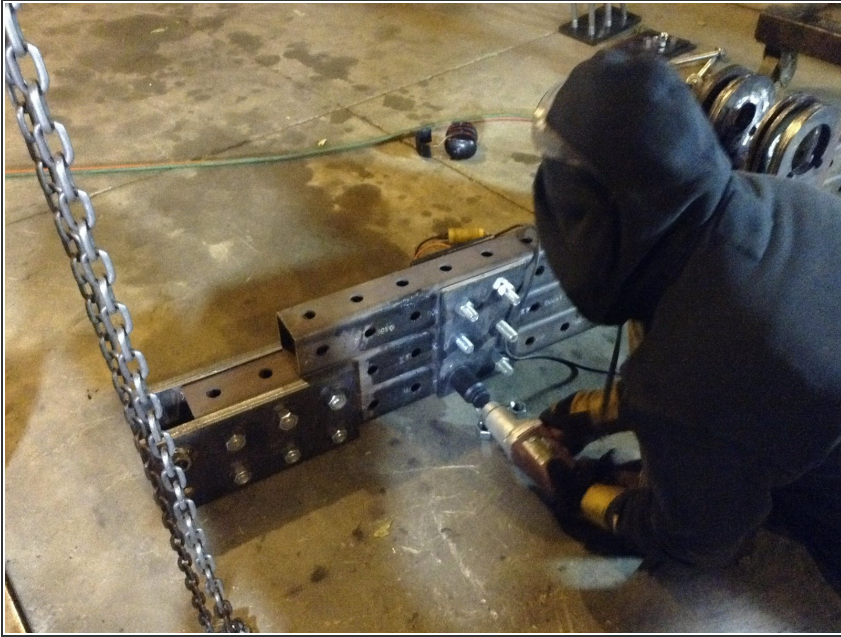
- Turn the upper frame upside down so that the pivot plates are resting on the ground.

Step 10



- Parts:
 - 2 1" x 15" threaded rod
 - 4 1" washers
 - 4 1" nuts
- Slide threaded rod through upper frame tubing. Put a washer and nut on each end.

Step 11



- Tighten all nuts and bolts except for the 4 that go through the pivot plates.