

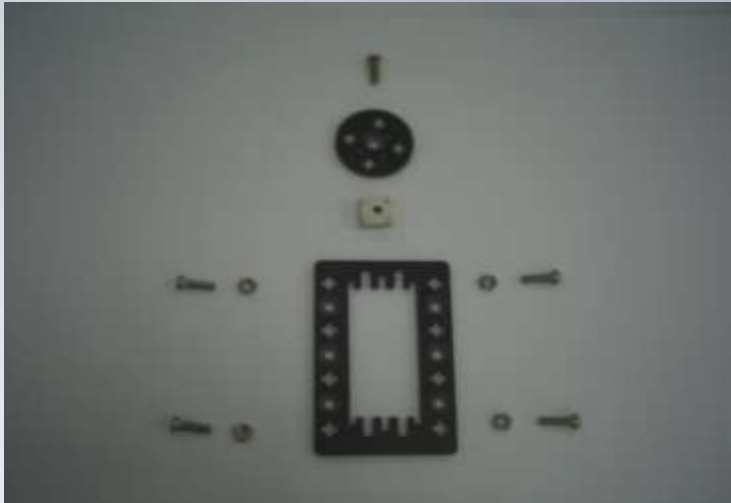


Assembly for MTS1 and MTS2

# What MTS does?

- MTS( Mounting Shell) are designed for servos to connect with LEGO standard bricks.
- MTS1 will provide basic linkage with LEGO bricks.
- Combine with MTS2 we are able to form a symmetrical supporting axis.
- MTS1 and MTS2 can be purchased separately depends on the application.

# The contain of MTS1 and MTS2



MTS1 contains:

1. Upper plate
2. Upper disk
3. Aluminum joint
4. M3x10mm flat screw
5. M3x10mm roundhead screw x4
6. M3 nut x4



MTS2 contains:

1. Lower plate
2. Lower disk
3. bearing
4. M3x45mm flat screw x4
5. M3x10mm roundhead screw x1
6. M3 nut x1

# Assembly using MTS1 only

1.



1. Place the top plate on top of the servo and secure with 4 M3 screws and 4 M3 nuts.
2. Place the aluminum joint on the out put shift.
3. Place the upper disk on the joint, and secure with M3 flat screw.

2.



3.



# 2 ways to combine with LEGO brick



1. Using **LEGO Technic Axle Pin with Friction**(blue one), plug the cross side into the **upper plate** of MTS1, and fit the round side into the **Technic Liftarm**.



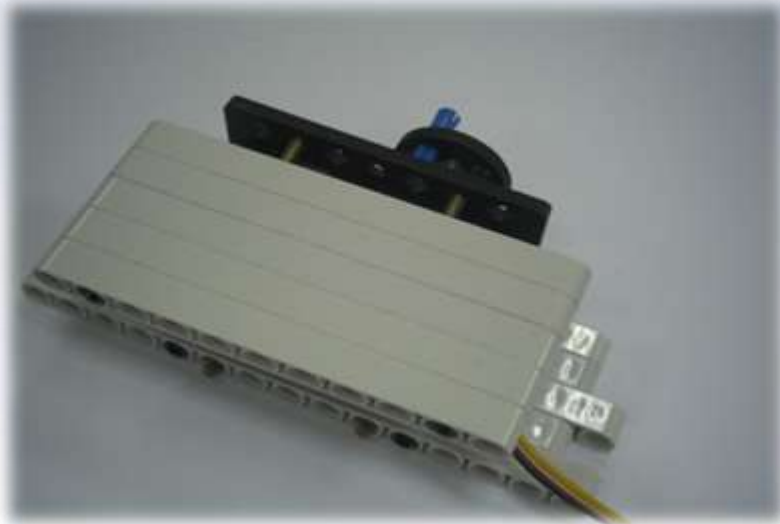
2. Using M3 flat head screw and nut (**Not include in MTS package**) to fix the **upper plate** and **Technic Liftarm**. The standard M3 flat head screw and nut can fit perfectly with LEGO Liftarm.



# Forming a symmetrical supporting axis with MTS2



1. Need to use 5pcs LEGO leftarm to form side structure, for both side we need 2 side structures.



2. Insert the 4 M3x45mm flat head screw through upper plate and side structures.



3. Put the lower plate on, and tighten the screws from upper plate.

Be careful:

1. Make sure the symmetrical axis is on the same side of output shift.
2. Pay attention to the direction of the push nut on the lower plate, the side with smaller nut size face to upper plate.



**Face to out side**



**Face to upper plate**



4. Push the bearing into the lower disk, flange face out side.  
secure the M3x10mm screw and  
the M3 nut as shown.

Pay attention to  
the direction







Secure the lower disk assembled on the lower plate.

Both side of the unit are clear for adding more LEGO standard parts.

# An other method to link plates



Since both plate are using 3M screw standard, it's possible to use standard 3M hex spacer for assemble MTS.

4 pcs of 40mm long, M3 hex spacer and 4 M3x8 flat head screw can form the unit as shown on the left.

Longer hex spacer can be used depends on the need of user.

**These additional hex spacers and flat screws are not included in MTS1 nor MTS2.**