

STEP TWO

Assemble 2 (two) vertical pinions, one that will support the Camera platform and the other for the control arm. (see illustration 003 at left)

For the pinions, you'll use a 12" piece of the threaded rod for each, one of the heat shrinkable insulator tubes, two bearings, two of the 1/2" steel tubing (or a suitable bushing with an I.D. of at least 5/16" and an O.D. of no more than 1/2") and 4 hex nuts and 2 lock washers.

Since this assembly will lock into the 7" struts, the steel tubing is necessary so the pinion will spin freely between the 2" screws. (see illustration 004**)

Make certain the distance between the outer edges of each bearing is exactly 3 7/8".

The insulator tube should be shrunk tightly and centered between the bearings. Your swivel line will wrap around this section. (see illustration 00**))

5 1/2"

3 7/8"

ILLUSTRATION 003

1. Mount syringe support arm 3" from top of rod and secure with nuts and lock washer.
2. Mount syringe presser arm using 6-32 machine screws, nuts and washers. (Note A)

ILLUSTRATION 006

When the 7" struts are assembled, the screws that hold the bearing joints will also lock the pinion inside the strut.

3. Insert bearing joint into hole in control arm
4. Take end nuts off of joint and sandwich bearing holder pieces together. Secure with 8-32 flathead machine screws, nuts and lock washers.
5. Put a hex nut and lock washer on the threaded rod about an inch down and insert the rod into the hole in the bearing holder.

Hold a hex nut in the gap between the holder and control arm and screw the rod into it till it just comes out the top. Tighten the lower nut against the holder making certain the syringe support arm and the presser arm are parallel.

6. Wrap a hose clamp around bearing joint and end of control arm to keep it tight

ILLUSTRATION 004

STEP THREE

Now it's time to cut up the 1" and 2" aluminum flat stock, the 1 1/2" aluminum L' channel, and the 1" aluminum square tubing. **Use the templates** on pages 6-9 for the exact sizes of each piece and the placements and sizes of the holes.

Two pieces of the 8' x 1" aluminum square tubing (illustration 005) will be left intact but you will need to drill a 7/8" hole, 5/8" from each end and one hole 16" from one end. Use a pilot hole first, followed by a saw bit since you will be drilling very close to the outside edges of the square tube.

5/8"
16"
ILLUSTRATION 005

STEP FOUR

Once you have cut out all the parts according to the templates, drilled the holes, and bent the bearing housing, assemble the control arm as shown below, in the order given.

Remember that the end nuts on the bearing joints go on last and the two syringe locking nuts go on after the syringes are in place.

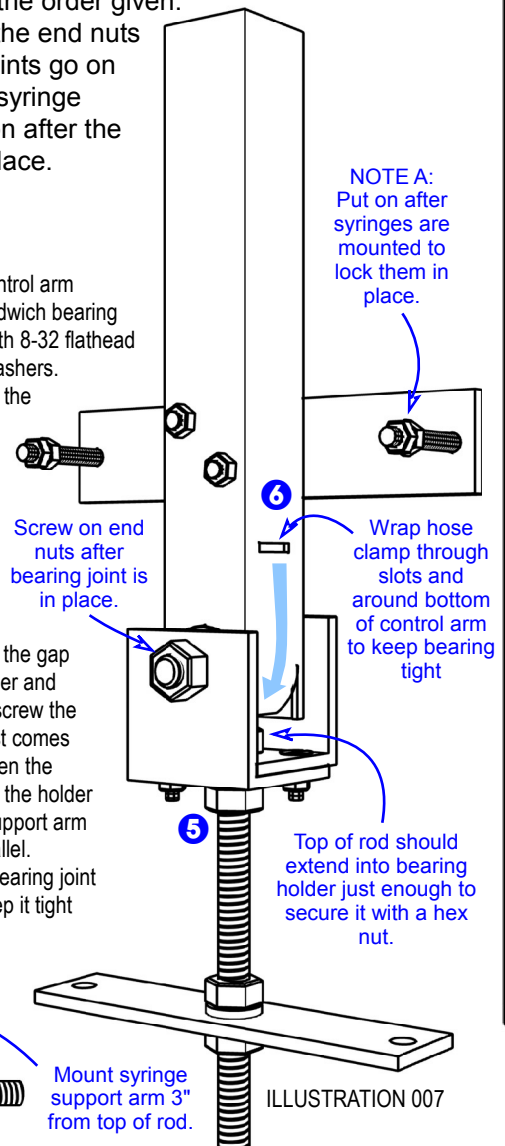


ILLUSTRATION 007