## **Chassis Assembly**

## Part 1

Connect the two angle aluminum that have 4 holes using 6x32x1/4" bolts and 6x32 nuts. Have the nut on the side by the hole.



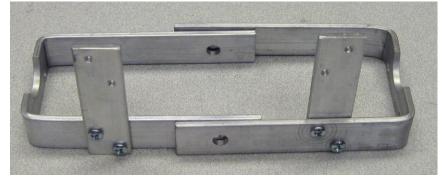
Remove the blue protective film from the Plexiglas. Place 6x32x1/2" bolts through the 3 ½" angle aluminum and place the Plexiglas over the bolts.



Place the angle aluminum as shown. The piece with the center hole is on one end (the front) and the double piece is on the other. Note the location of the screws on the rear piece. Secure by screwing four 7/8" female-female standoffs onto the 6x32x1/2" bolts on the front section and with two 1 ½" female-male standoffs on the rear.

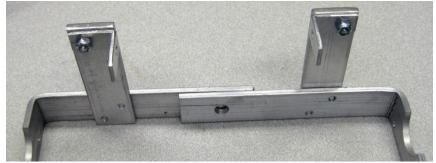


Mount the shock towers to the sway bars as shown. The view is from the front of the CEENBot. The half-moon cutouts are to the top. The left shock tower is mounted by screwing two 6x32x1/4" bolts



into the threaded sway bar. The right shock tower is placed on the inside of the sway bar and mounted by screwing the 6x32x1/4" bolts into the threaded shock tower.

Mount the 3/8" angle aluminum to the tops of the shock towers using 4x40x3/8" bolts and nylon locking nuts.



Thread the stabilizer bar ends onto the 4x40 allthread. Screw both ends until 1 1/8" allthread remains visible.



Place the 8x32x1" bolt through the shock mounting plate and screw an 8x32 nut on it. Do not tighten yet. Thread the bolt into the locking collar far enough to stay but not into the center area.



Mount the sway bars to the shock mounting plate with 4x40x1/2" screws and 4x40 nylon locking nuts.



## Assemble the parts for the Kingpin assembly

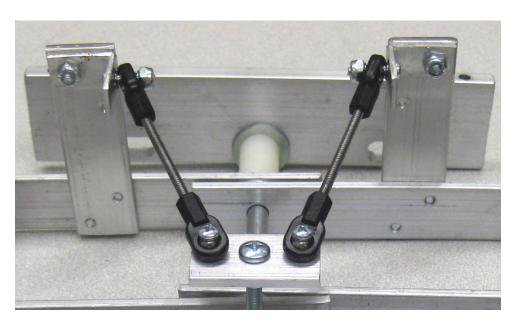
- ¼"x5" machine bolt (kingpin)
- ¼" washer
- Sensor mounting plate
- ¼" washer
- 1" nylon spacer
- Sway bar (left side)
- ¼" washer
- Sway bar (right side)
- Sway bar (right side)
- ¼" washer
- Sway bar (left side)
- Locking collar
- ¼"x24 nut



Assemble kingpin parts. Tighten nut so that it is snug but the sway bars still can move freely.



Attach the stabilizers to the shock towers using 4x40x1/2" bolts and locking nylon nuts. You will need to adjust the lengths of the stabilizers so that the mounting plate is parallel to the sway bars. Tighten the 1" bolt in the lock collar.



Attach the tray to the kingpin and secure with a ¼"x24 hex nut. Tighten firmly



