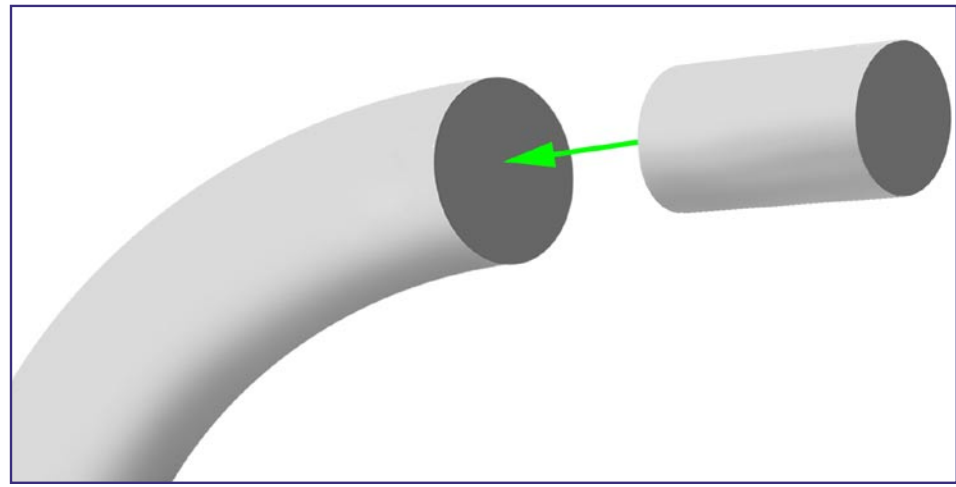
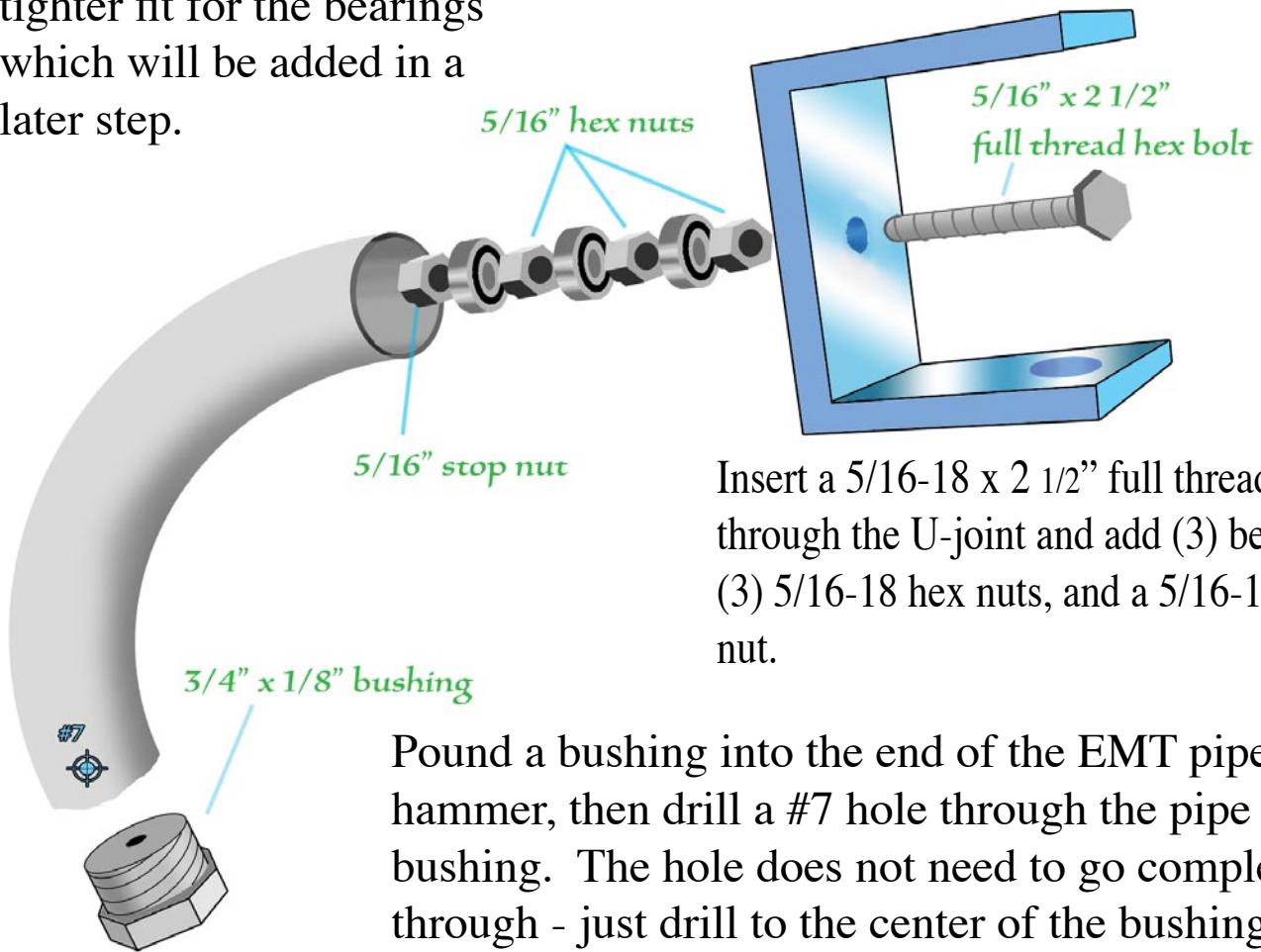


Cut the ends off the EMT pipe as shown. Insert the 2" piece of pipe cut from the monopod into the straighter end of the curved pipe by placing a piece of wood over it and pounding with a hammer.

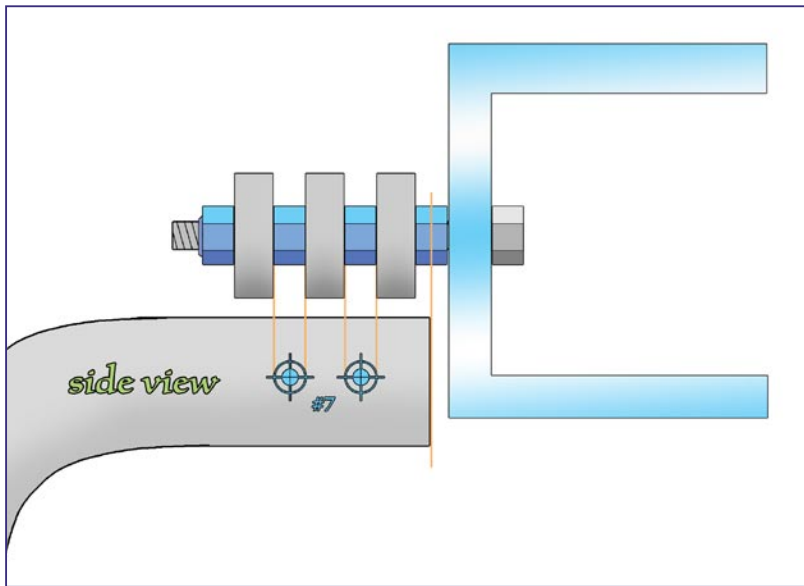


The smaller pipe acts as a reducer to create a tighter fit for the bearings which will be added in a later step.



Insert a 5/16-18 x 2 1/2" full thread hex bolt through the U-joint and add (3) bearings, (3) 5/16-18 hex nuts, and a 5/16-18 stop nut.

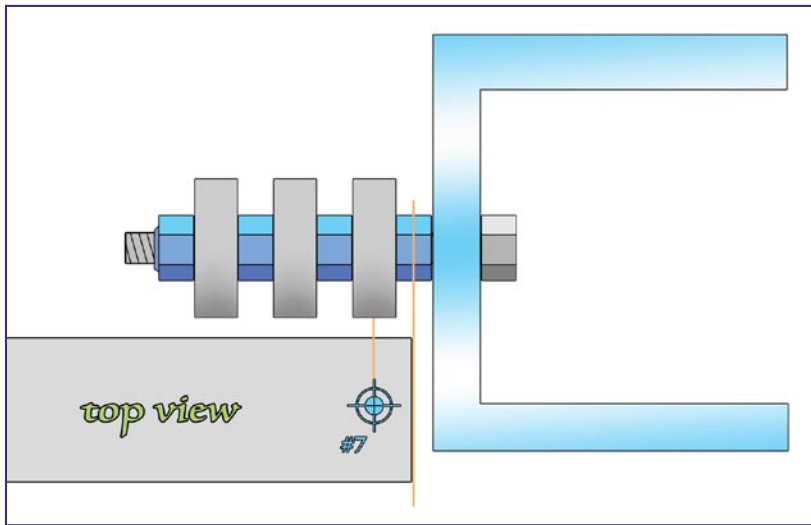
Pound a bushing into the end of the EMT pipe with a hammer, then drill a #7 hole through the pipe and the bushing. The hole does not need to go completely through - just drill to the center of the bushing.



To accurately find the hole placements for the gimbal handle, line up the end of the EMT pipe with the center of the first nut on the U-joint bearing assembly.

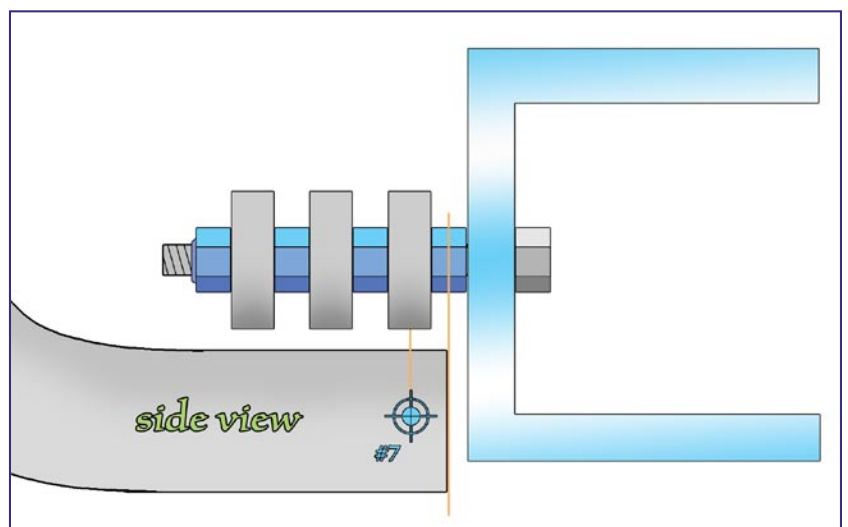
The space between the bearings should be about 1/4", just enough room to insert two 1/4-20 set screws. Mark four

lines on the EMT pipe that coincide with these spaces and centerpunch two points directly in the center of the lines. Drill two #7 holes through one side of the pipe only.

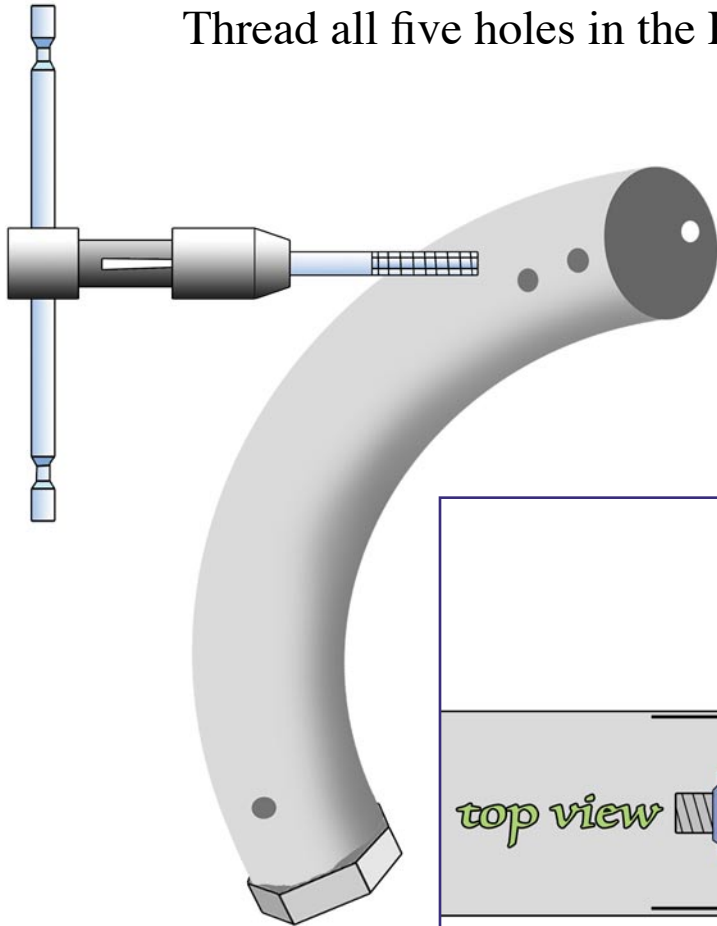


Now mark a point on the top of the EMT pipe that coincides with the center of the first bearing (make sure the front of the pipe is still lined up with the center of the first nut). Centerpunch the point and drill through one side only with a #7 drill bit.

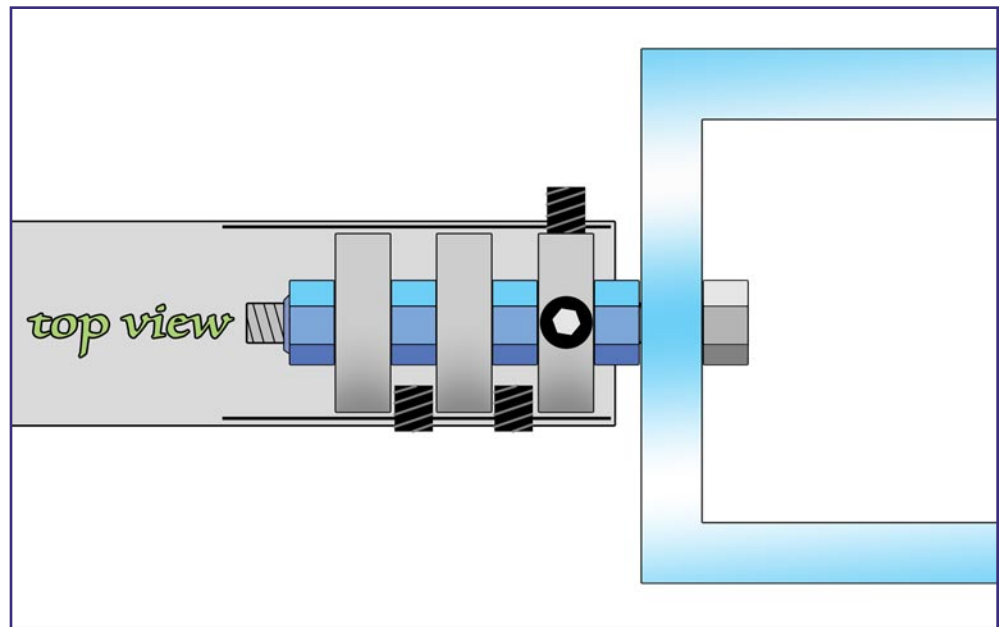
Mark a point on the other side of the EMT pipe that coincides with the center of the first bearing. Centerpunch and drill through one side only with a #7 drill bit.



Thread all five holes in the EMT pipe with a 1/4-20 tap.



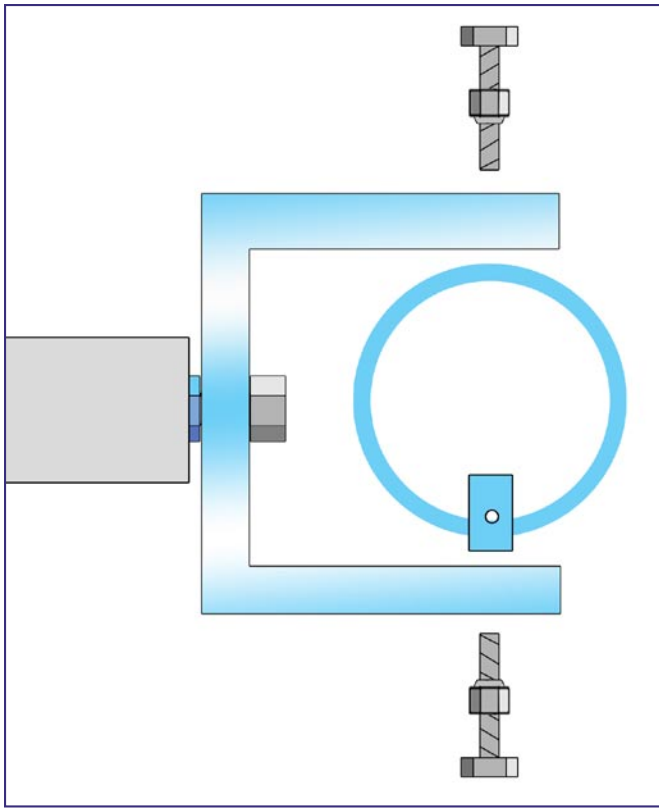
Insert the U-joint bearing assembly into the pipe.



First, screw in two 1/4-20 x 1/4" set screws into the

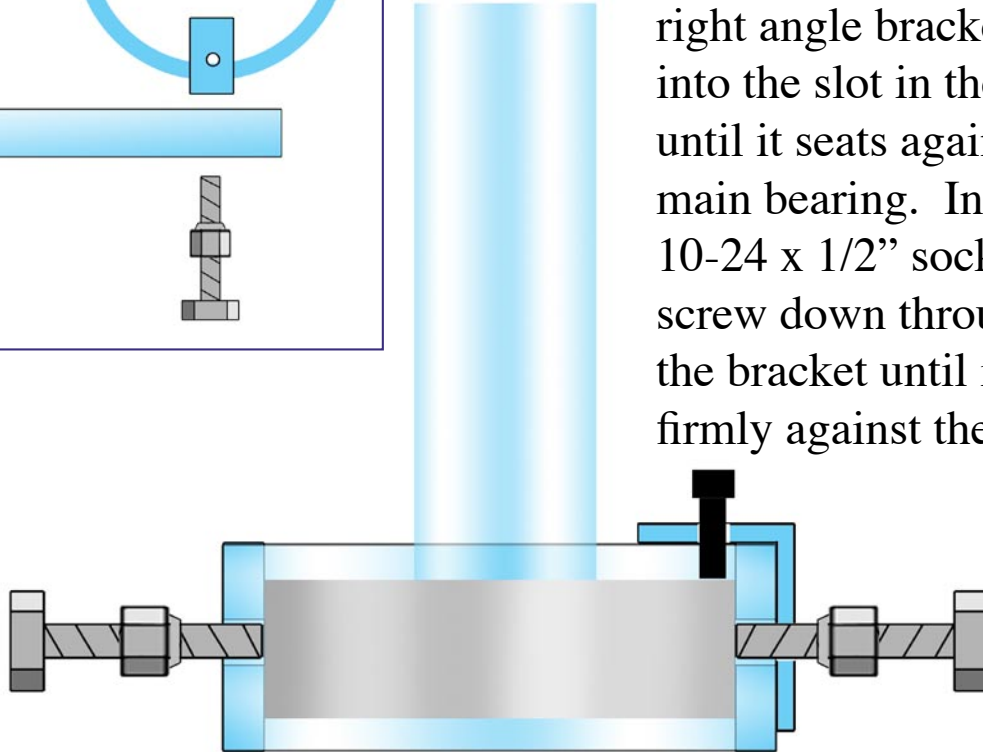
“spacer” holes. These keep the assembly from falling out of the pipe. If you tighten them too much, they will contact the nuts and the assembly will not turn. Next, insert two set screws onto the first bearing. These keep the assembly from wobbling around inside the pipe. If you tighten them too much, the bearing will distort and not turn freely. Spin the U-joint to make sure it rotates freely, then jiggle it to make sure it does not wobble around. Adjust the set screws if necessary. When satisfied, a bit of J-B weld can be used on each set screw to hold it in place. This step is optional due to its permanency.

Use a 1/4-20 x 1/2" socket head set screw for the hole in the bushing. This is used to lock the pipe to the arm, which eliminates any jolts that can occur while running with the rig.



Take two 5/16-18 x 1 1/2" full thread hex bolts and mount a 5/16-18 stop nut on each. Insert the bolts through the bearing holes in the U-joint.

Thread one directly into the main collar. Thread the other one through the right angle bracket and into the slot in the collar until it seats against the main bearing. Insert a 10-24 x 1/2" socket head screw down through the bracket until it seats firmly against the bearing.



This completes the assembly of the gimbal mechanism. Instructions for how to adjust the gimbal to achieve a dynamic balance are explained at the end of the book.

