

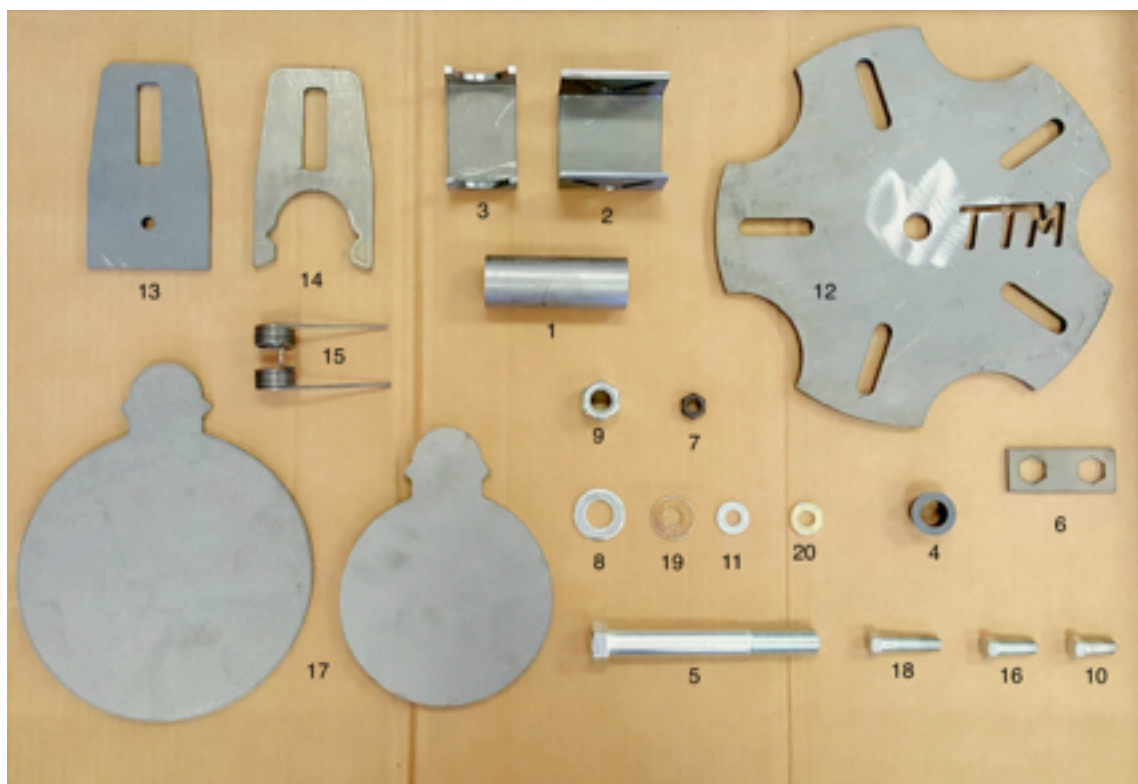


DIY TEXAS STAR TARGET ASSEMBLY GUIDE

Spartan Armor Systems/The Target Man
(520)396-3335

www.spartanarmorsystems.com

info@spartanarmorsystems.com



- (x1) 1.5" x .25" Pivot Tube Assembly (Picture 1)
- (x1) Bent Bracket for Angle Insertion (Picture 2)
- (x1) Bent Bracket for Pivot Tube Mount (Picture 3)
- (x2) 1" OD x .75"ID Nylon bearing/sliders (Picture 4)
- (x1) .75" x 6" Bolt (Picture 5)
- (x10) Nut Retaining Brackets (Picture 6)
- (x20) 7/16" Nuts (Picture 7)
- (x2) .75" ID SAE Flat Washers (Picture 8)
- (x1) .75" Nylock Nut (Picture 9)
- (x10) 7/16" x 1" Grade 5 Bolts (Picture 10)
- (x20) 7/16" Flat Washers (Picture 11)
- (x1) Texas Star "Hub" (Picture 12)
- (x5) 3/8" AR500 Deflectors (Picture 13)
- (x5) 3/8" Steel Retainer Pieces (Picture 14)
- (x5) Paddle Retaining Springs (Picture 15)
- (x5) 7/16" x 1.25" Grade 5 Bolts (Picture 16)
- (x5) Knock off Paddles 6" or 8" (Picture 17)
- (x5) 7/16-14 x 1 3/4" Grade 5 Hex Head Cap Screw Zinc (Picture 18)
- (x5) 7/16" Flat Washer Silver (Picture 19)
- (x5) 7/16" Super 9 SAE Flat Washer Yellow Zinc (Picture 20)

Package Contents:

Items you must source:

(x5) 1.5" x .25 x 20" (preferred—you can select size) Angle Iron Pieces

(x1) 1.5" x .25" x 46" Angle Iron for upright. You can use your own materials to fabricate your base.

Tools/Equipment Needed:

- Welder
- Flat Head Screwdriver
- Socket wrenches/adjustable wrench



Step 1—Fabricate Pivot Assembly

Rest Pivot Tube (Picture 1) on top of Bent Bracket. Tack into place. Once tacked, fully weld. *See picture below

Once assembly is welded, place on top of Bent Bracket for Angle Insertion (Picture 2). Ensure pivot tube/bent bracket assembly is centered, exactly as shown in picture, pivot tube is offset to the front. Tack into place. Verify squareness, and fully weld. **YOU MUST NOT WELD INTO THE ANGLE IRON SLOTS.** If you do, you won't be able to slide the angle iron in there.

Once cooled, use hammer and drift (or piece of wood) to drive the two Nylon Bearings (Picture 4) into both ends of the pivot tube. Take extra caution to ensure the bearings are square prior to driving them into the pivot tube openings.



Step 2—Weld on .74” 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 the bolt head prior to welding. This makes it easier to weld.

Place bolt through (from the front) the rotating Hub assembly (Picture 12). Ensure bolt head is fully seated and flush on the surface of the Hub assembly. Tack into place with welder. After verifying the bolt is fully seated and flush, take your welder and permanently weld the bolt head to the Hub. *See picture below



Step 3—Manufacture “Arms”

Place each of the Nut Retaining Plates (Picture 6) on a flat welding table. Position 7/16” Nuts (Picture 7) into each cut and tack into place. Ensure plates do not shift or move as the weld cools. Once all 20 nuts are tacked into the 10 Nut Retaining Plates and you’ve verified they are flat, proceed to permanently weld them into place. Use as little heat as possible and only weld about .25” on each side of the nut. *See pictures 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 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 into place. **YOU MUST ENSURE THE PROTRUDED NUTS ARE FACING DOWNWARD TOWARD THE ANGLE IRON CREASE.** *See picture below. On the opposite side of the angle iron, you **MUST** position the welded nut plate 2” from the end tack. Once measurements are verified, proceed to welding with slim profile weld. Repeat on the four remaining arms.



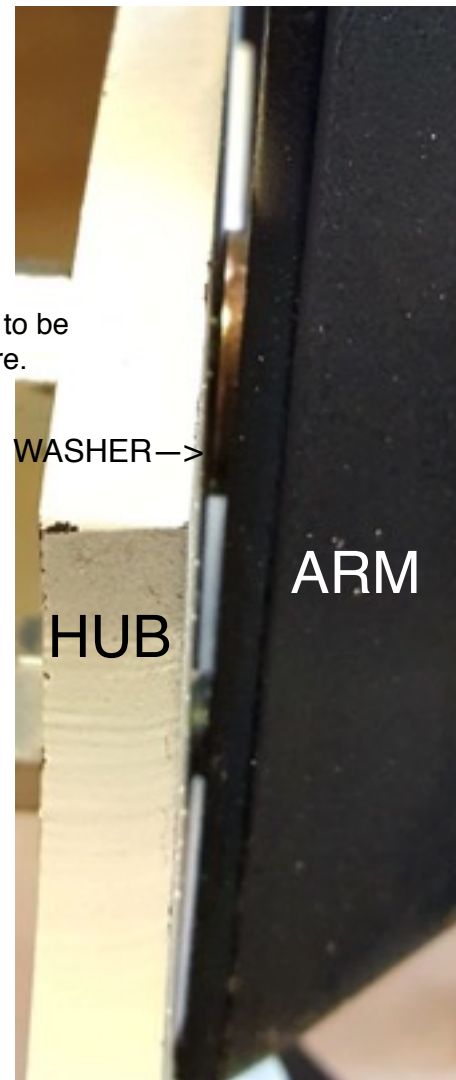
Step 4—Position Pivot Assembly and Hub on Vertical Angle Iron

At this point, you can place the welded .75" bolt and hub assembly through the pivot tube assembly. Once inserted, use supplied .74" washer (Picture 8) and .75" Nylock Nut (Picture 9) and secure hub assembly to pivot tube. **DO NOT OVER TIGHTEN!** Fixture should be snug, but still have enough "wobble room" to turn.



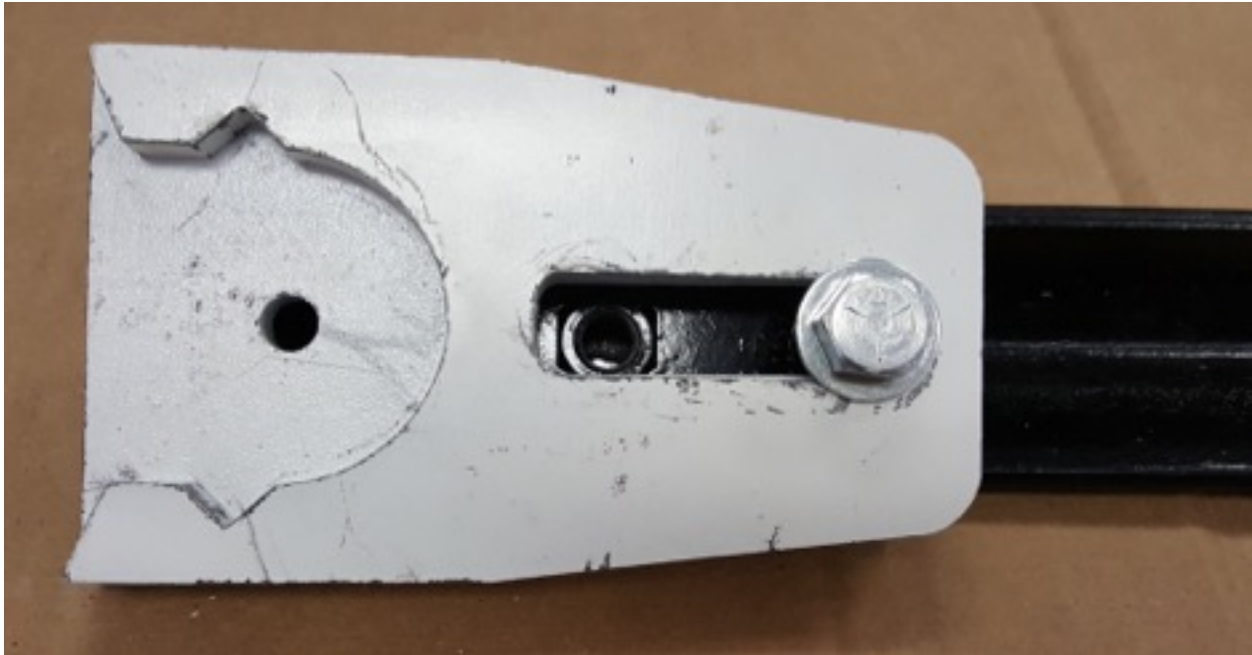
Step 5—Attach Arms

From the back side, using supplied 7/16" x 1" bolts (Picture 10), 7/16" washers (Picture 8) and the 7/16" washer (Picture 20). You will attach it on in that order. The bolt goes with the 7/16" washer (Picture 8) on the backside, and the 7/16" washer (Picture 20) goes in between the hub and the arm. Fasten each arm to the Texas Star Hub Assembly (Picture 12). The reason why the washer is placed there is to angle the arms out so that the retaining springs clear the upright support. 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 1 — Attaching Paddle Holder

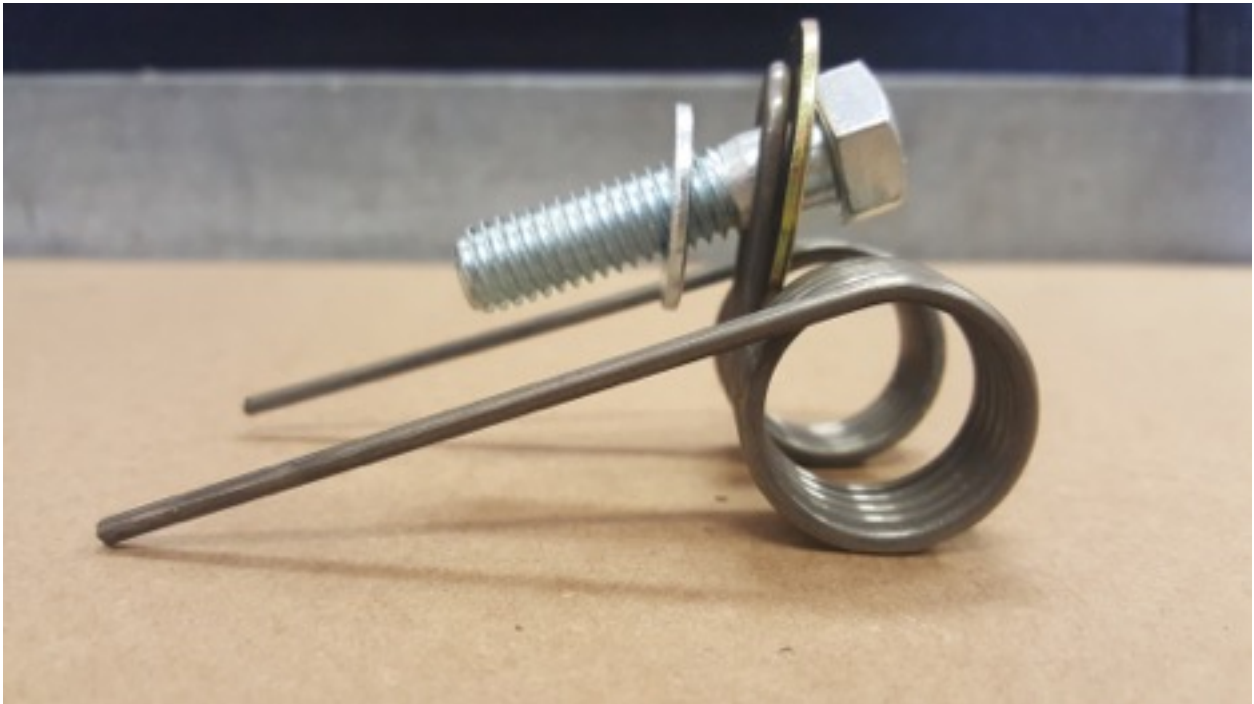
Place the 7/16" x 1.25" Grade 5 Bolt (Picture 16) into the inside of the AR500 Deflector and the Retainer piece closest to the arm. Fasten down the 7/16" x 1.25" bolt to hold the paddle in place on the arm. *See picture below



Attaching Paddle Holders

Step 1 – Assembling Spring Together

Assemble big washer first onto the required screw followed by the spring and small washer. *See picture below



Step 2—Spring Attachment

Screw must be slightly tightened with spring legs facing away from installed position. (this will allow easier installation as the spring forces it won't be activated or as strong as facing the other way)



Step 3—Spring Placement

Once the screw is tightened slightly, rotate the spring 180 degrees making the spring sit where the paddles sit. *See picture below



Step 4—Finishing Spring Attachment

Tighten the screw fully in to place. Make sure the spring is sitting flush.



Step 5—Attaching Paddles

Move legs by hand side to side to install the paddle. Once the paddle is installed move the legs back and your target is now installed.



Finished Product! If you have any questions please feel free to give us a call or shoot us an email and we will be more then willing to help you!

