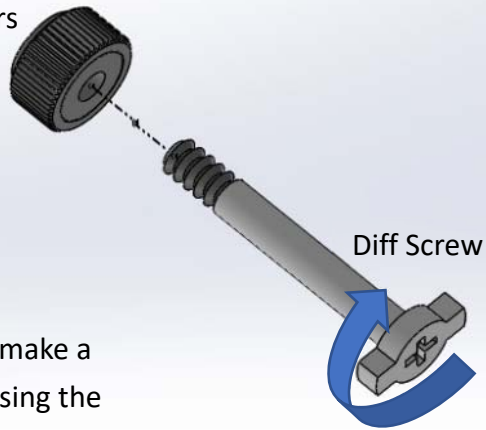


The logo for Atomic BZ3 features the word "ATOMIC" in a bold, black, sans-serif font. A stylized yellow and grey atom symbol is positioned behind the letters "O" and "M". Below "ATOMIC" is the model name "BZ3" in a large, bold, italicized font. The "B" and "Z" are dark grey, while the "3" is a vibrant yellow with a gradient effect.

ATOMIC BZ3

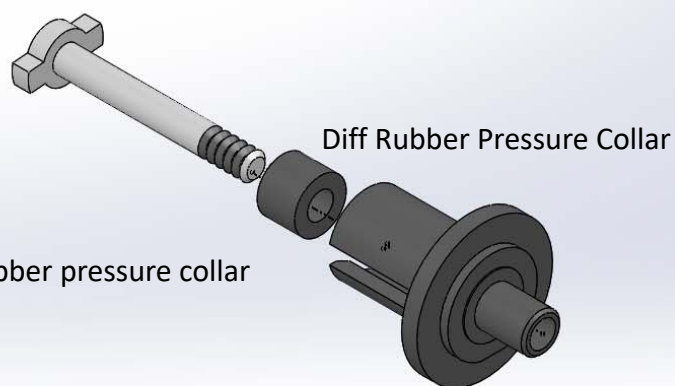
Step 1 - Prepare the Diff Lock Nut

Hold Diff Lock Nut by pliers



Before assembling the Ball Diff, make a thread to the lock nut first, by using the diff screw.

Step 1.1 - Diff Assembly

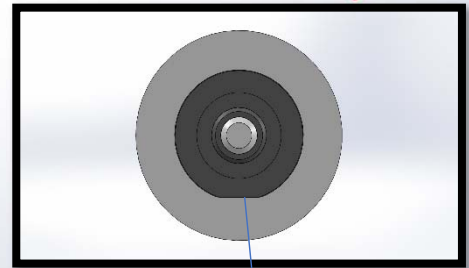


Insert the diff screw and rubber pressure collar into the diff cup

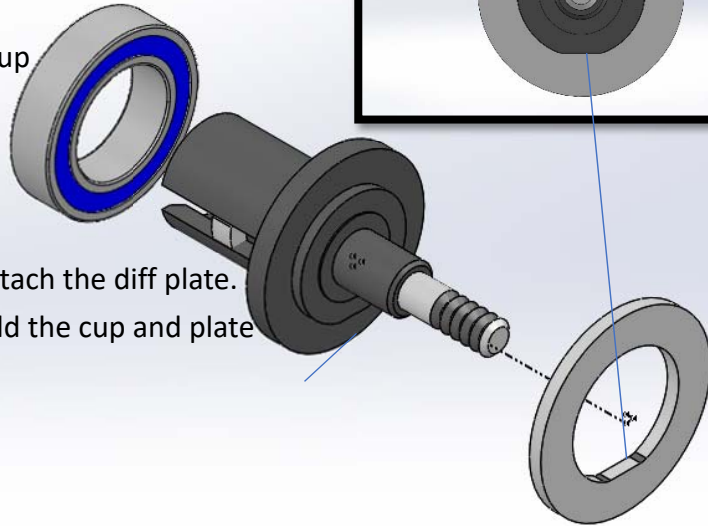
Step 1.2 - Diff Assembly

Insert the Bearing (6*10*3) to the drive cup

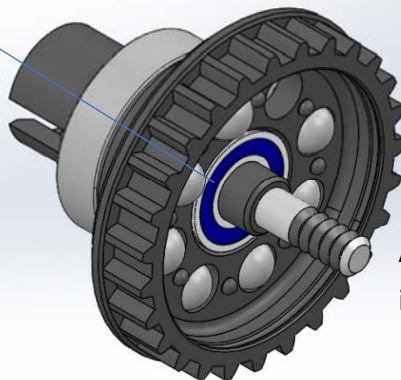
Attention: the "D" Shape



Apply ball diff grease to the cup and attach the diff plate.
Diff grease is act as the adhesive to hold the cup and plate together.



Insert the Bearing (3*6*2) to the pulley, and attach pulley to the diff cup

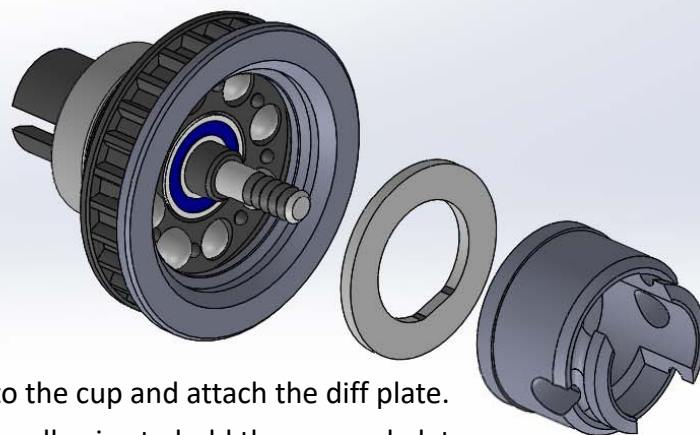
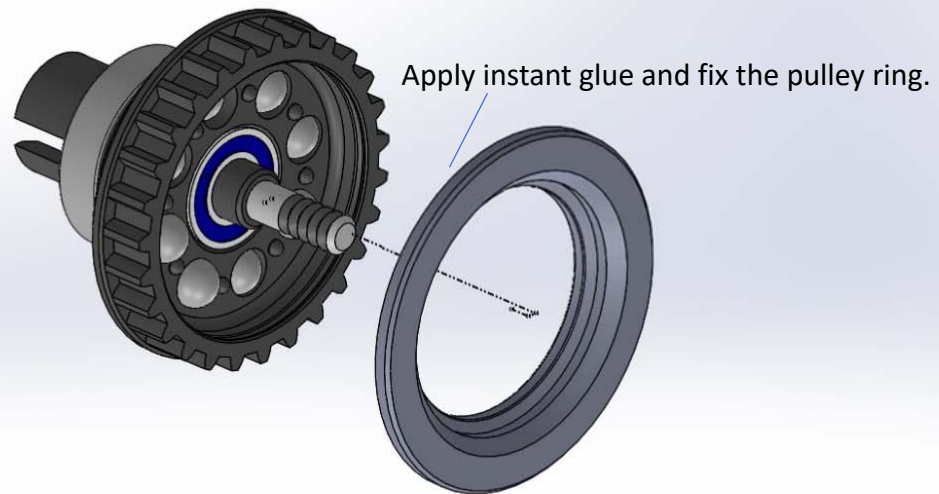


2.381mm balls



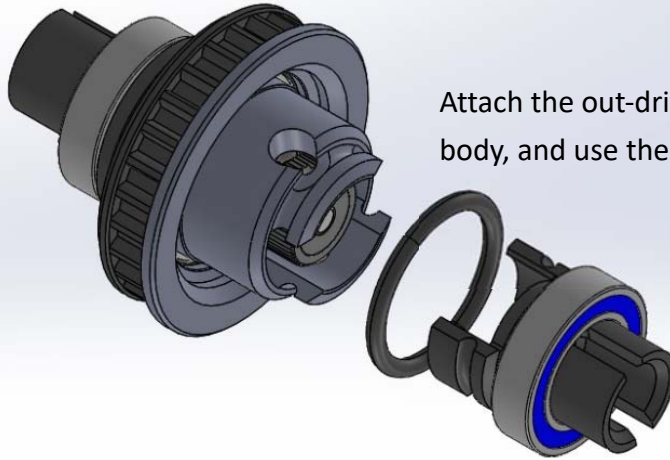
Apply Ball Diff Grease the balls and insert them to the diff pulley.

Step 1.3 - Diff Assembly



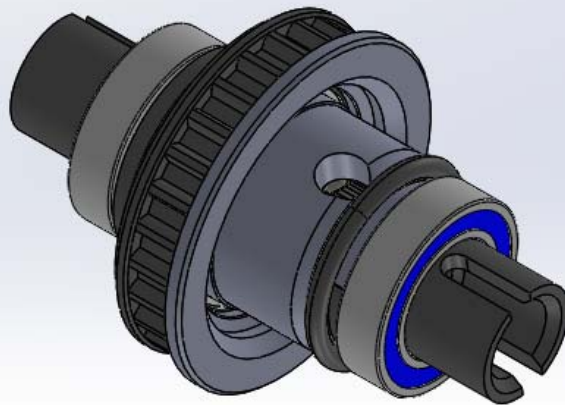
Apply ball diff grease to the cup and attach the diff plate.
Diff grease is act as the adhesive to hold the cup and plate together.

Step 1.4 - Ball Diff Assemble Finished



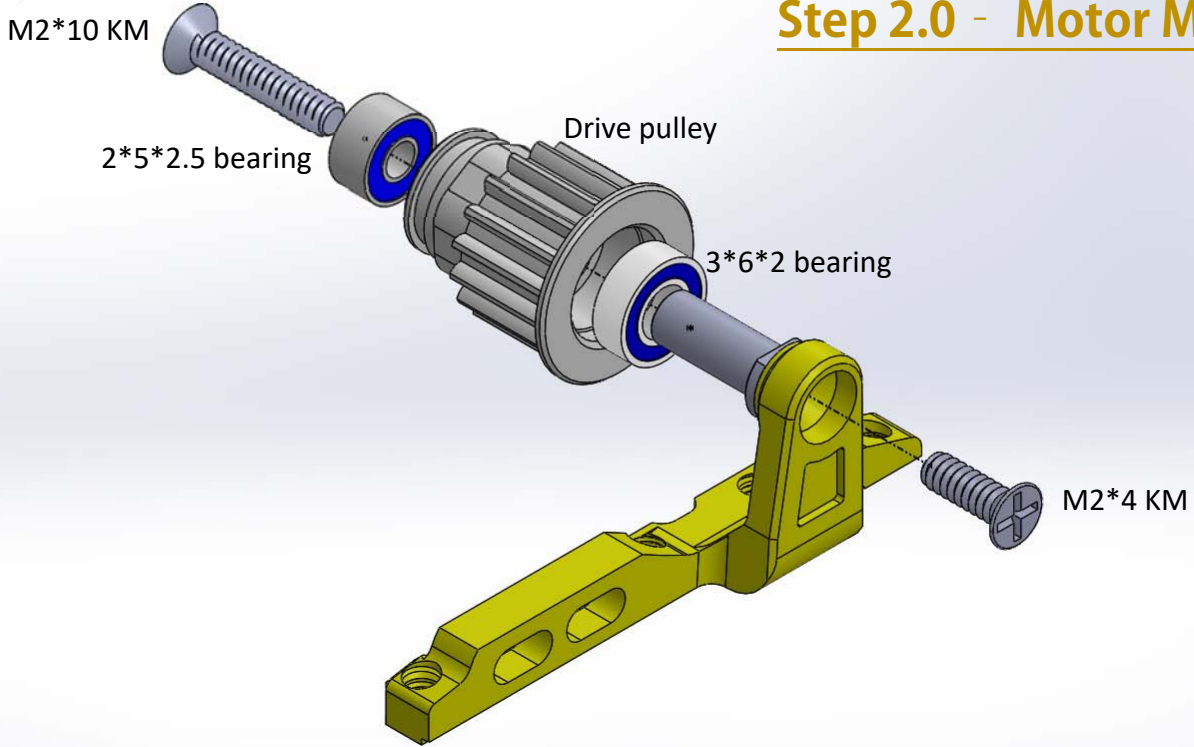
Attach the out-drive cup to the ball diff body, and use the O-ring to secure the cup.

Install the 6*10*3 bearing.



Now build the second diff, repeat above steps.

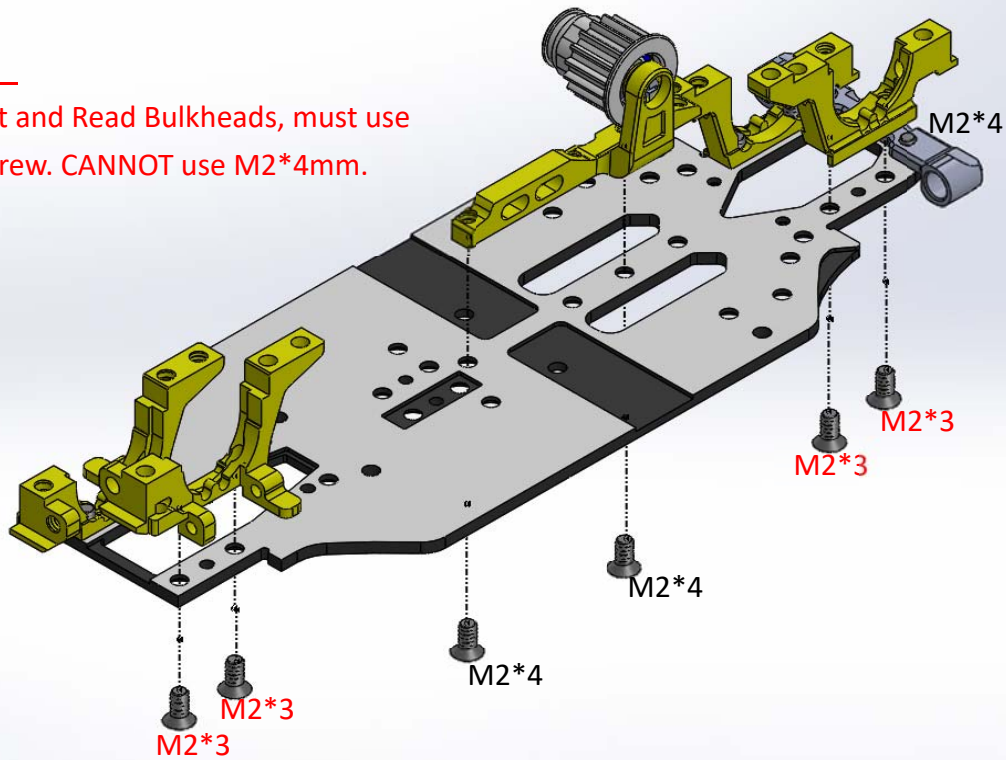
Step 2.0 - Motor Mount



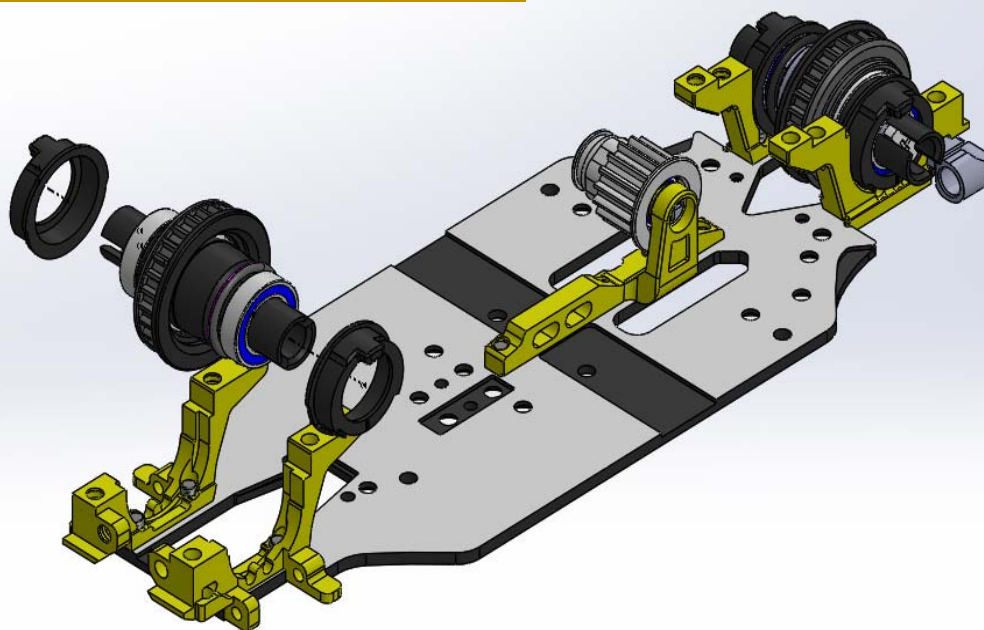
Step 3.0 - Bulkheads

Caution:

For Front and Rear Bulkheads, must use M2*3 screw. CANNOT use M2*4mm.



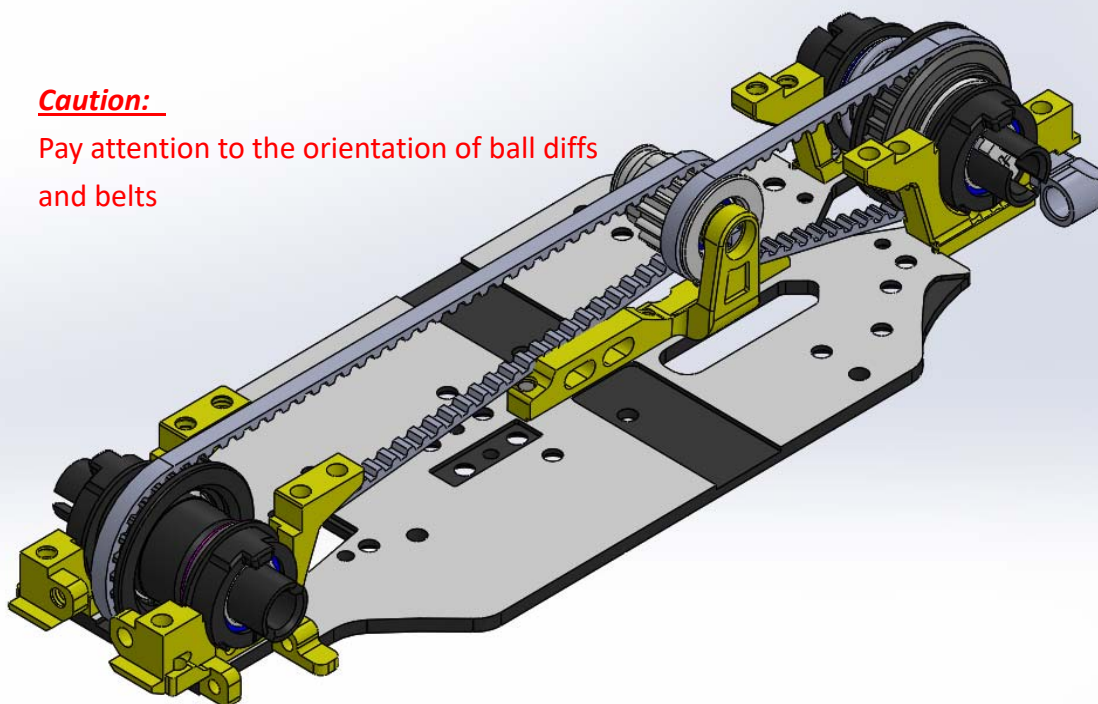
Step 4.0 - Belt and Ball Diff



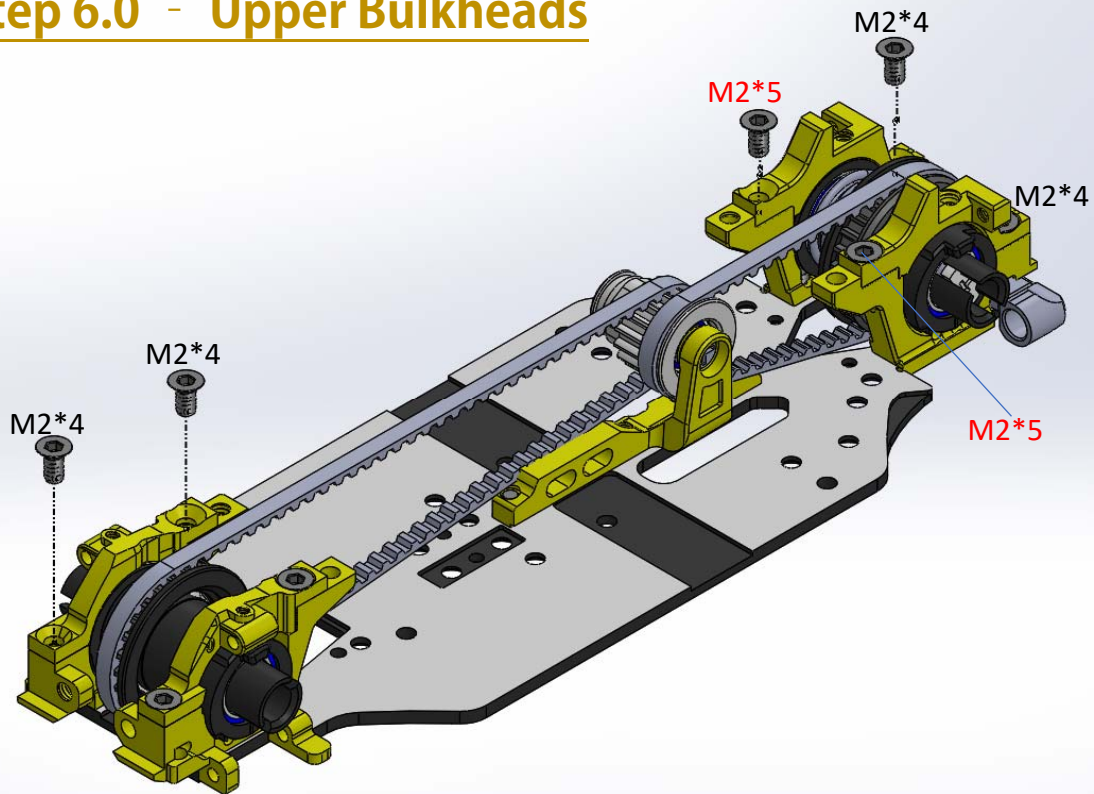
Step 5.0 - Fixing Belts

Caution:

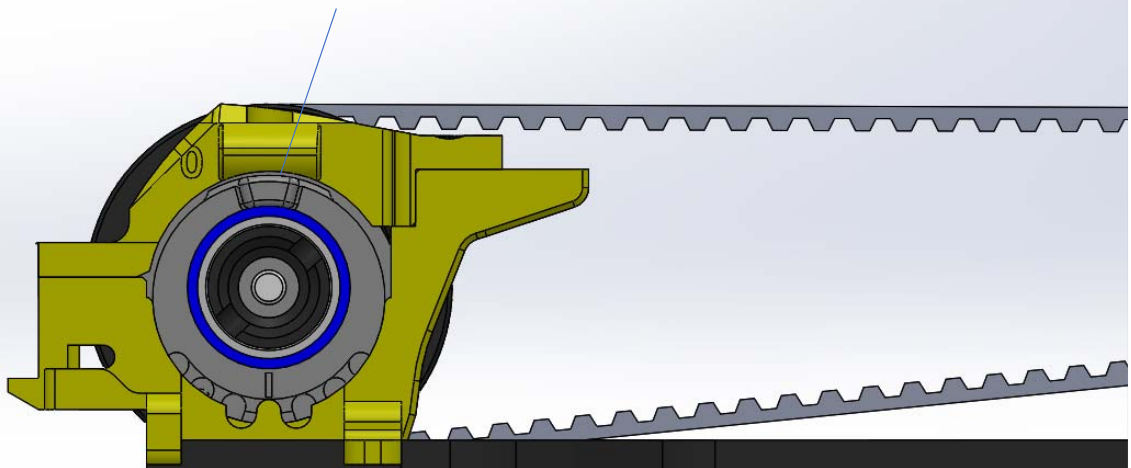
Pay attention to the orientation of ball diffs and belts



Step 6.0 - Upper Bulkheads



Adjust the bearing hub position to adjust belt tension.
Middle position is a good start.

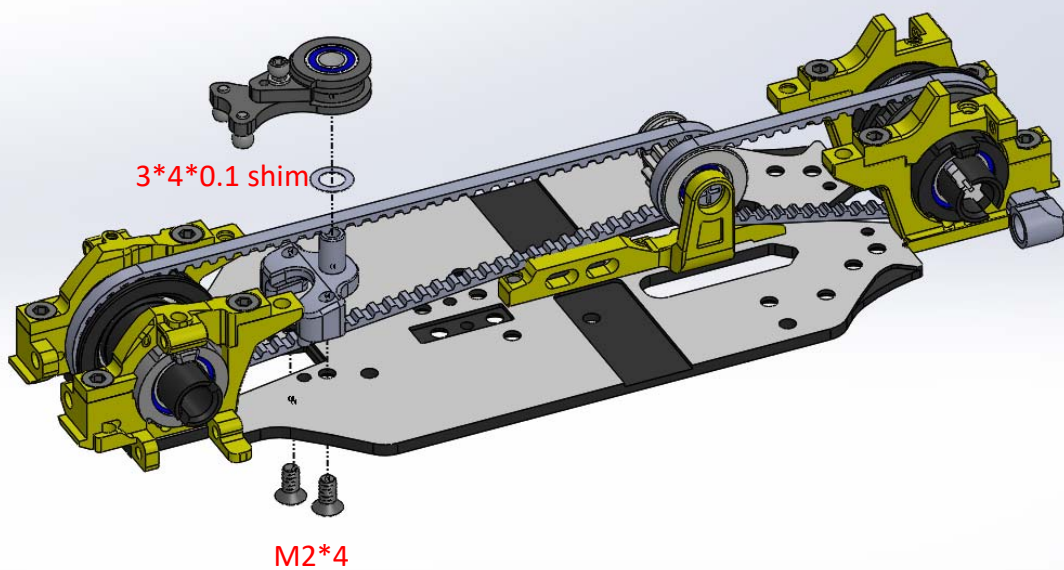


Step 7.0 - Steering Crank

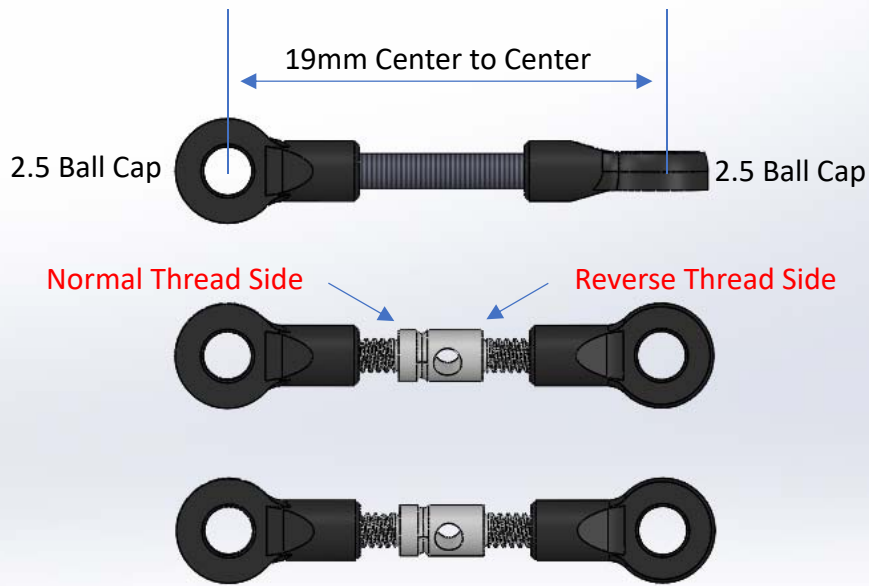
Solid Steering crank (stock)



Step 8.0 - Steering Crank Support



Step 9.0 - Steering Linkages

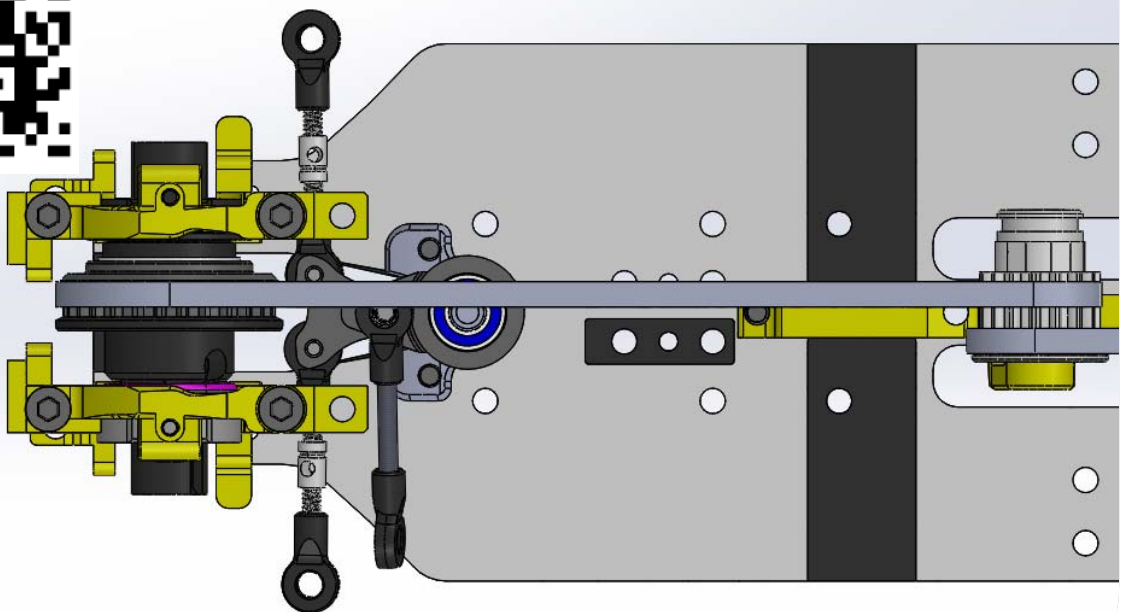


Make 3 Linkages as above, approximately 19mm center to center long.

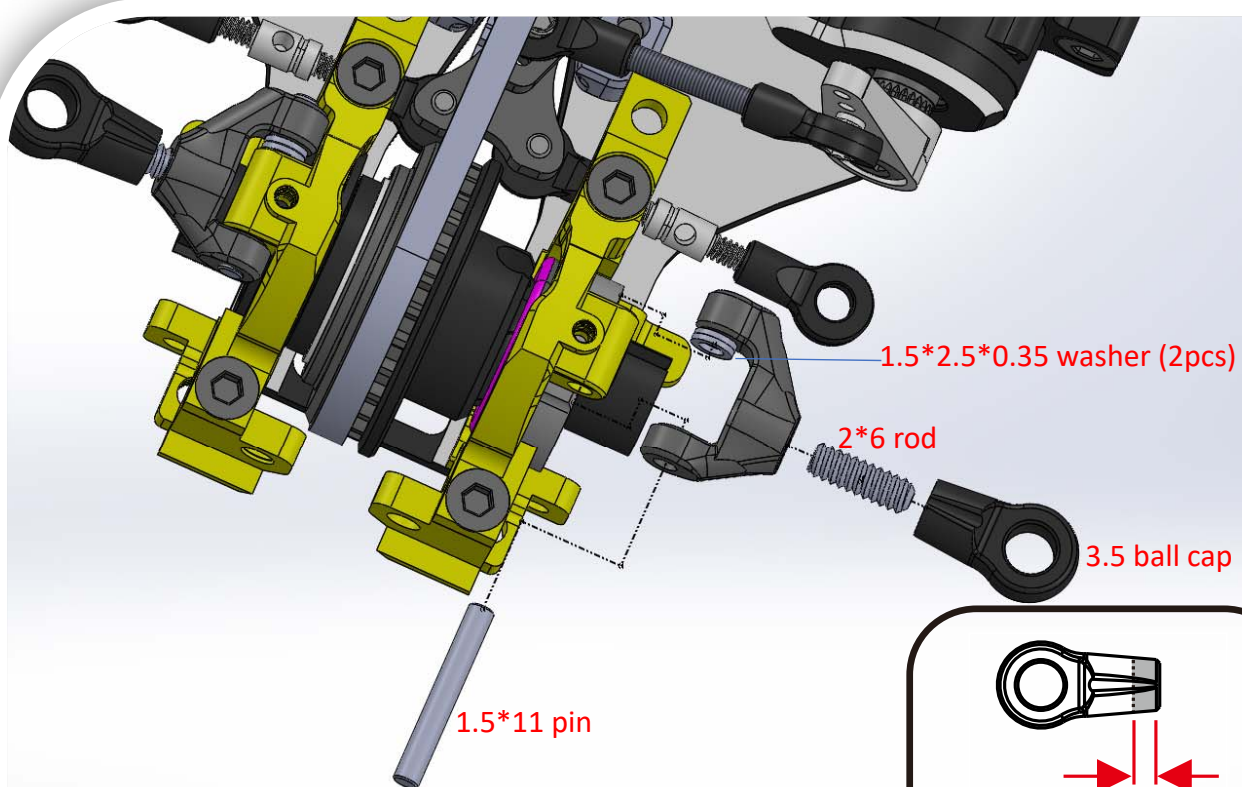
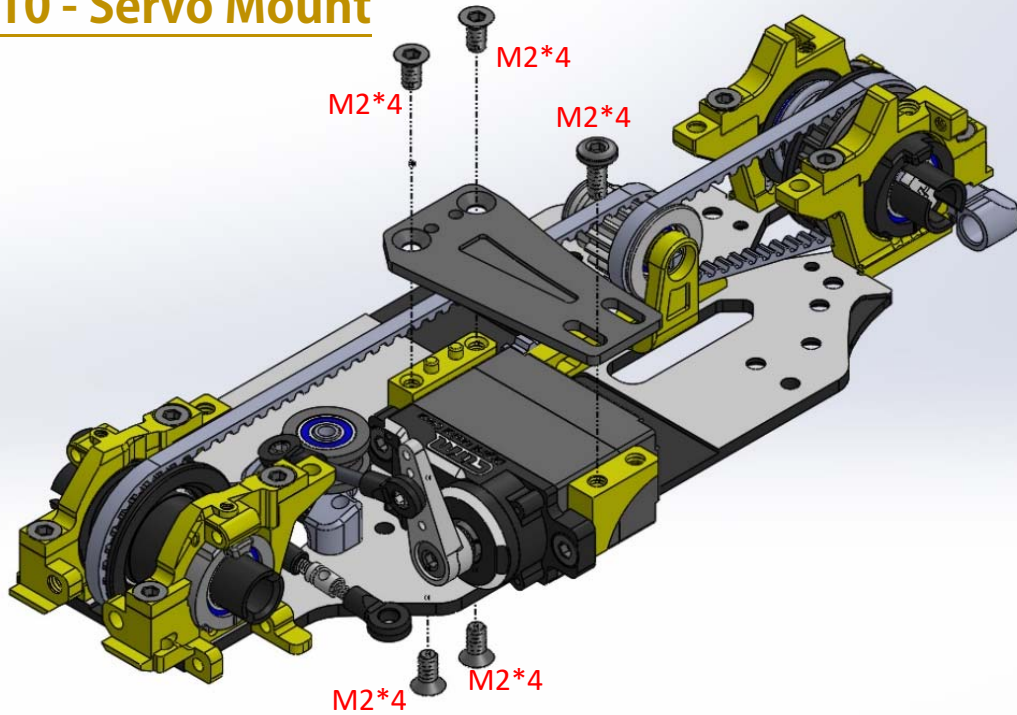


Fix the linkages as shown

Video to show how to smooth ball links, please scan the QR code.

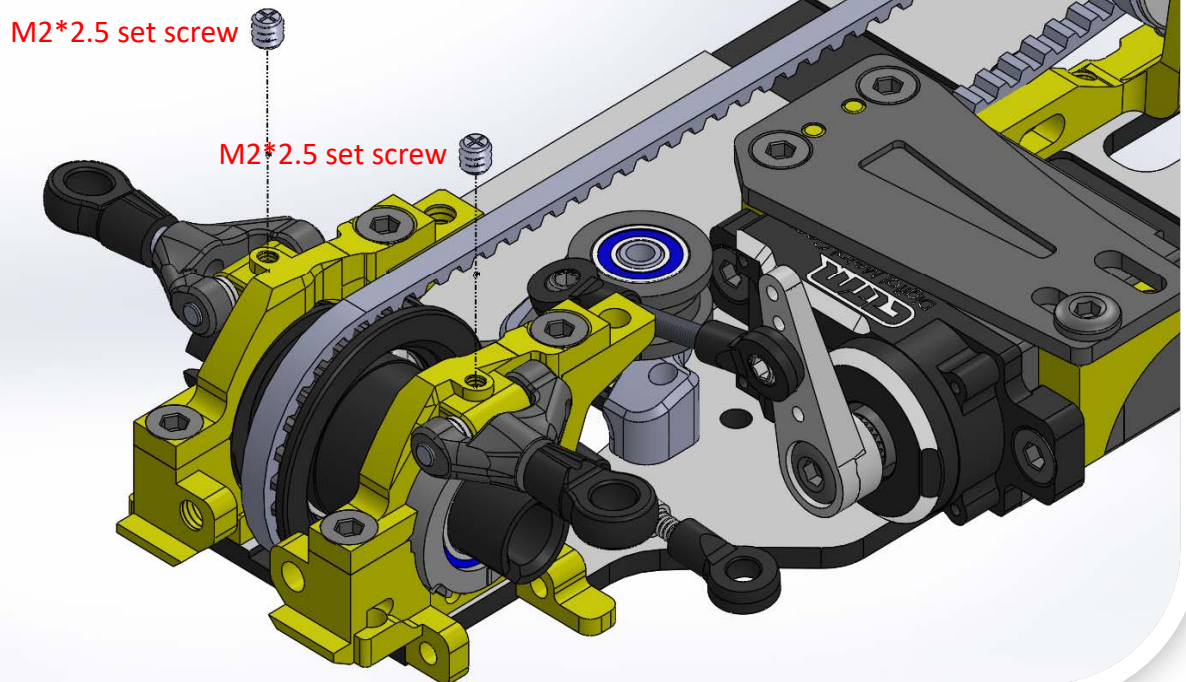


Step 10 - Servo Mount



Step 11 - Front Upper Arms

Step 11.1 - Front Upper Arms

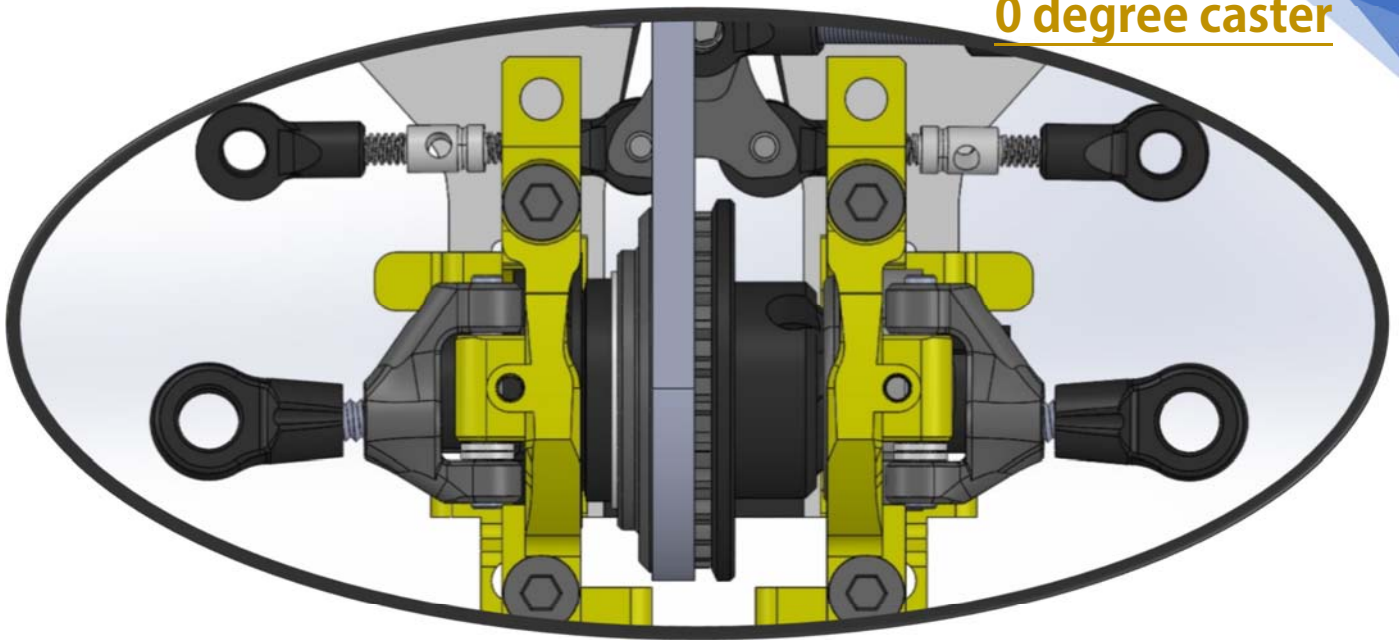


Note:

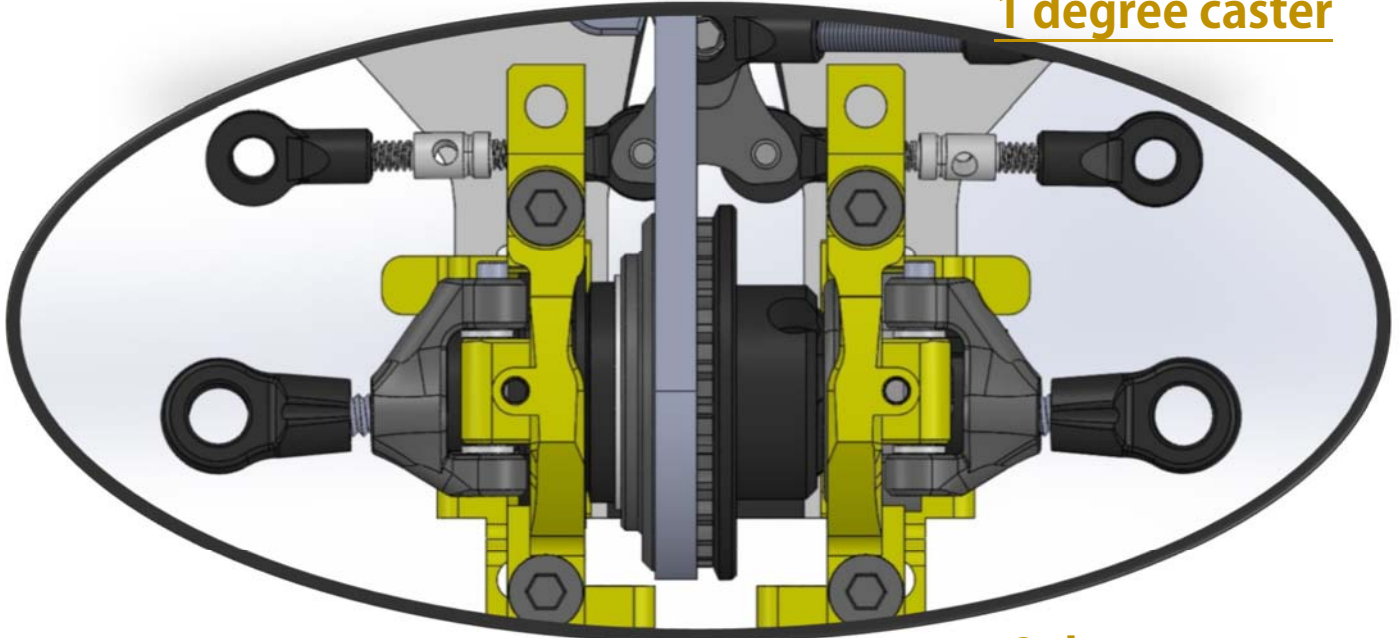
1.5*2.5*0.35 white washer is used to adjust the Front Caster Angle (upper arm inclination). More caster angle will generate more steering but decrease in stability. We recommend you try different degree to find the best position for you.

Every 0.35mm move = 1-degree change of caster angle.

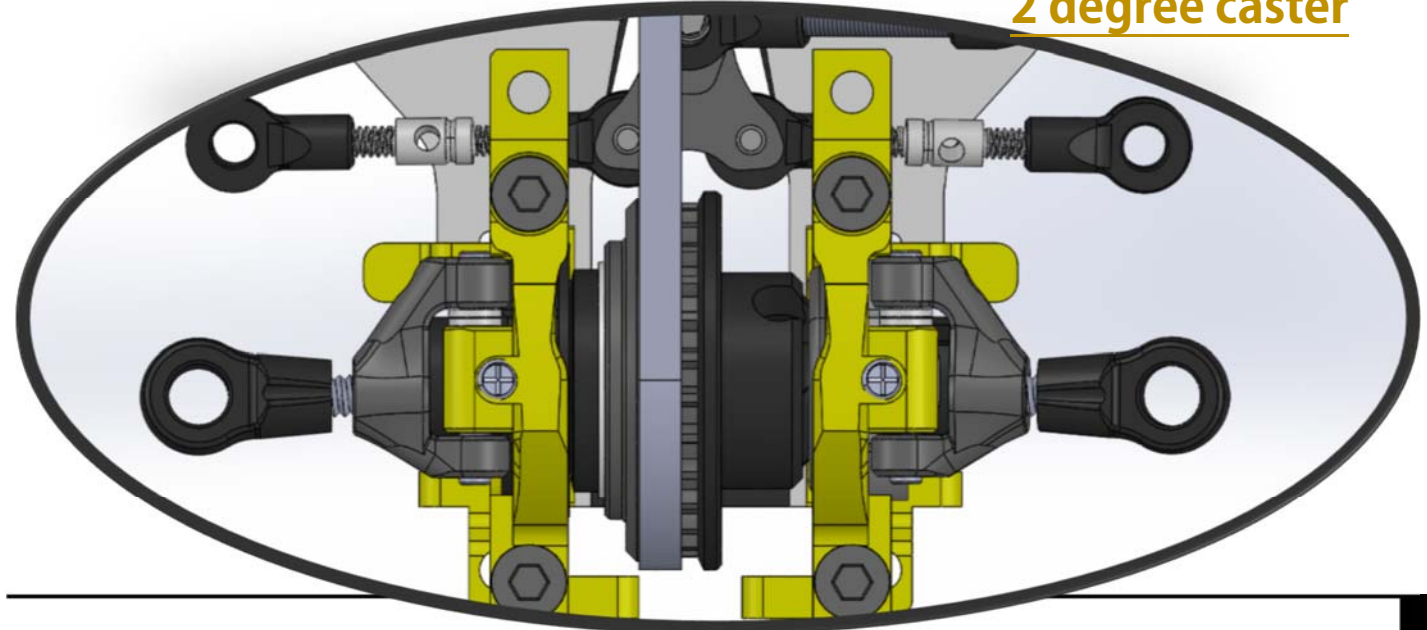
0 degree caster



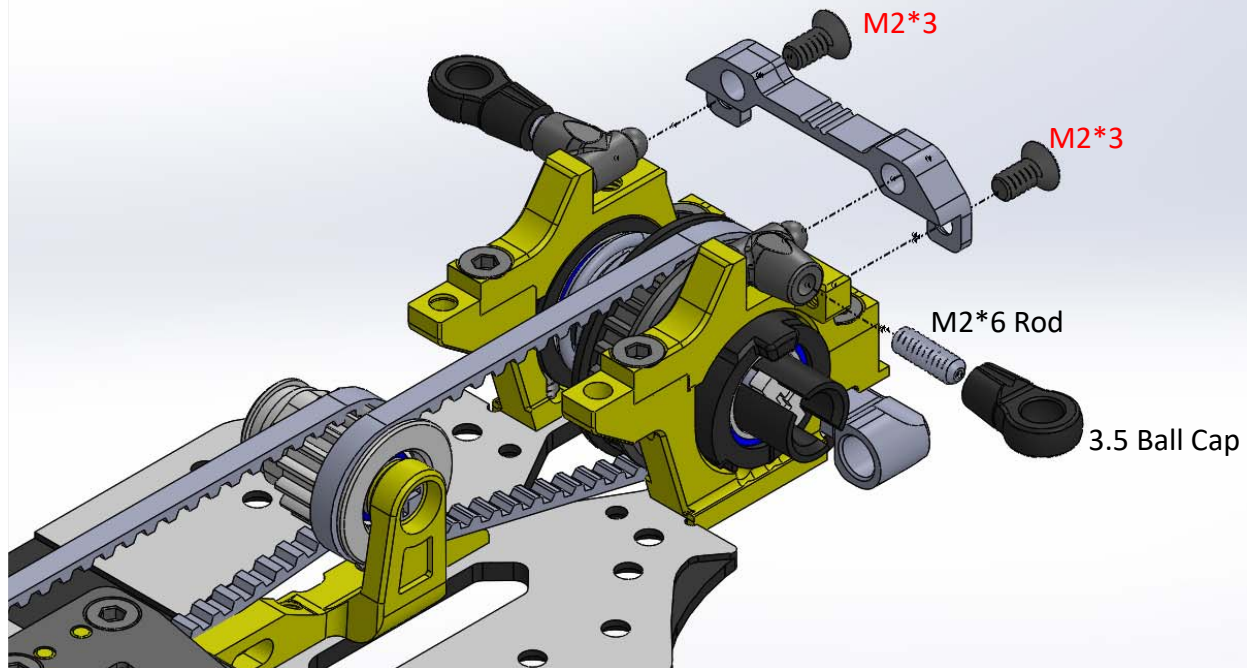
1 degree caster



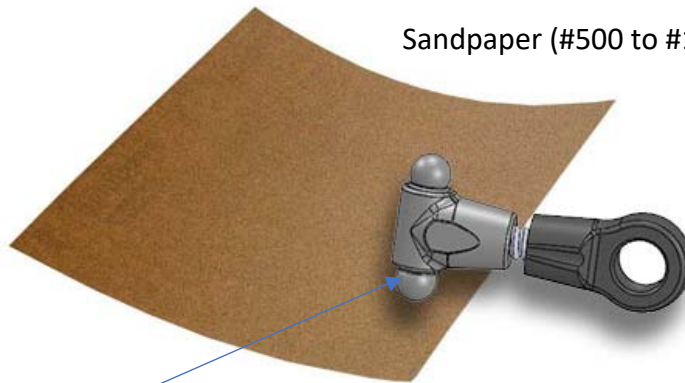
2 degree caster



Step 12 - Rear Upper Arms



Sandpaper (#500 to #1000)

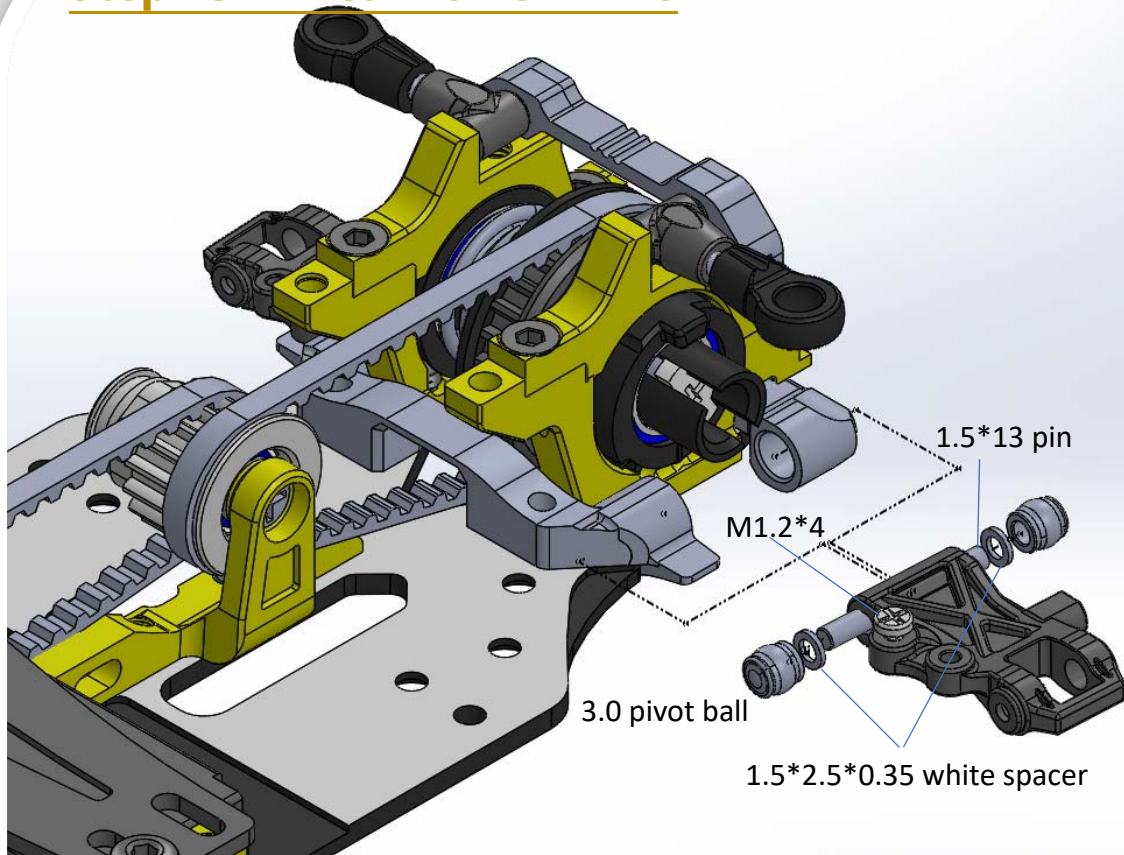


Caution:

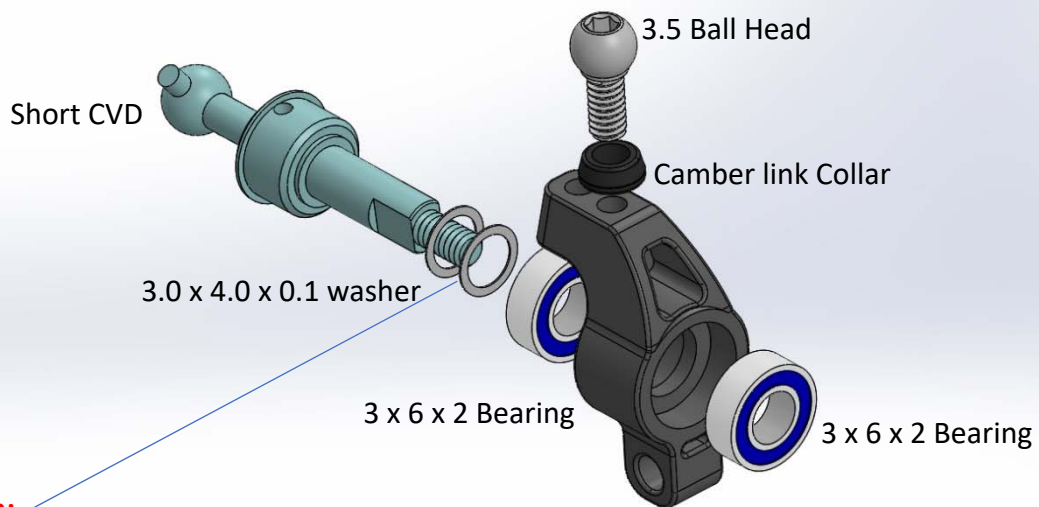
If the Upper arm is not moving freely, please use sandpaper to grind the “tip of the ball head”. To remove burr (or raised edge) of the plastic ball head.

Make sure the upper arm is moving freely.

Step 13 - Rear Lower Arms

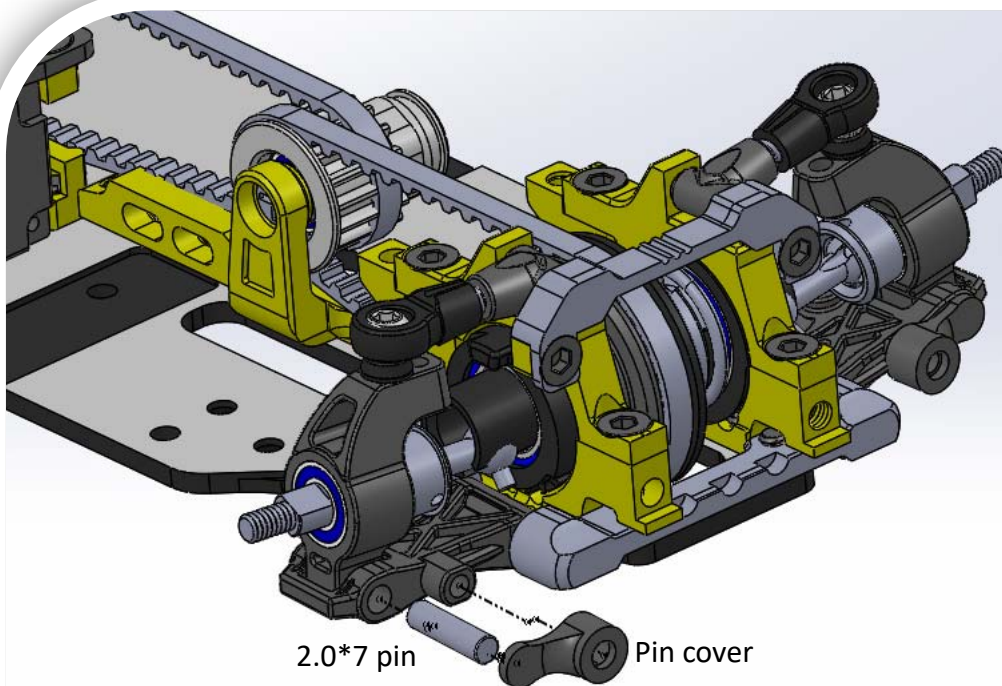


Step 14 - Rear Uprights



Caution:

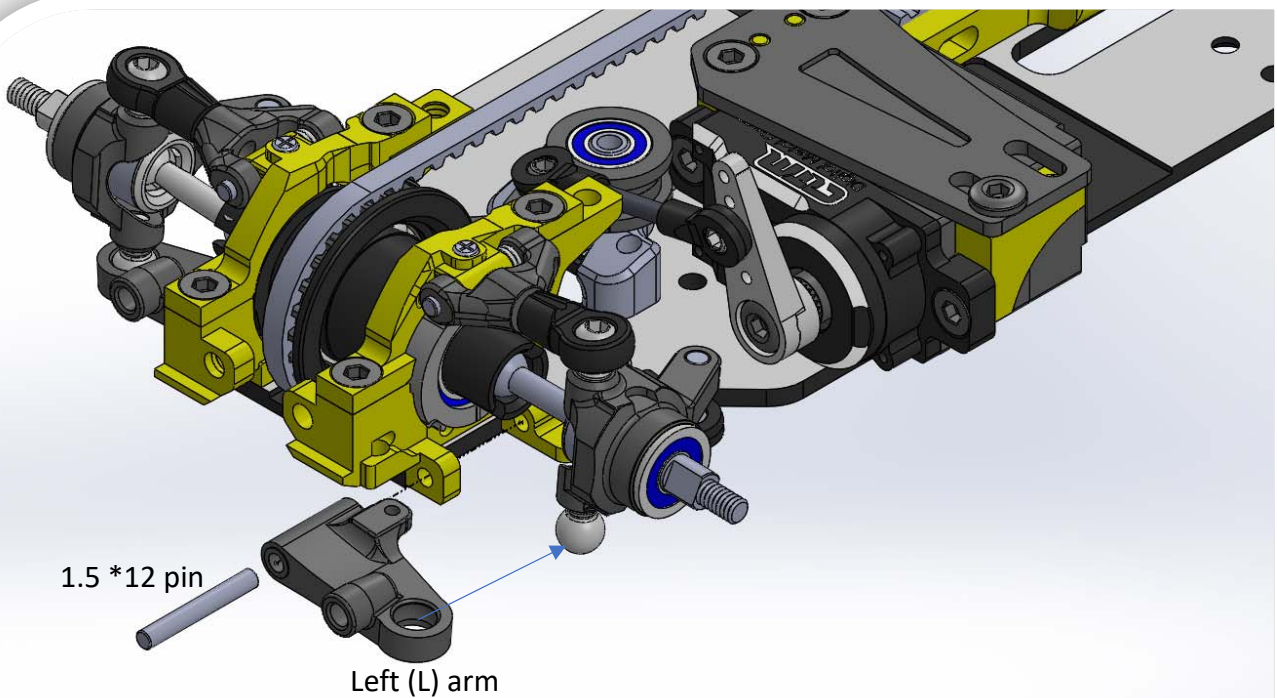
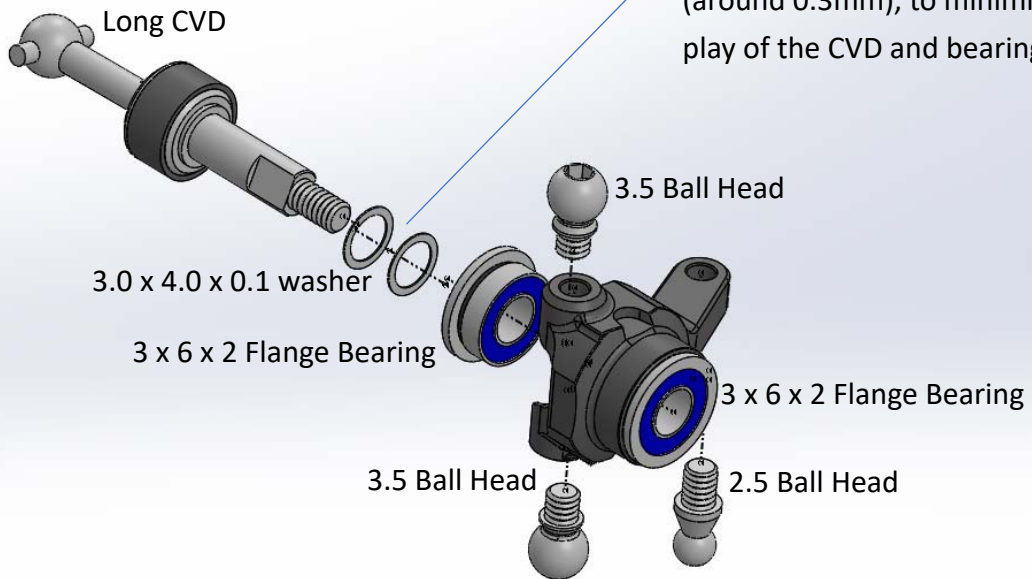
Apply 0.1mm washer 2 or 3 pcs (around 0.3mm), to minimize the play of the CVD and bearing.



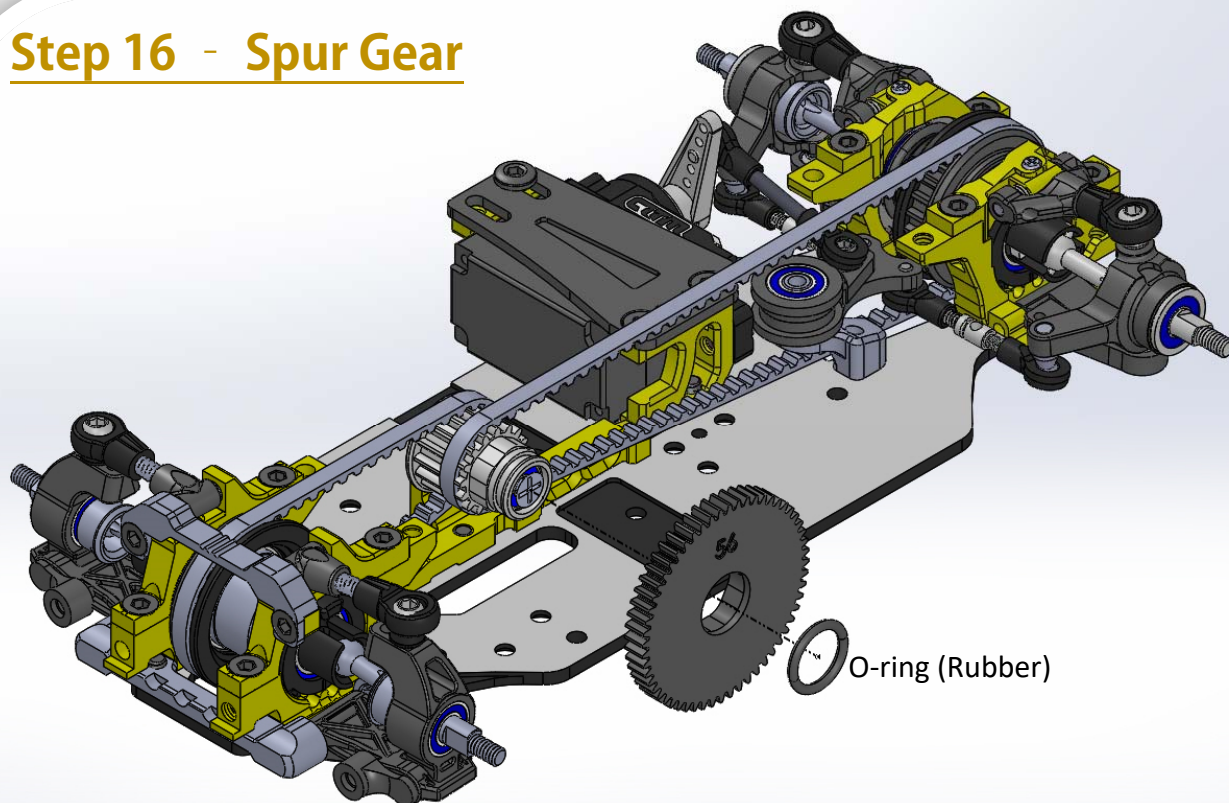
Step 15 - Front Knuckles

Caution:

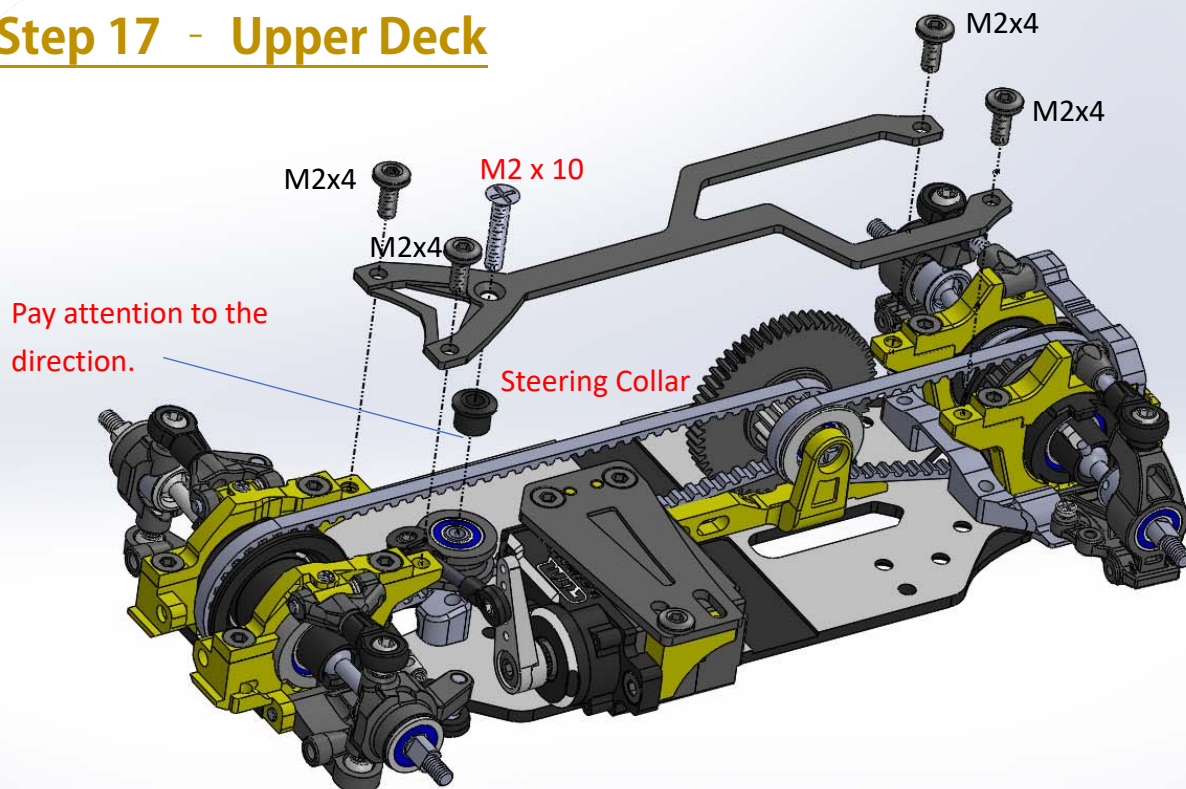
Apply 0.1mm washer 2 or 3 pcs (around 0.3mm), to minimize the play of the CVD and bearing.



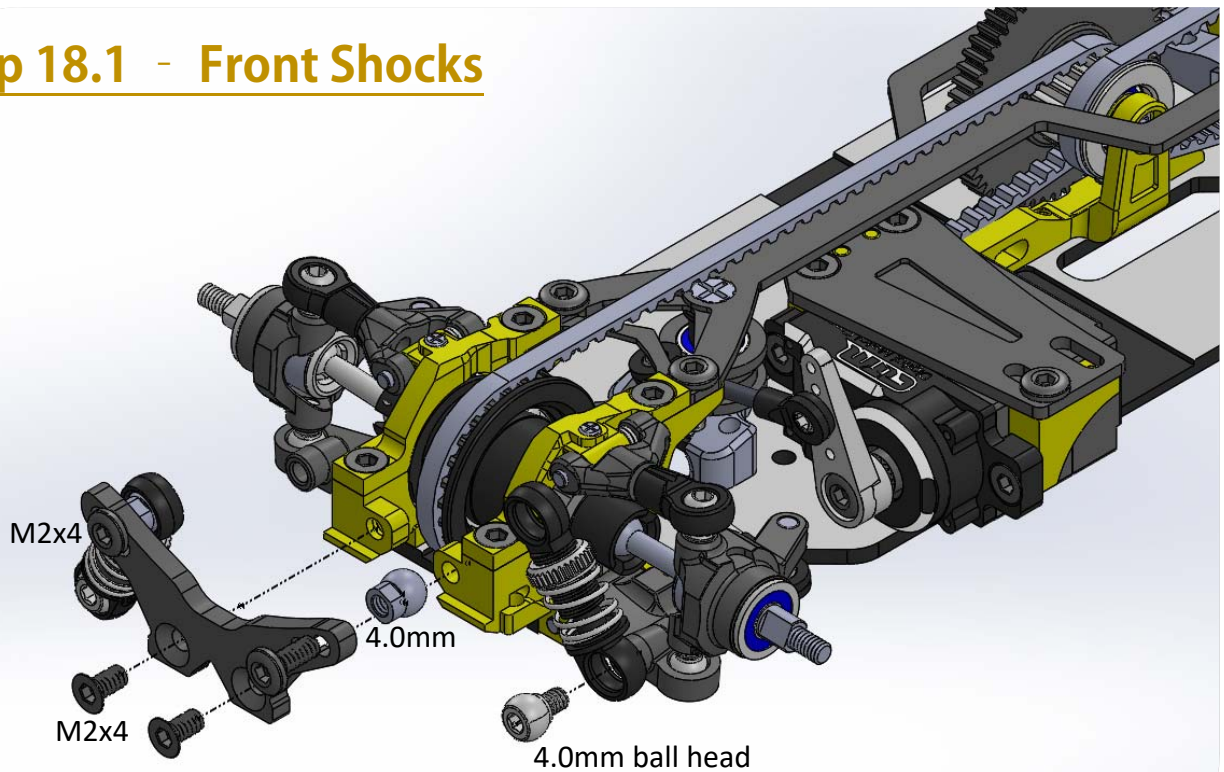
Step 16 - Spur Gear



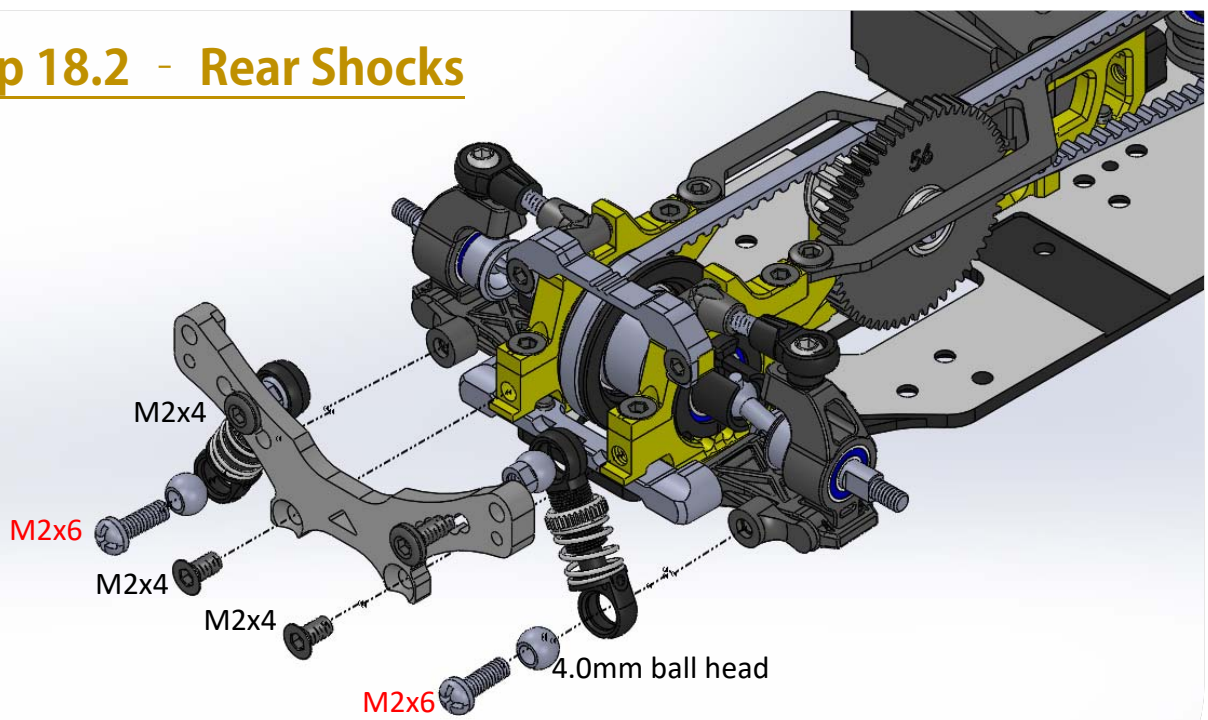
Step 17 - Upper Deck



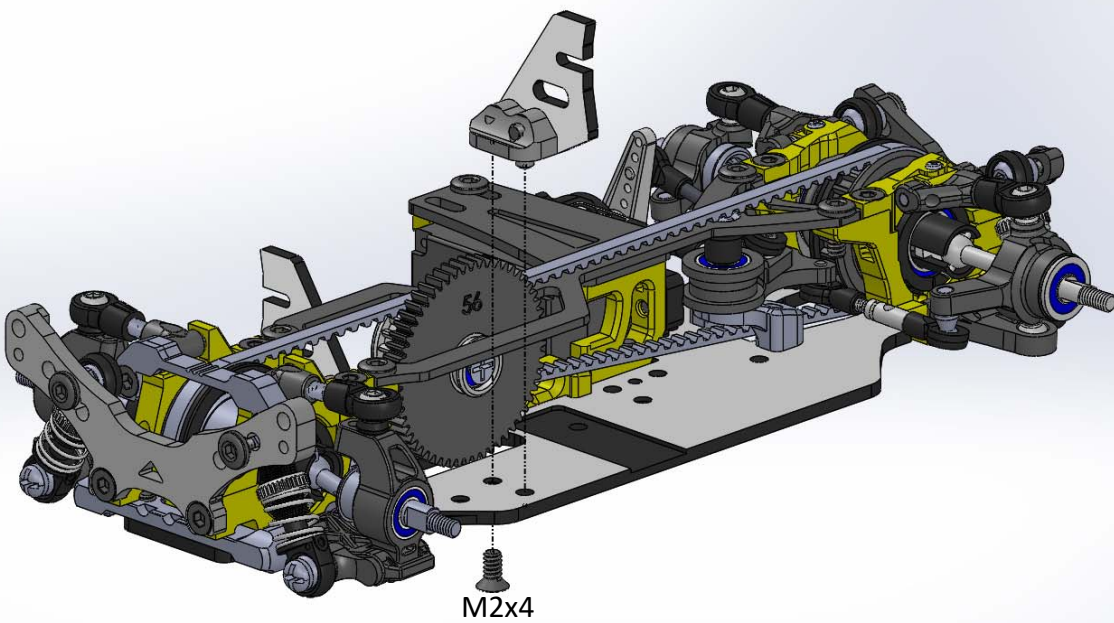
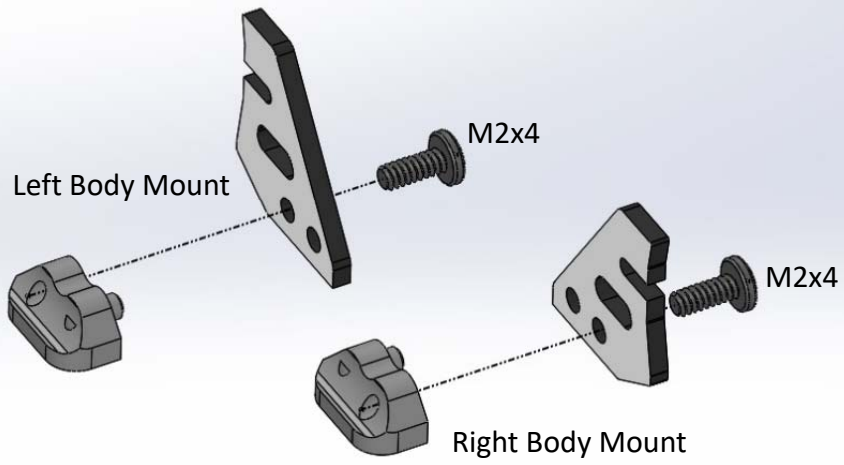
Step 18.1 - Front Shocks

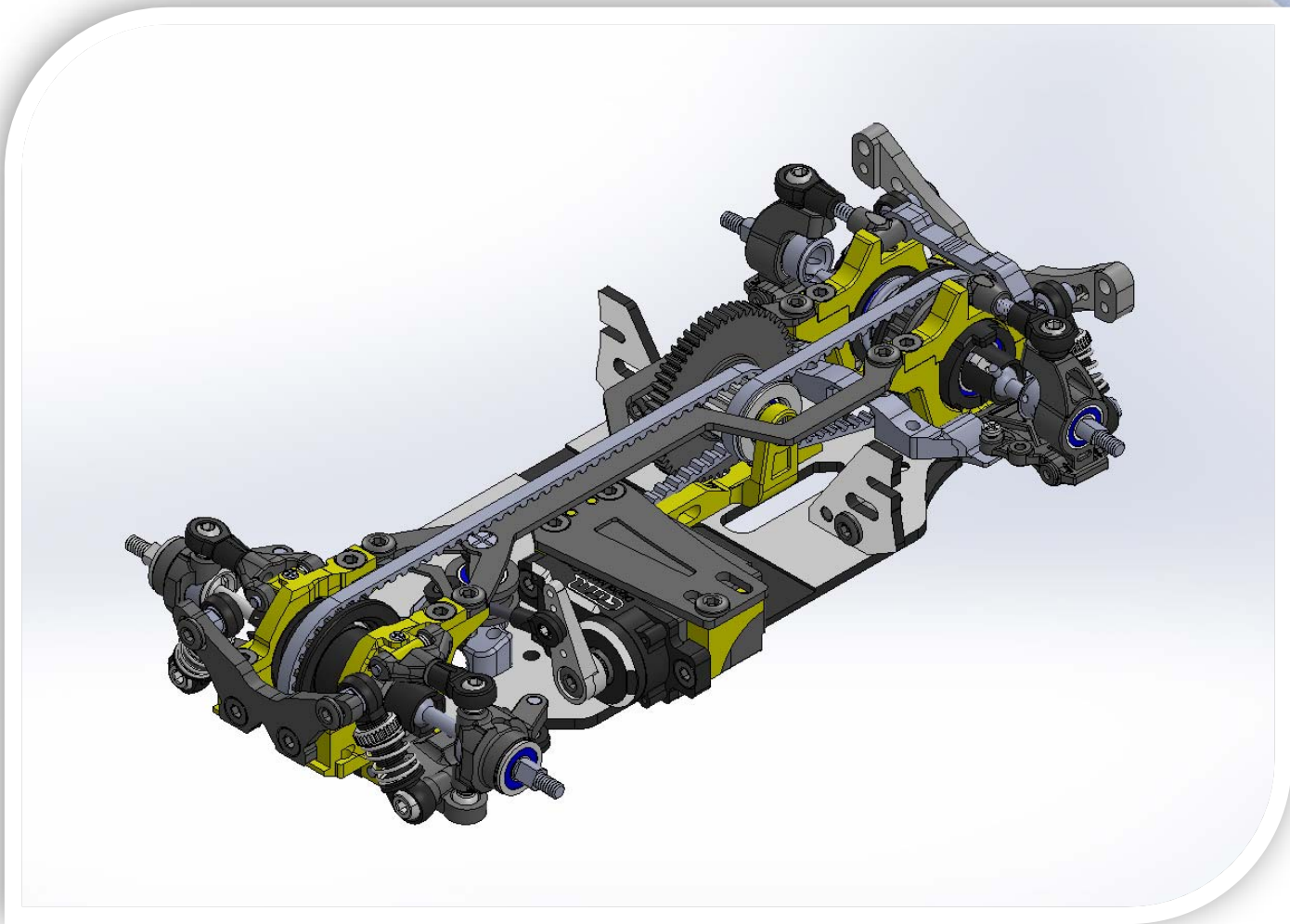


Step 18.2 - Rear Shocks



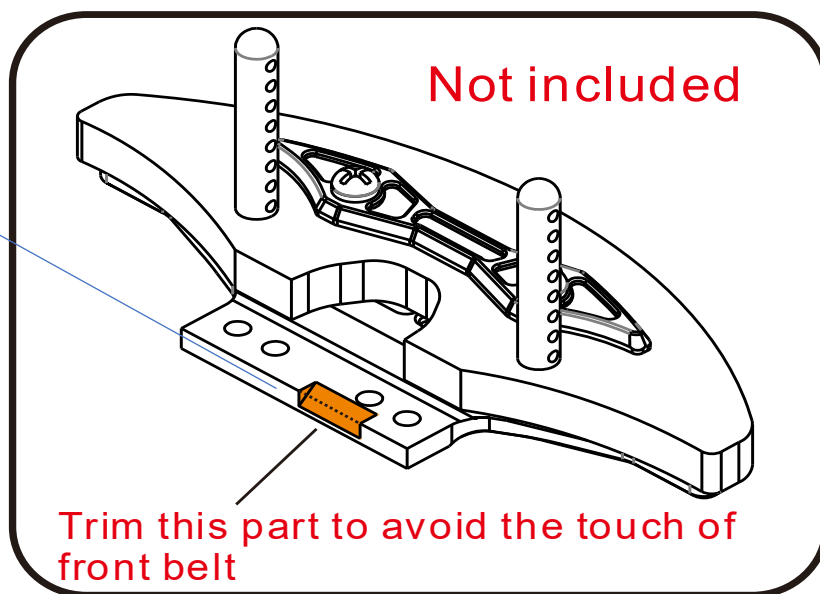
Step 19 - Body Mounts





**Install the
Front Body Mount**

⚠ Caution:



Step 20 - Gear Ratio

		<u>Motor Gear (pinion)</u>								
		13	14	15	16	17	18	19	20	21
<u>Spur</u>	54				5.70	5.37	5.07	4.80	4.56	4.35
	56		6.76	6.31	5.92	5.57	5.26	4.98	4.73	4.51
	58	7.54	7.00	6.53	6.13	5.77	5.45	5.16	4.90	4.67

Recommend Gear ratio for Atomic Motors:

3500KV : around 4.3 ~ 4.6

5500KV : around 5.2 ~ 5.5

7000KV : around 5.8 ~ 6.2

Gear ratio decision is affected by strength of battery, chassis weigh and overall smoothness of the transmission system also the size of the track.