

Package Contents (Correlate with parts diagram below)

QTY: 1 Texas Star “Hub” Assembly (**Picture 21**)

QTY: 1 1.5”x.25” Pivot Tube Assembly (**Picture 12**)

QTY: 2 1”OD x .75” ID nylon bearing/sliders (**Picture 15**)

QTY: 1 Bent Bracket for Angle Insertion (**Picture 11**)

QTY: 1 Bent Bracket for Pivot Tube mount (**Picture 13**)

QTY: 1 .75” x 6” bolt (**Picture 14**)

QTY: 1 .75” Nylock Nut (**Picture 17**)

QTY: 2 .75” ID SAE Flat Washers (**Picture 16**)

QTY: 5 Knock-Off Paddles (6” or 8” depending on selection)
(**Picture 20**)

QTY: 5 Neodymium magnets (**Picture 5**)

QTY: 5 Magnet Pads (**Picture 4**)

QTY: 5 Recessed Bolts for Magnets (**Picture 8**)

QTY: 5 Small Nylock Nuts (**Picture 7**)

QTY: 5 Small Washers (**Picture 6**)

QTY: 5 ½” Steel retainer pieces (**Picture 18**)

QTY: 5 3/8” AR500 deflectors (**Picture 19**)

QTY: 10 Nut retaining brackets (**Picture 10**)

QTY: 20 7/16" nuts **(Picture 9)**

QTY: 10 7/16"x1" Grade 5 bolts **(Picture 1)**

QTY: 10 7/16"x1.25" Grade 5 bolts **(Picture 2)**

QTY: 30 7/16" Flat Washers **(Picture 3)**

ITEMS YOU MUST SOURCE

QTY: 5 1.5" x .25" x 20" (preferred – you can select size) Angle Iron Pieces

QTY: 1 1.5" x .25" x 46" Angle Iron for upright

You can choose your own materials to fabricate your base.

TOOLS / EQUIPMENT NEEDED

Welder

Flat Head Screwdriver

Socket wrenches / adjustable wrench

Small bottle of superglue

Parts Diagram



Step 1 – Fabricate pivot assembly

Rest Pivot Tube (Part 12) on top of Bent Bracket. Tack in to place. Once tacked, fully weld. *See Picture

Once assembly is welded, place on top of Bent Bracket for Angle Insertion (Part 11). Ensure welded pivot tube/bent bracket assembly is centered and positioned slightly forward. Tack in to place. Verify squareness, and fully weld. **YOU MUST NOT WELD IN TO THE ANGLE IRON SLOTS.** If you do, you won't be able to slide the angle iron in there.

Once cooled, use a hammer and a drift (or piece of wood) to drive the two Nylon Bearings (Part 15) in to both ends of the pivot tube. Take extra caution to ensure the bearings are square prior to driving them in to the pivot tube openings.



Step 2 – Weld on .75” x 6” “Pivot Bolt

It is recommended, but not necessary, to remove a small portion of the zinc coating on the bolt head prior to welding. With a grinder, gently grind off the zinc coating on the edges of the bolt head prior to welding.

Place bolt through (from the front) the rotating Hub assembly (Part 21). Ensure bolt head is fully seated and flush on the surface of the Hub assembly. Tack in to place with a welder. After verifying the bolt is fully seated and tack flush, take your welder and permanently weld the bolt head to the Hub per the illustration below.



STEP 3 – Manufacture “Arms”

Place each of the Nut Retaining Plates (Part 10) on a flat welding table. Position 7/16” Nuts (Part #9) in to each cut out and tack in to place. Ensure plates do not shift or move as the weld cools. Once all 20 nuts are tacked in to the 10 Nut Retaining Plates and you’ve verified they are flat, proceed to permanently weld them in to place. Use as little heat as possible and only weld about .25” on each side of the nut. See picture below.



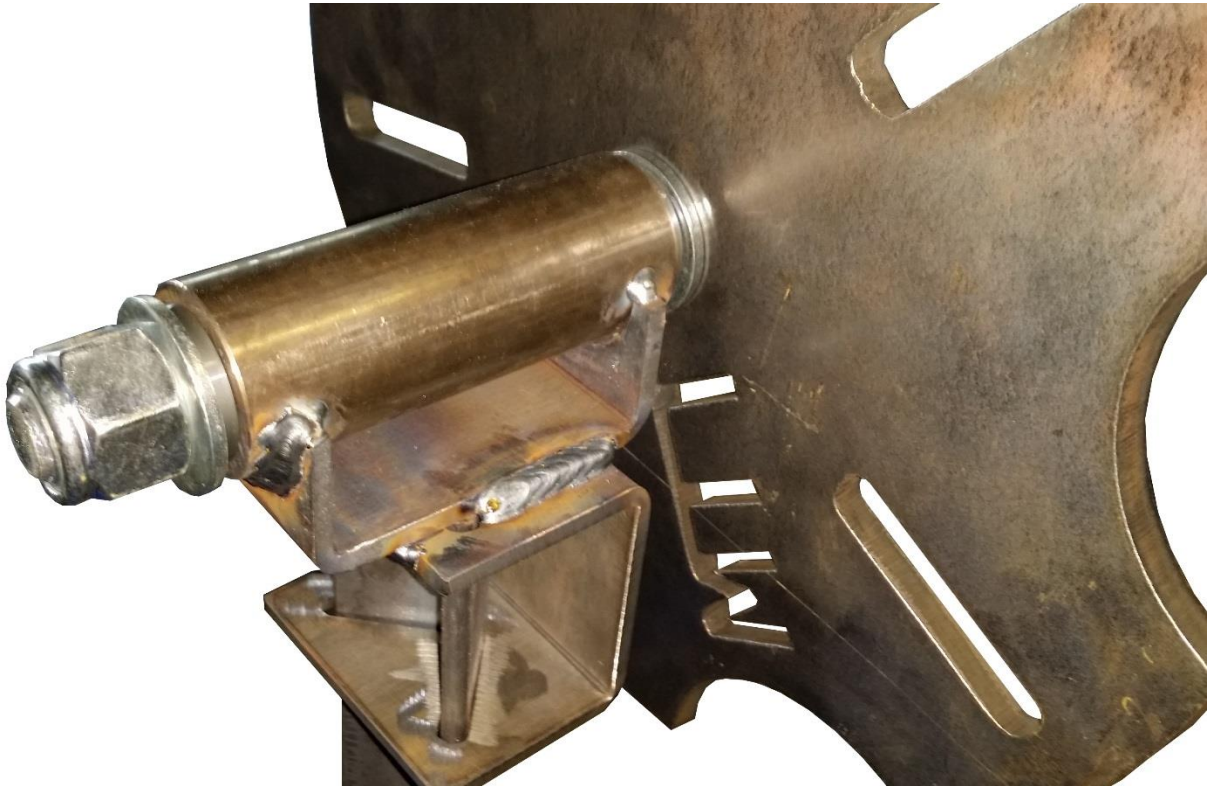
Once all 10 of the nut plates are completely welded, it’s time to weld the nut plates on to the arms of the Texas Star. We highly suggest cutting the arms to about 20” in total length, but you can certainly make them a little bit longer if you’d like. The arms **MUST** be made from 1.5” x .25” angle iron.

For the first arm, butt up the welded nut plate against the very edge of the angle iron and tack in to place. **YOU MUST ENSURE THE PROTRUDED NUTS ARE FACING DOWNWARD TOWARD THE ANGLE IRON CREASE. SEE PHOTO BELOW.** On the opposite side of the angle iron, you **MUST** position the welded nut plate 2” from the end and tack. Once measurements are verified. Proceed to welding with a slim profile weld. Repeat on the 4 remaining arms.



STEP 4: Position Pivot Assy and Hub on Vertical Angle Iron

At this point, you can place the welded .75" bolt and hub assembly through the pivot tube assembly. Once inserted, use supplied .75" washer (Part 16) and .75" Nylock Nut (Part 17) and secure hub assembly to pivot tube. **DO NOT OVER TIGHTEN!** Fixture should be snug, but still have enough "wobble room" to turn.



STEP 5: Attach Arms

From the back side, using supplied 7/16"x1" bolts (Part 1) and supplied 7/16" washers (Part 3), fasten each arm to the Texas Star Hub Assembly (Part 21). The portion of the arm with the Nut Plate welded to the very end of the angle iron is the part that needs to be mounted to the Texas Star Hub Assembly. Repeat until all arms are secured to Hub assembly.



STEP 6: Attach Paddle Holders

The last step of the assembly is preparing the paddle end of the assembly. Using the supplied Recessed Bolts (Part 8), washers (Part 6), and small nylock nuts (Part 7), affix the neodymium magnets (Part 5) to the AR500 Blast Deflector (Part 19) as pictured below. Take caution to NOT over-tighten the magnets as they could break due to over-torque. After all the magnets are secured, use some super glue to permanently secure the supplied magnet pads (Part 4) on top of the magnets.

This is important as the magnets could break without the use of these pads!



After the super glue has dried, the last step is mounting the paddle holders to the angle iron. Simply place the supplied 7/16"x1.5" bolts (Part 2) and washers (Part 3) through the ½" Steel Retainer (Part 18), and through the complete AR500 deflector. After the assembly is complete, it should then be fastened to the outer ends of the arms. Follow the sequence below...

Bolts > Washer > Steel Retainer > AR500 Deflector > Secure to outer edge of welded nut plates on arms.

FINAL ADJUSTMENTS

Depending on how square all your materials were during the construction of your DIY Texas Star, you may find that the paddle hit the upright piece of angle iron you used to construction your Texas Star. We have supplied additional washers to use as "shims", if needed. Once you determine which arms are hitting the upright, simply remove the outer arm bolt and install a washer(s) as shims to give you the necessary clearance for your DIY star to spin freely.

Have questions? Give us a call or shoot us an email any time. We'd love to help!