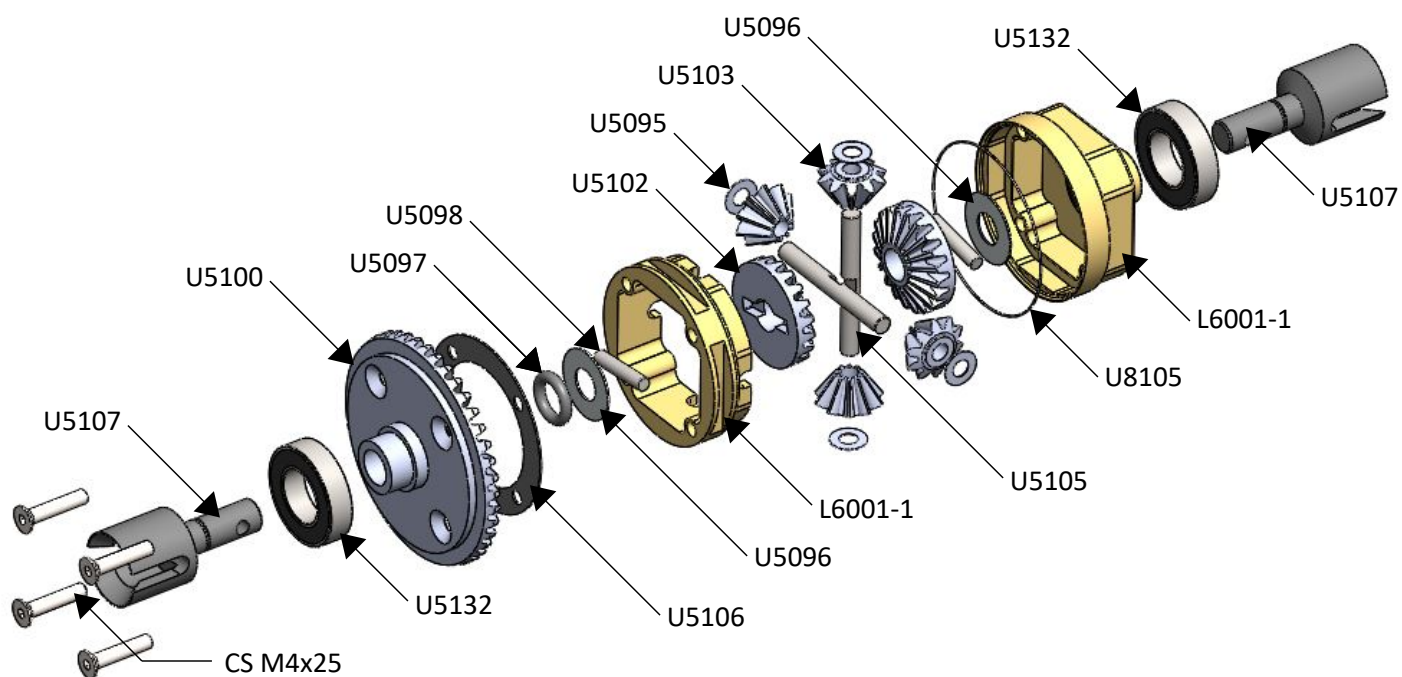


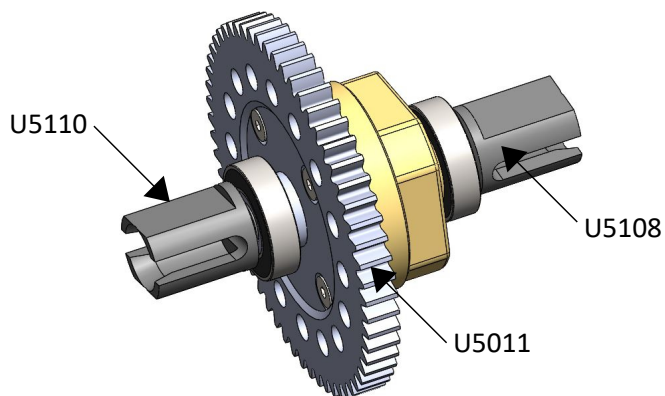
1)DIFFERENTIALS: Front / rear



PART NO:	QTY:	DESCRIPTION:	PART NO:	QTY:	DESCRIPTION:
L6001-1	3	Differential housing	U5103	12	Differential gear small, internal
U5095	12	Shim internal gear	U5105	6	Differential gear shaft
U5096	6	Shim 10x 20x 0,5	U5106	3	Differential gasket
U5097	3	O-ring differential 15x 2,5	U5107	4	Differential cup front / rear
U5098	6	Dowelpin big internal gear differential	U5132	6	Differential / clutch bell bearing
U5100	2	Differential front/rear gear	U8105	3	O-ring 47x1 differential for L6001-1
U5102	6	Differential gear big, internal	CS M4x25	12	Countersunk M4x 25mm

Center differential:

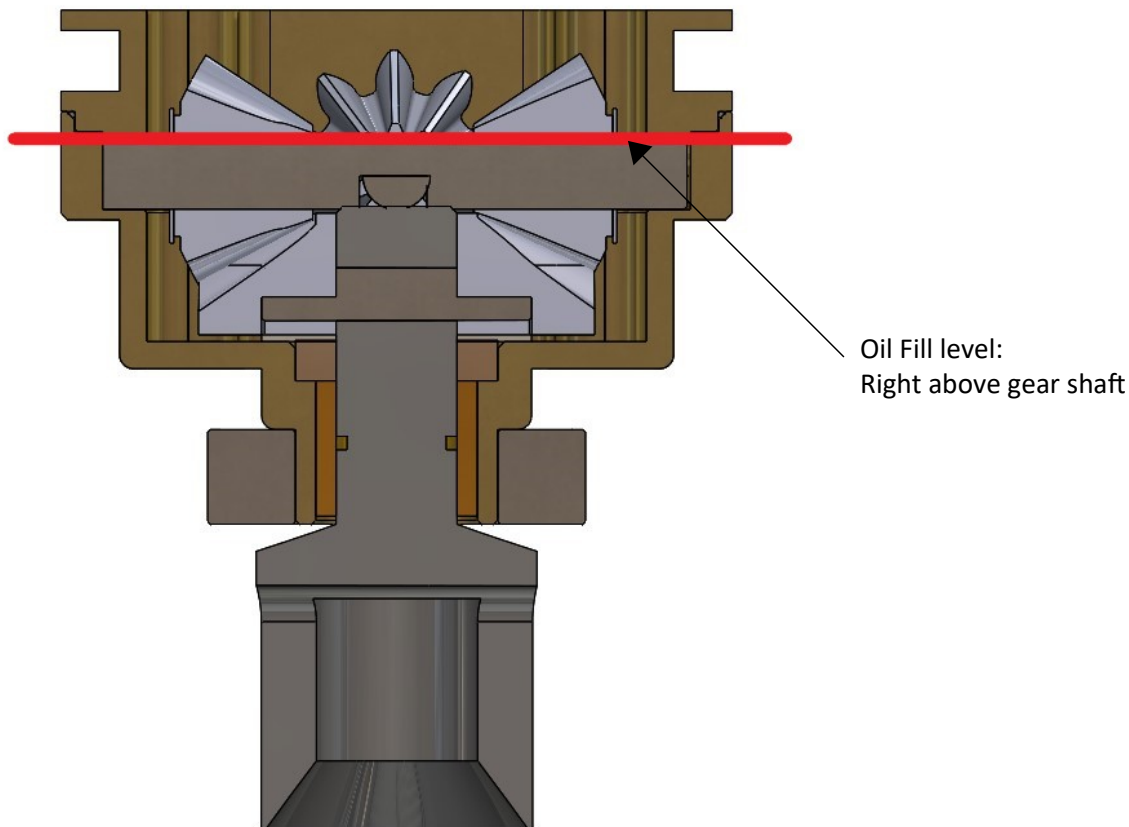
PART NO:	QTY:	DESCRIPTION:
U5011	1	Spur gear 58T
U5108	1	Differential cup center - front
U5110	1	Differential cup center – rear 6mm



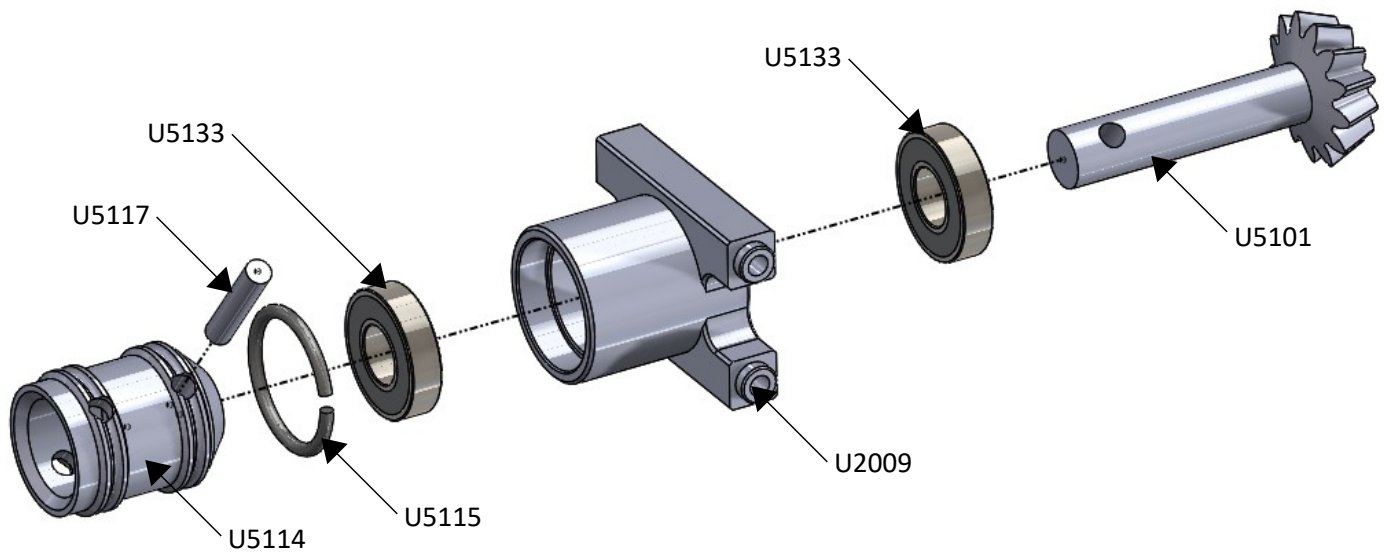
Instructions:

- Mount the bearings on the differential housing and the differential gear.
- Grease and insert the diff cups through the housing and the gear.
- On the gear side, place the small o-ring over the axle – apply grease.
- Place a 10x20 shim over the axle and insert the dowelpin through the axle on both sides.
- Mount one large differential gear over the axle on both sides.
- Assemble the four small internal gears on the gear shafts, placing 1 shim on the outside of each small gear.
- Insert the gear shafts into the slots in the second half of the differential housing.
- Close the two halves of the housing, with the gears and shafts between them; between the two halves, put the 47x1 o-ring- Make sure the o-ring is seated correctly before closing the housing, if not the o-ring may get damaged.
- Fill the differential housing to the level as shown on the picture below. – note that some oil might spill into the m4 threads – this is not a problem.
- Close the differential with the gear, put the gasket between the housing and the gear.
- Secure the gear with 4 M4x25mm counter sunk bolts.

✓ **Tip:** Default setup for the differential oil is: 20.000 front – 60.000 center – 7000 rear



2)FRONT END :



PART NO:	QTY:	DESCRIPTION:	PART NO:	QTY:	DESCRIPTION:
U2009	1	Gear carrier	U5115	1	Drive shaft coupler spring
U5101	1	Differential pinion 13T	U5117	1	CVD cup dowelpin 4x20
U5114	1	Drive shaft coupler	U5133	2	Differential pionion gear bearing 9x20

Instructions:

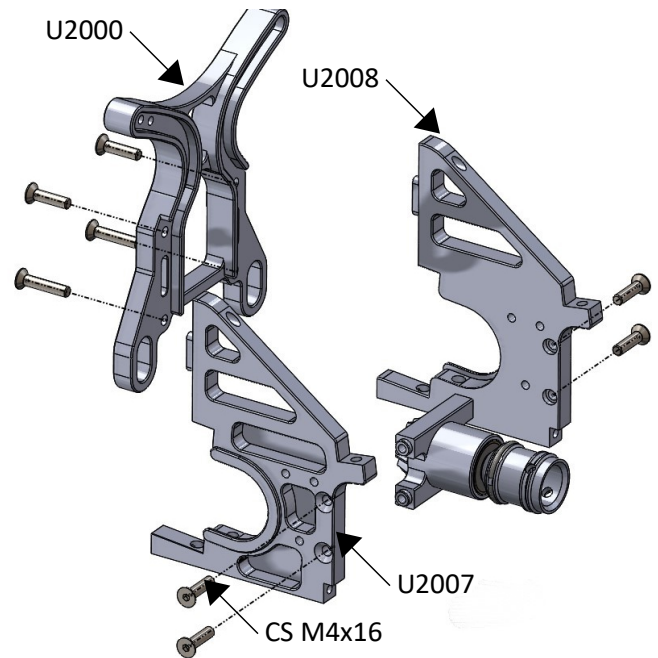
- Start by inserting the two bearings into the gear carrier
- Slide the differential pinion trough the two bearings
- Slide drive shaft coupler over end of differential pinion
- The CVD cup dowelpin goes through both drive shaft coupler and hole in drive shaft coupler
- Secure pin by sliding the drive shaft coupler spring in the groove of the drive shaft coupler

ART NO:	QTY:	DESCRIPTION:
---------	------	--------------

U2000	1	Shocktower
U2007	1	Diffmount left
U2008	1	Diffmount right
CS M4x16	8	Countersunk M4x16mm

Instructions:

- Attach the left and right diffmount to the gear carrier using M4x16mm counter sunk bolts.
- Attach the front shocktower to the assembly using M4x16mm counter sunk bolts.
- ✓ **Apply threadlock to all the bolts !**



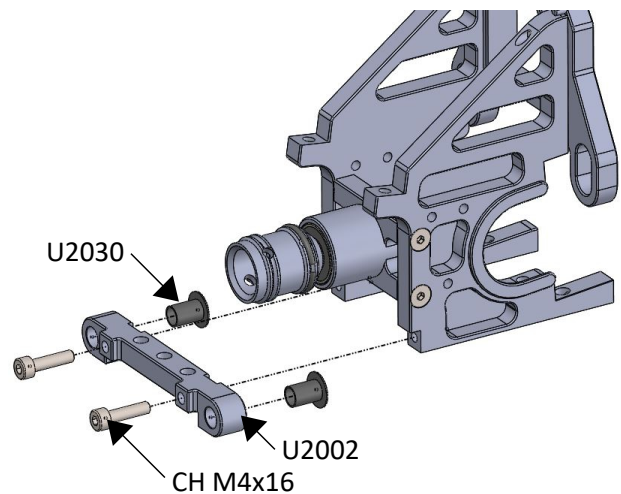
ART NO:	QTY:	DESCRIPTION:
---------	------	--------------

U2002	1	Lower wishbones carrier
U2030	2	Slide bearing
CH M4x16	2	Cilinderhead M4x16mm

Instructions:

- Press 2 slide bearings into the wishbone carrier
- Attach wishbone carrier to the assembly using M4x16mm cilinder head bolts.

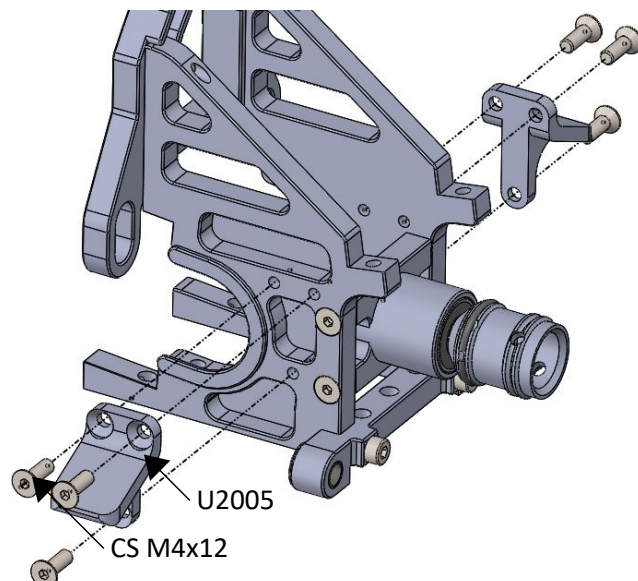
- ✓ **Apply threadlock to all the bolts !**



ART NO:	QTY:	DESCRIPTION:
U2005	2	Downstop
CS M4x12	6	Countersunk M4x12mm

Instructions:

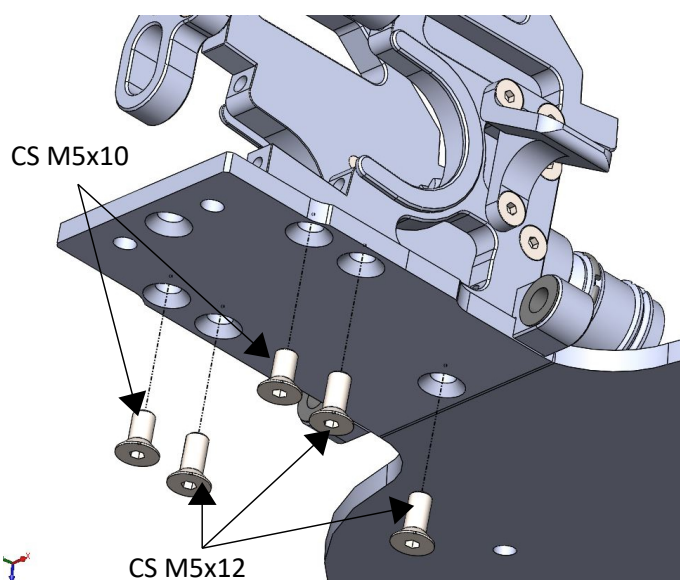
- Attach the downstops to the diffmounts using M4x12mm counter sunk bolts.
- ✓ **Apply threadlock to all the bolts !**



ART NO:	QTY:	DESCRIPTION:
U7000-1	1	Chassis Ultron ZR
CS M5x10	2	Countersunk M5x10mm
CS M5x12	3	Countersunk M5x12mm

Instructions:

- Mount the assembly to the chassis using 3 M5x12mm countersunk bolts and 2 M5x10mm countersunk bolts. The shortest bolts go into the two most forward holes as shown in the picture to the right.
- ✓ **Apply threadlock to all the bolts !**



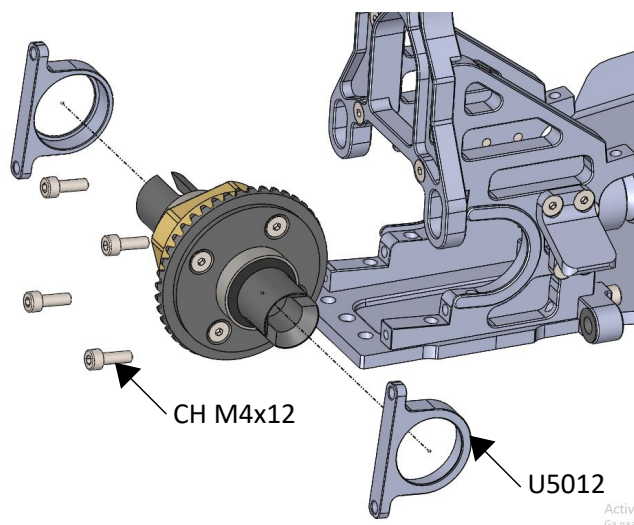
ART NO:	QTY:	DESCRIPTION:
U5012	2	Differential carrier
CH M4x12	4	Cylinderhead M4x12mm

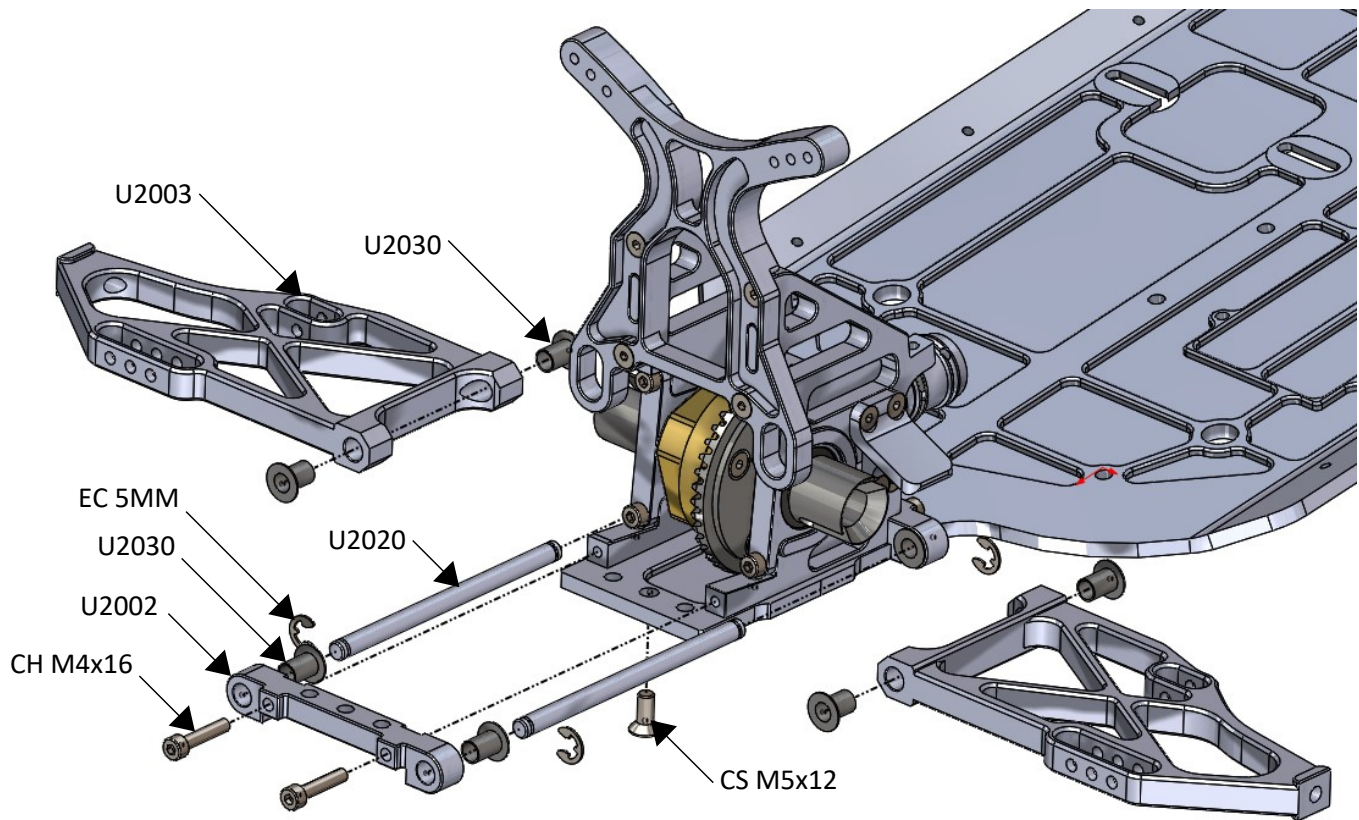
Instructions:

- Slide the differential carriers over the differential bearings.
- Slide diff with carriers into the front bulkhead and secure with 4 M4x12mm cylinder head bolts.

✓ **Apply threadlock to all the bolts !**

- ✓ **Tip:** If the mesh feels tight, lightly tap the outdrive on the opposite side of the crown wheel. Making sure not to damage the outdrive.





PART NO:	QTY:	DESCRIPTION:	PART NO:	QTY:	DESCRIPTION:
EC 5MM	4	E-clip 5mm	U2030	6	Slide bearing
U2002	1	Lower wishbone carrier	CH M4x16	2	Cilinder head M4x20mm
U2003	2	Lower wishbone	CS M5x12	1	Countersunk M5x 12 mm
U2020	2	Lower wishbone pin			

Instructions:

- Insert two slide bearings into the lower wishbone carrier.
- Secure the wishbone carrier with 2 M4x20mm cilinderhead bolts and 1 countersunk M5x??mm bolt.
- Insert the 4 slide bearing into both lower wishbones.
- Insert the lower wishbone pin through the lower wishbone carriers and mount the wishbone as shown in the picture above.
- Secure the lower wishbone pins with 4 E-clips.

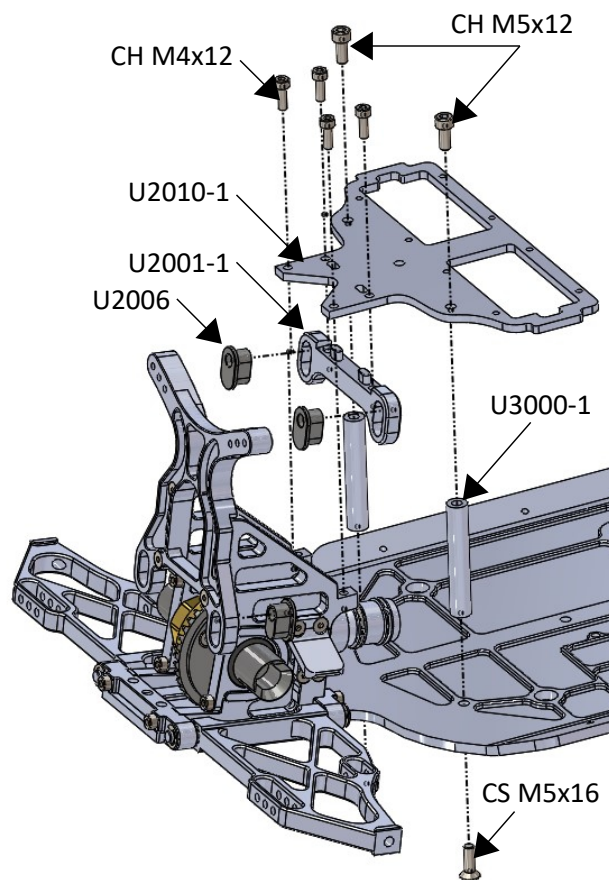
✓ **Apply threadlock to all the bolts !**

✓ **Tip:** Make sure the wishbones can rotate without friction once mounted between both wishbone carriers.

ART NO:	QTY:	DESCRIPTION:
U2001-1	1	Upper wishbone carrier
U2006	4	Insert upper wishbone excentric
U2010-1	1	Top plate
U3000-1	2	Servo saver axle
CH M4x12	4	Cilinderhead M4x12mm
CH M5x12	2	Cilinderhead M5x12mm
CS M5x16	2	Countersunk M5x16mm

Instructions:

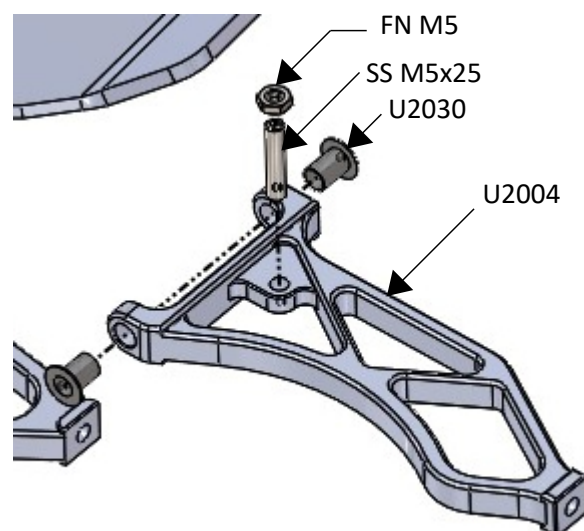
- Mount both servo saver axles onto the chassis with 2 M5x16mm countersunk bolts.
- Mount the upper wishbone carrier to the top plate using 2 M4x12mm cilinderhead bolts.
- Mount the top plate to the front-end assembly and the servo saver axles using 2 M4x12mm cilinderhead bolts and 2 M5x12mm cilinderhead bolts.
- Insert 4 “insert upper wishbone excentric” into the upper wishbones carrier and the front shock tower.
- ✓ **Only apply threadlock to the CS M5x16mm bolts which go into the chassis. The bolts connecting the top plate will be removed again when mounting the servos !**
- ✓ **Tip:** Default setup for the upper wishbone excentric insert is with the holes facing upward as shown in the picture above.

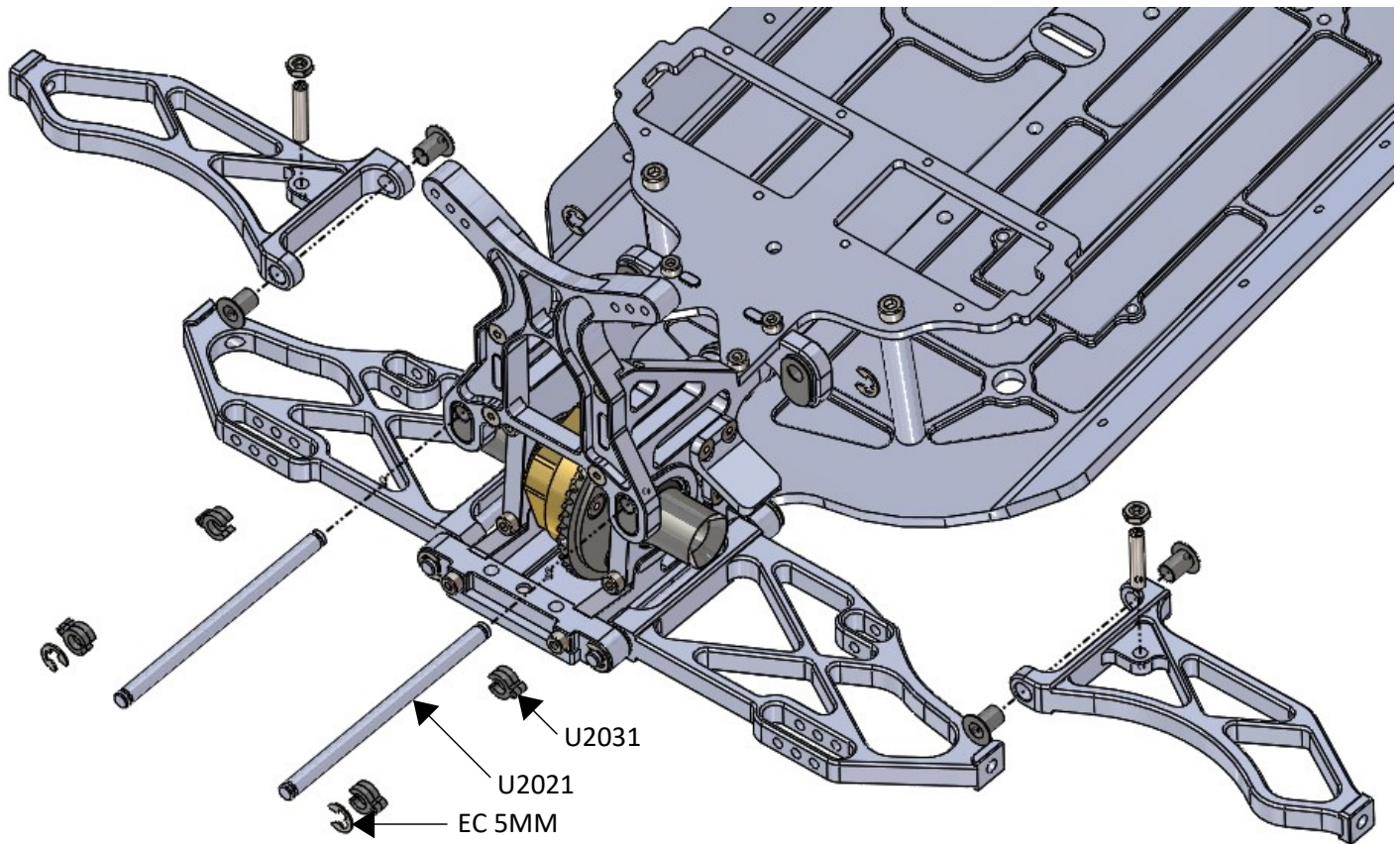


ART NO:	QTY:	DESCRIPTION:
U2004	2	Upper wishbone
U2030	4	Slide bearing
FN M5	2	Flat nut M5
SS M5x25	2	Setscrew M5x25mm

Instructions:

- Insert the slide bearings in both upper wishbones
- Mount a M5x25mm setscrew and a M5 flat nut in each wishbone as shown in the picture.

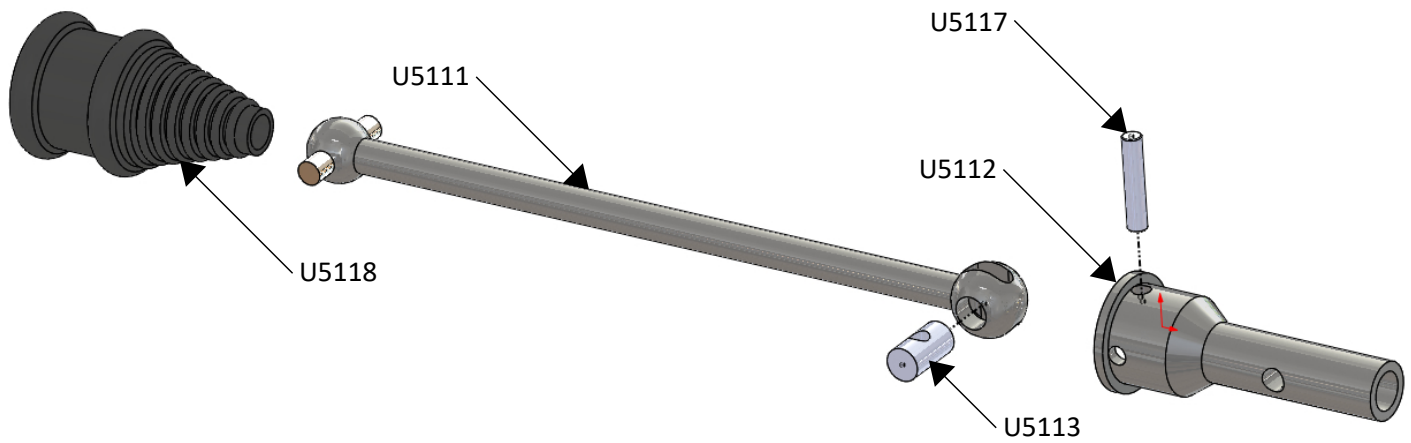




PART NO:	QTY:	DESCRIPTION:	PART NO:	QTY:	DESCRIPTION:
EC 5MM	4	Clip 5mm	U2031	8	Distance clip
U2021	2	Upper wishbone pin			

Instructions:

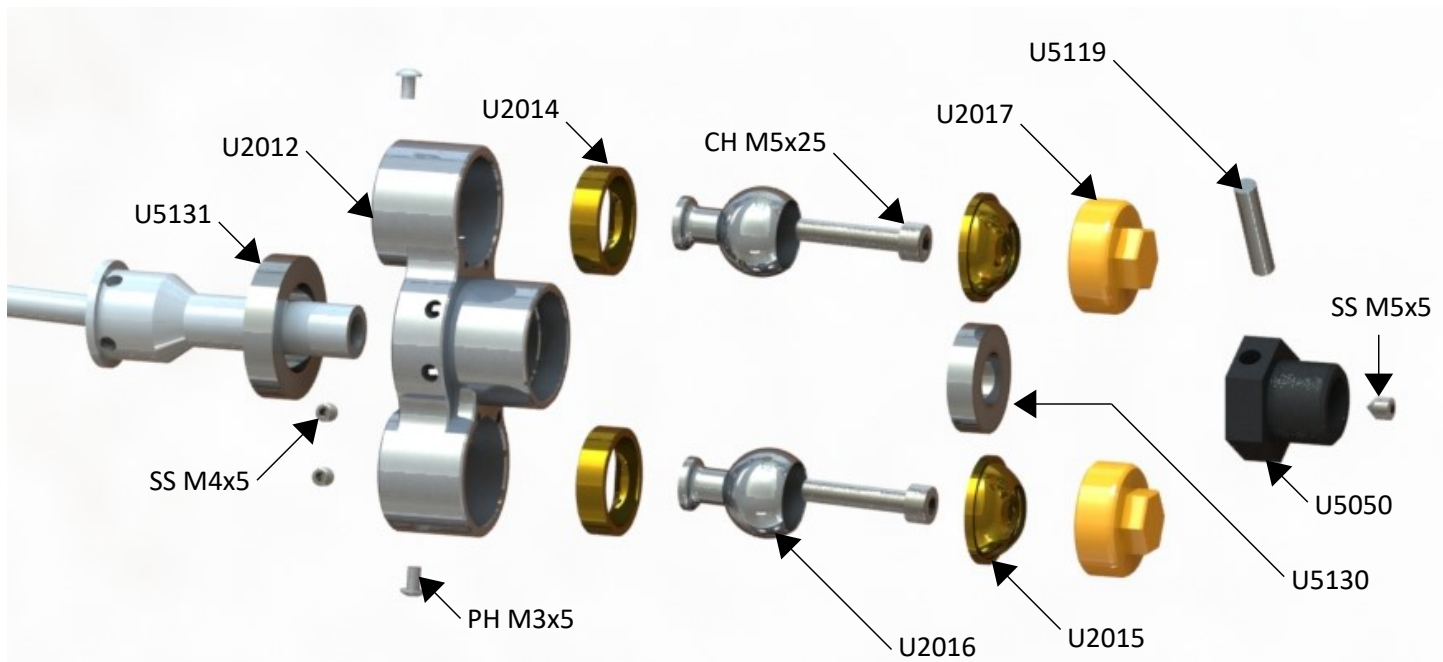
- Insert the upper wishbone pin through the shock tower, upper wishbone and rear upper wishbone carrier. Mount the wishbone in the direction as shown on the picture above.
- Secure the upper wishbone pin with 4mm E-clips on both ends of the wishbone.
- Use the distance clips to set up the caster by moving the upper wishbone forward or backward.
- ✓ **Tip:** Default setup for the upper wishbone is 2 clips in front and 2 clips behind the upper wishbone.



PART NO:	QTY:	DESCRIPTION:	PART NO:	QTY:	DESCRIPTION:
U5111	2	Drive shaft wheel	U5117	2	CVD cup dowelpin 4x20mm
U5112	2	Wheel CVD cup	U5118	2	Drive shaft boot
U5113	2	Wheel CVD shaft pin			

Instructions:

- Apply grease to the drive shaft boot and the drive shaft. Carefully slide the boot over the driveshaft.
- Insert the wheel CVD shaft pin in the driveshaft.
- Insert the driveshaft in the “wheel CVD cup”.
- Secure with the 4x20mm CVD cup dowelpin.
- ✓ **Apply a small amount of grease to the CVD assembly.**



PART NO:	QTY:	DESCRIPTION:	PART NO:	QTY:	DESCRIPTION:
U2012	2	Upright	U5130	2	Wheel bearing small
U2014	4	Brass insert pivot system inside	U5131	2	Wheel bearing big
U2015	4	Brass insert pivot system outside	CH M5x25	4	Cilinderhead M5x25mm
U2016	4	Pivot ball steel	PH M3x5	4	Pan head bolt M3x5mm
U2017	4	Pivot ball system nut	SS M5x5	4	Setscrew M4x5mm
U050	2	Wheel hex hub	SS M5x5	2	Setscrew M5x5mm
U5119	2	Wheel hex hub dowel pin			

Instructions:

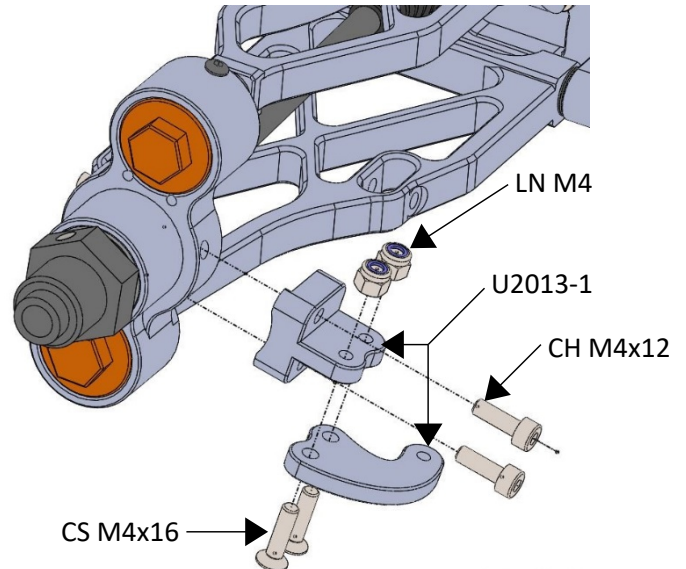
- **Note:** The front uprights are excentric. Mount the uprights with the excentric on top as shown in the picture above !
- Screw the 2 M3x5mm pan head bolts in the top and bottom of the upright.
- Screw 2 M4x5mm setscrews in the front of the upright – these serve to prevent the ingress of dirt through these unused holes.
- Insert both the bearings in the upright.
- Slide the drive shaft assembly through the bearings.
- Insert the “brass insert pivot system inside” into the upright, making sure the nothes in these align with the M3x5mm pan head bolts and that the brass inserts are all the way in.
- Insert both pivot balls in the uprights and fasten these to the wishbones with M5x25mm cilinderhead bolts.
- Insert the “brass insert pivot system outside”
- Screw the “pivot ball system nuts” into the upright. Tighten fully against the brass insert, then **loosen ¼ turn**.

- Slide the wheel hex hub on the axle, insert the wheel hex hub dowel pin and fasten pin with M5x5mm setscrew.
- ✓ **Apply threadlock to all the bolts !**
- ✓ **Apply a small amount of grease to the pivotball system.**
- ✓ **Tip:** After about 1 hour of running the car, check play in the pivot ball system, if necessary tighten slightly.

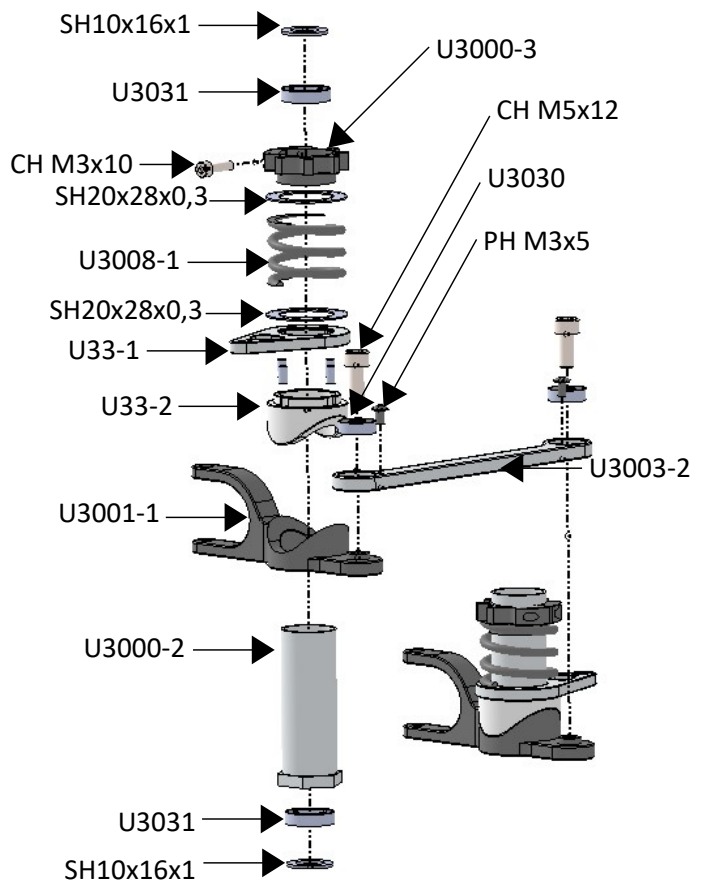
ART NO:	QTY:	DESCRIPTION:
U2013-1	2	Steering lever kit
CH M4x12	4	Cilinderhead M4x12mm
CS M4x16	4	Countersunk M4x16mm
LN M4	4	Lock nut M4

Instructions:

- Fit the steering lever kit to the upright with 2 M4x12mm cilinderhead bolts.
- Fit the lever itself as shown on the picture to the right. with 2 M4x16mm countersunk bolts and 2 M4 locknuts.
- ✓ **Apply threadlock to the cilinderhead bolts !**



ART NO:	QTY:	DESCRIPTION:
U3000-2	2	Servo saver tube Ultron Zr
U3000-3	2	Servo saver spring adjusting nut
U3001-1	2	Servo saver part alloy Ultron Zr
U3003-2	1	Ackerman plate Ultron Zr
U3008-1	2	Servo saver spring Ultron Zr
U3030	2	Bearing Ackerman plate
U3031	4	Bearing servo saver tube
U33-1	2	Servo saver steering arm Ultron Zr
U33-2	2	Plastic part servo saver Ultron Zr
CH M3x10	2	Cilinderhead M3x10mm
CH M5x12	2	Cilinderhead M5x12mm
PH M3x5	2	Pan head bolt M3x5mm
SH 10x16x1	4	Shim 10x16x1mm
SH 20x28x0,3	4	Shim 20x28x0,3mm



Instructions: Servo saver

- Insert the bearings into the servo saver tubes.
 - Slide the servo saver alloy and plastic part over the servo saver tubes. Apply a small amount of grease between the alloy and plastic part.
 - Mount the servo saver arm on the plastic servo saver part, aligning with the pins so that the servo horns face away from each other once mounted in the car.
 - Mount a 20x28x0,3mm shim, followed by the servo saver spring and another 20x28x0,3mm shim on the servo saver tube.
 - Screw the servo saver spring adjusting nut on the assembly.
 - Secure the nut with M3x10mm cilinderhead bolt.
-
- ✓ **Apply a small amount of grease to the thread of the servo saver nut for easier adjustment.**
 - ✓ **Tip:** Clean and light grease this assembly after each race weekend to prevent servo failures due to a locked up servo saver.
 - ✓ **Tip:** Default setup for the servo saver spring is 0,5-1mm between the top of the thread of the servo saver tube and the servo saver nut.

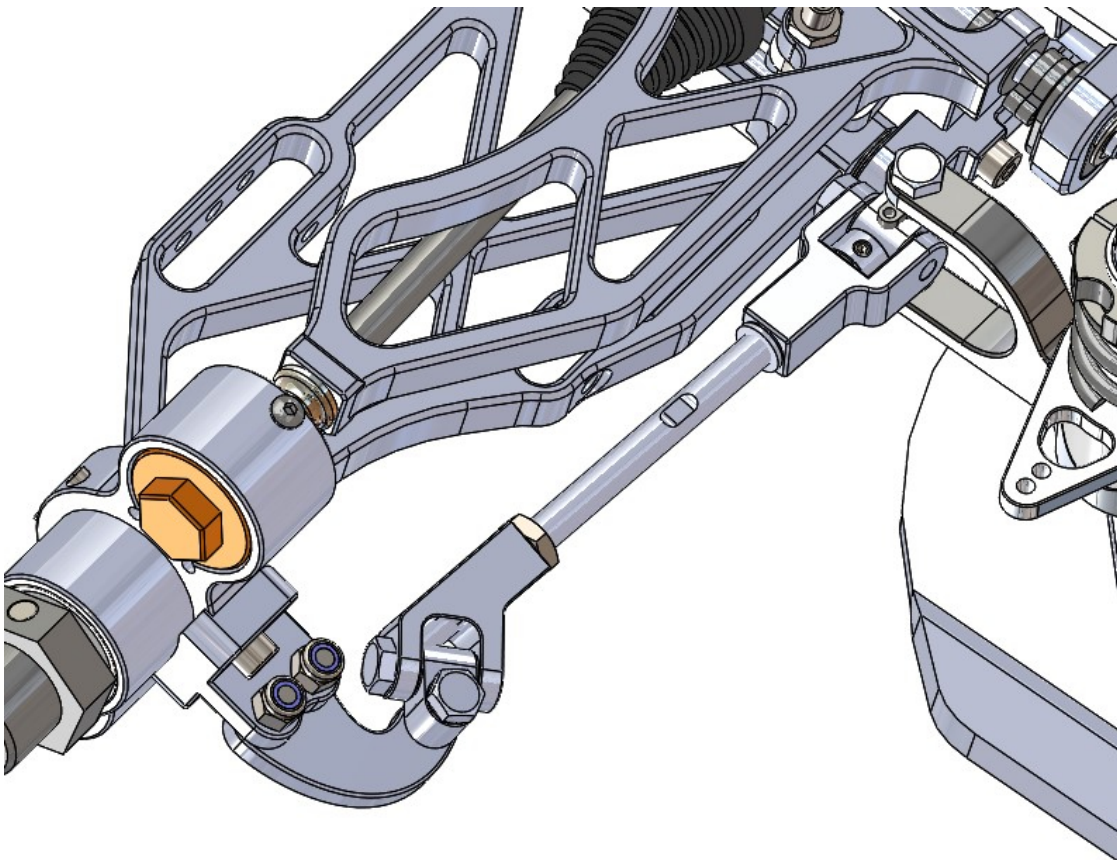
Instructions: Ackermann

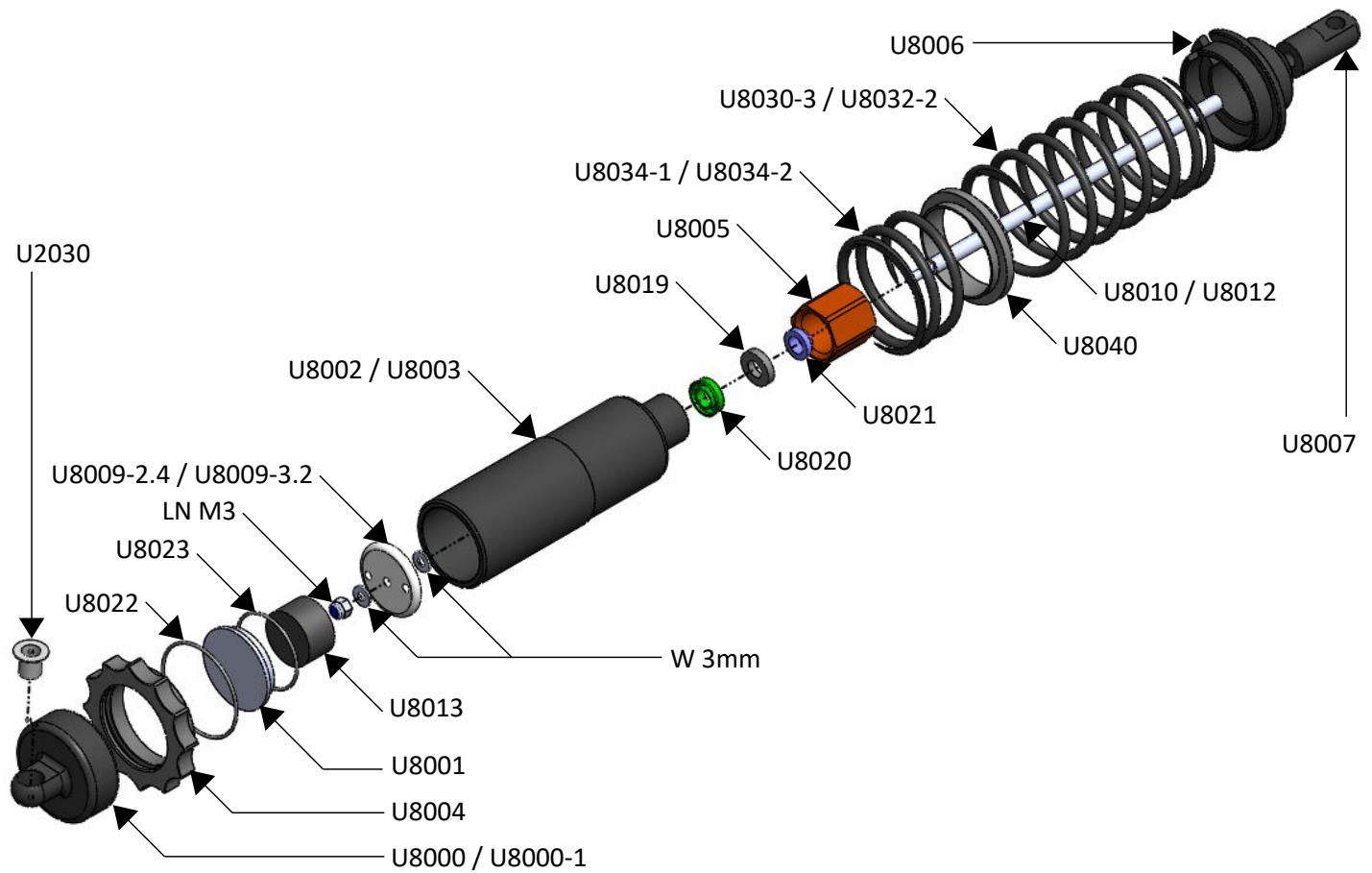
- Press the bearings into the Ackermann plate and secure with M3x5mm pan head bolts.
 - Attach the Ackermann plate to the servo savers using M5x12mm cilinderhead bolts.
 - When mounting on the chassis slide a 10x16x0,3mm shim below and on top of the servo saver assembly.
-
- ✓ **Apply threadlock to all the bolts !**
 - ✓ **Tip:** Wait with mounting the top plate on the servo savers. You may want to mount the servos and center drive shaft first, this assembly will be addressed later on in the manual,

Instructions:

- Insert the slide bearings into the steering rod end connectors and into the steering rod end.
 - Insert “U3011” bolts through the steering rod end connector, steering rod end connector 45° and the steering rod end.
 - Screw the M6 R flat nut and steering rod end 45° on the steering rod.
 - Slide the 5x10x1mm shim onto the steering rod until it rests on the small shoulder.
 - Insert the steering rod into the steering rod end.
 - Secure the rod end by screwing the adjusting collar onto the fine thread of the steering rod. Adjust the nut to the least amount of play, but so that the rod can move freely into the steering rod end !
 - Secure the adjusting collar with M3x4mm setscrew.
 - Use “U3012” servo saver bolt to fasten the assembly to the servo saver
 - Use “U3010” bolt steering lever to attach to the steering lever and use the M4 lock nut on the other side of the lever.
 - Mount the bumpsteer clips on the “U3012” servo saver bolt. **Base setup** is 1 bumpsteer clips above the steering rod assembly
- ✓ **Apply threadlock to all the bolts apart from the fine thread on the steering rod !**

Once finished, the assembly should look like this:





PART NO:	QTY:	DESCRIPTION:	PART NO:	QTY:	DESCRIPTION:
U2030	4	Slide bearing	U8013	4	Volume compensation rubber
U8000	2	Front shock absorber end cap	U8019	4	Slide bushing
U8000-1	2	Rear shock absorber end cap	U8020	4	Oil seal
U8001	4	Volume compensation cap	U8021	4	Dirt scraper
U8002	2	Rear shock absorber housing	U8022	4	O-ring adjusting ring
U8003	2	Front shock absorber housing	U8023	4	O-ring volume compensation cap
U8004	4	Adjusting ring	U8030-3	2	Shock spring front (3dots)
U8005	4	Oil seal end cap	U8032-2	2	Shock spring rear (2dots)
U8006	4	Shock spring disc	U8034-2	2	Shock spring short (2dots)
U8007	4	Rod end	U8034-1	2	Shock spring short (1dot)
U8009-2.4	2	Piston 2.4 holes (front)	U8040	4	Shock spring connector
U8009-3.2	2	Piston 3.2 holes (rear)	LN M3	4	Lock nut M3
U8010	2	Rear shock absorber rod	W 3mm	8	Washer 3mm
U8012	2	Front shock absorber rod			

Instructions:

- Press (U2030) slide bearing in the shock absorber end cap
- Install (U8022) o-ring adjusting ring in the inside of the (U8004) adjusting ring, thread the adjusting ring on the shock absorber housing.
- ✓ **Apply a small amount of grease to the O-ring before mounting on the shock absorber housing.**
- Screw the rod end onto the shock absorber rod, taking care not to damage the rod !
- Push the oil seal, slide bushing and dirt scraper in the underside of the shock absorber housing.
- ✓ **Note:** The “open” side of the oil seal should face towards the shock absorber housing.
- ✓ **Apply a small amount of grease when installing the oil seal.**
- Screw the oil seal end cap onto the shock absorber housing.
- Push the shock absorber rod into the shock absorber housing.
- ✓ **Apply a small amount of grease to the shock absorber rod to prevent damage to the oil seal.**
- Place the pistons on the shock absorber rod with a 3mm washer beneath and on top of the piston. Fasten with a M3 lock nut. Base setup is with 3.2 hole pistons in the rear, 2.4 hole pistons in the front.
- Stick the volume compensation rubber in the volume compensation cap.
- Put the (U8023) o-ring under the edge of the volume compensation cap.

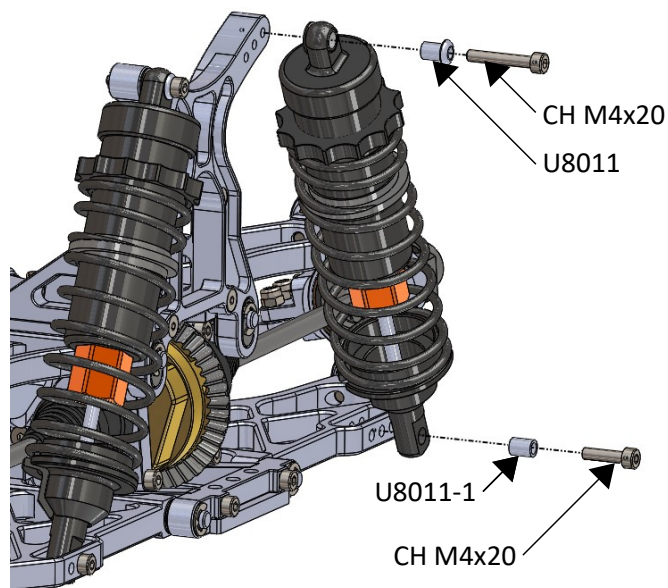
Filling the shock absorbers:

- Fill the shock absorber ~ half full. Move the shock absorber rod gently up and down to let the air trapped beneath the piston escape.
- Fill the shock absorber to about 5mm from the top. Let the shock absorber rest until all air bubbles are out of the oil.
- Put the volume compensation cap on top of the shock, do not push this in place yet !
- Extract the shock absorber rod until it's maximum. Now gently move the shock absorber rod in. There will be oil seeping out around the cap. When the rod is pushed all the way in, retract the rod whilst pushing the compensation cap in place at the same time.
- ✓ **Note:** If you like rebound in the shock: push the rod only partly in before retracting and pushing the cap in place.
- Screw the shock absorber end cap in place.
- Mount the short and long springs in place, with the spring connector between both springs. Base setup for the front springs is (2 dots short spring with 3 dots long spring) and for the rear springs is (1 dot short spring with 2 dots long spring).
- Mount the spring disc over the rod end.

ART NO:	QTY:	DESCRIPTION:
U8011	2	Shock mounting bushing with collar
U8011-1	2	Shock mounting bushing without collar
CH M4x20	4	Cilinderhead M4x20mm

Instructions:

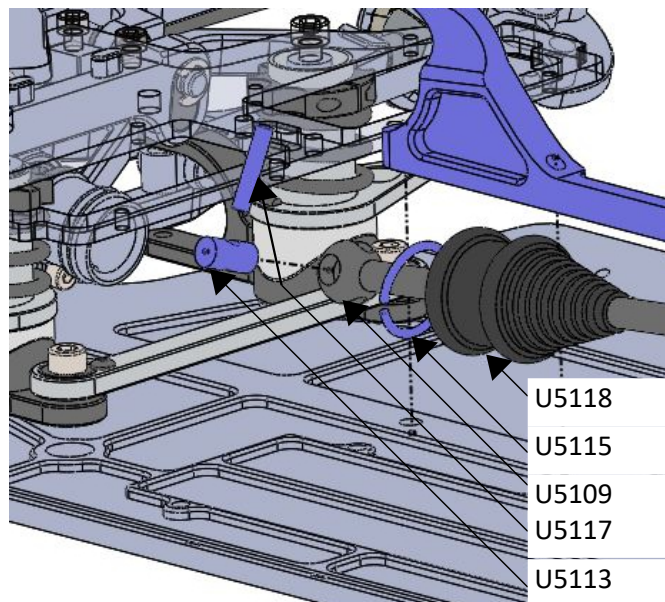
- Mount the shocks to the shocktower using the shock mounting bushing **with collar** and M4x20mm cilinderhead bolts.
- Mount the shocks to the lower wishbones using the shock mounting bushing **without collar** and M4x20mm cilinderhead bolts.
- ✓ **Apply threadlock to all the bolts !**



ART NO:	QTY:	DESCRIPTION:
U5109	1	Drive shaft front
U5113	1	Wheel CVD shaft pin
U5115	1	Drive shaft coupler spring
U5117	1	CVD cup dowelpin 4x20
U5118	1	Drive shaft boot

Instructions:

- **Apply grease before assembly !**
- Attach the front drive shaft to the front bulkhead's drive shaft coupler using the "wheel CVD shaft pin", the "drive shaft dowel pin" and secure by sliding the "drive shaft coupler spring" in the groove of the coupler.
- Slide the driveshaft boot in place
- ✓ **Tip:** Remove the servo plate for better accessibility.

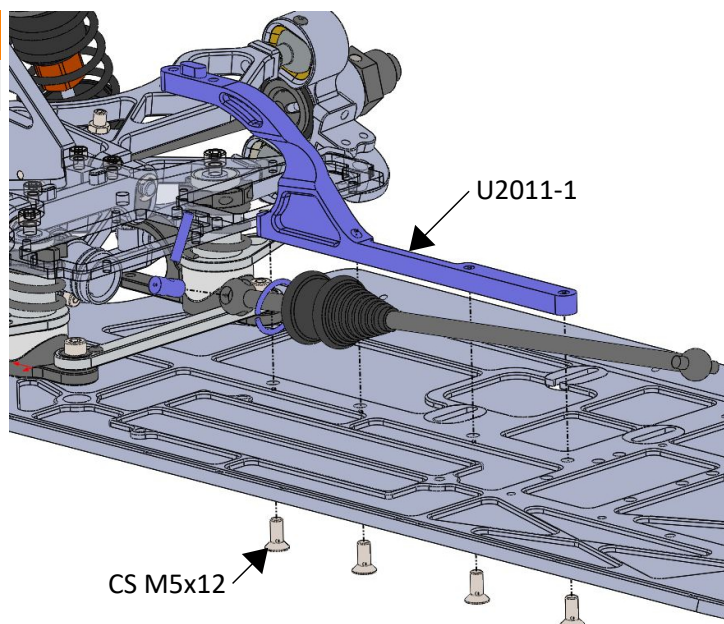


ART NO:	QTY:	DESCRIPTION:
---------	------	--------------

U2011-1	1	Brace Ultron ZR
CS M5x12	4	Countersunk M5x12mm

Instructions:

- Mount the “brace Ultron ZR” to the chassis using M5x12mm countersunk bolts.
- ✓ **Apply threadlock to all the bolts !**

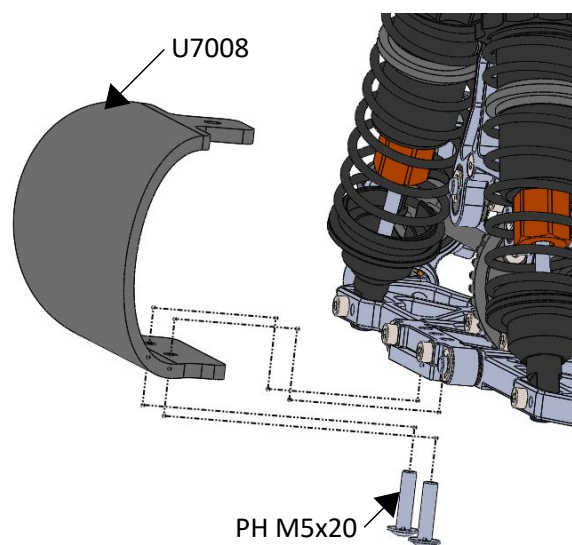


ART NO:	QTY:	DESCRIPTION:
---------	------	--------------

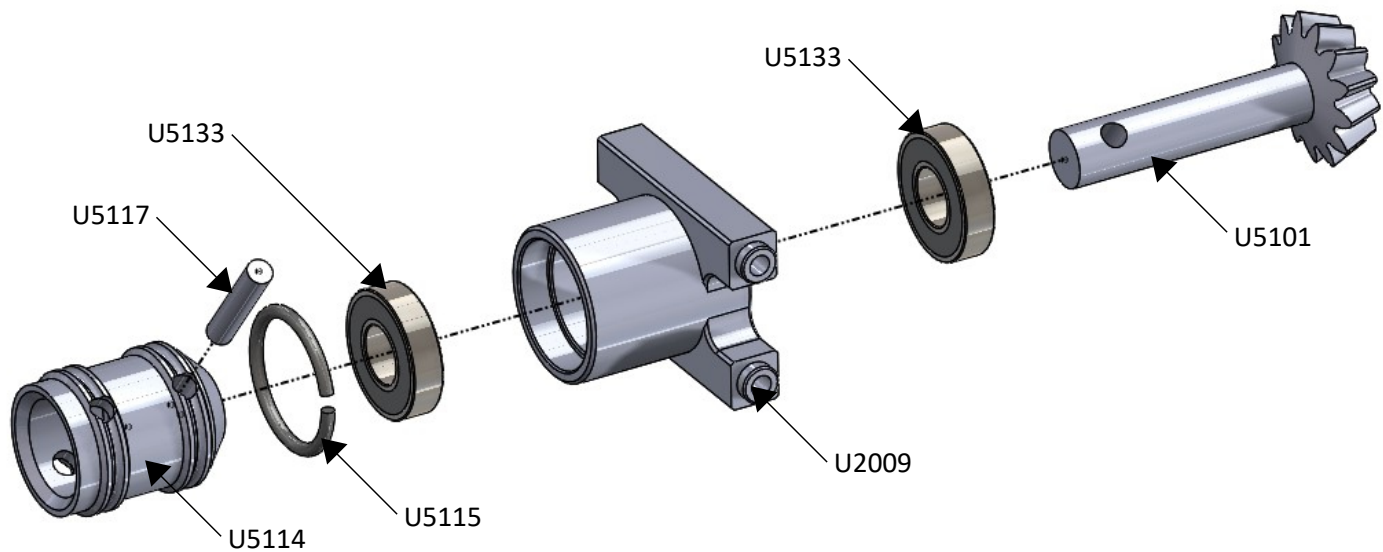
U7008	1	Front bumper
PH M5x20	2	Pan head bolt M5x20mm

Instructions:

- Attach the front bumper using 2 M5x20mm Pan head bolts.
- ✓ **Apply threadlock to all the bolts !**



2) REAR END :



PART NO:	QTY:	DESCRIPTION:	PART NO:	QTY:	DESCRIPTION:
U2009	1	Gear carrier	U5115	1	Drive shaft coupler spring
U5101	1	Differential pinion 13T	U5117	1	CVD cup dowelpin 4x20
U5114	1	Drive shaft coupler	U5133	2	Differential pionion gear bearing 9x20

Instructions:

- Start by inserting the two bearings into the gear carrier
- Slide the differential pinion trough the two bearings
- Slide drive shaft coupler over end of differential pinion
- The CVD cup dowelpin goes through both drive shaft coupler and hole in drive shaft coupler
- **Secure pin by sliding the drive shaft coupler spring in the groove of the drive shaft coupler**

ART NO:	QTY:	DESCRIPTION:
---------	------	--------------

U6003	1	Diffmount right
-------	---	-----------------

U6004	1	Diffmount left
-------	---	----------------

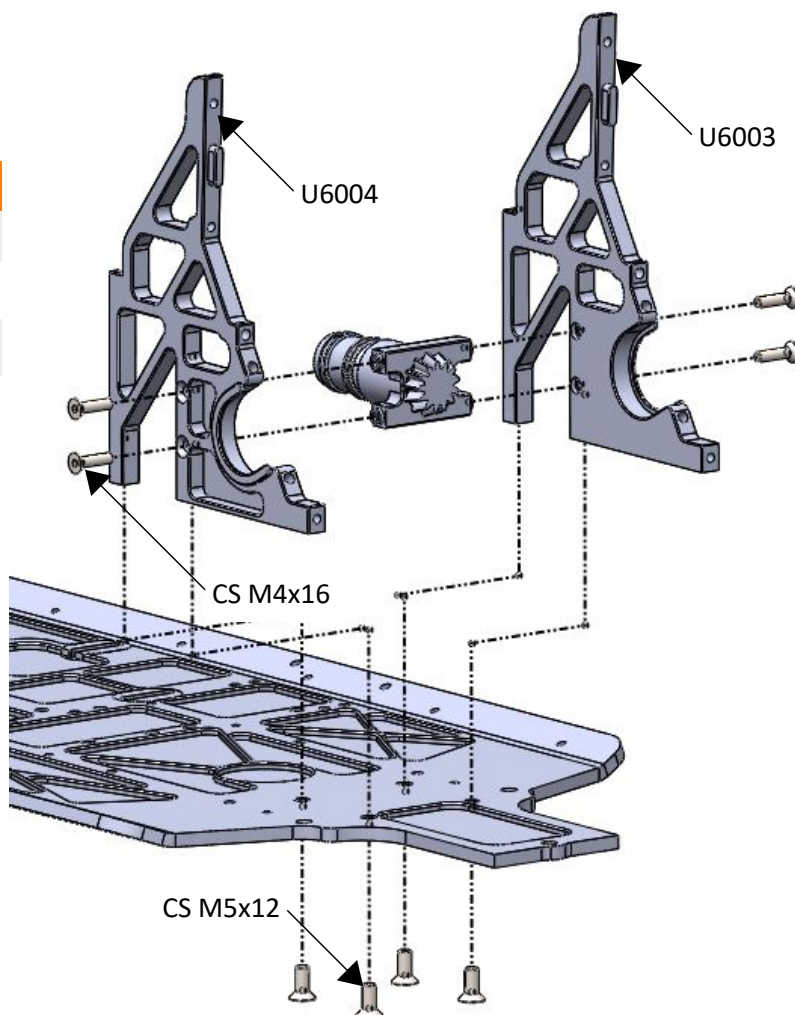
CS M4x16	4	Countersunk M4x16mm
----------	---	---------------------

CS M5x12	4	Countersunk M5x12mm
----------	---	---------------------

Instructions:

- Attach both diffmounts to the gear carrier assembly using 4 M4x16mm countersunk bolts.
- Mount the diffmounts assembly on the chassis using 4 M5x12mm countersunk bolts.

✓ **Apply threadlock to all the bolts !**



ART NO:	QTY:	DESCRIPTION:
---------	------	--------------

U5012	1	Differential carrier
-------	---	----------------------

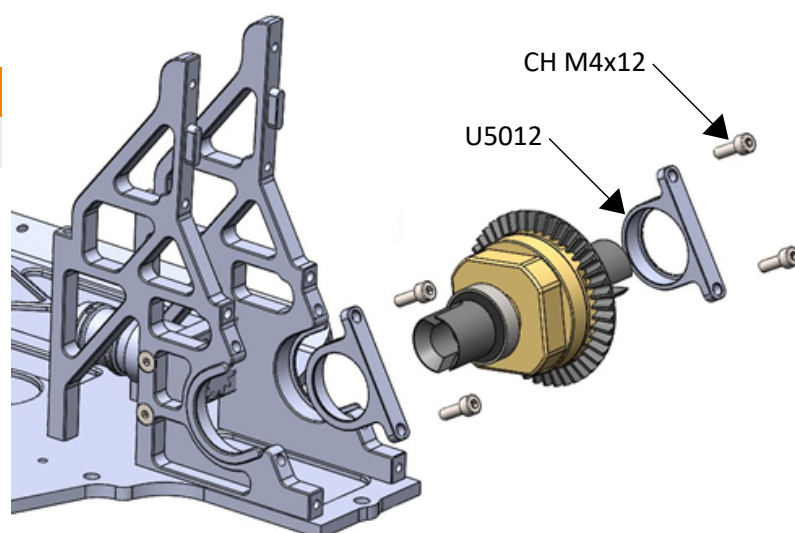
CH M4x12	4	Cilinderhead M4x12mm
----------	---	----------------------

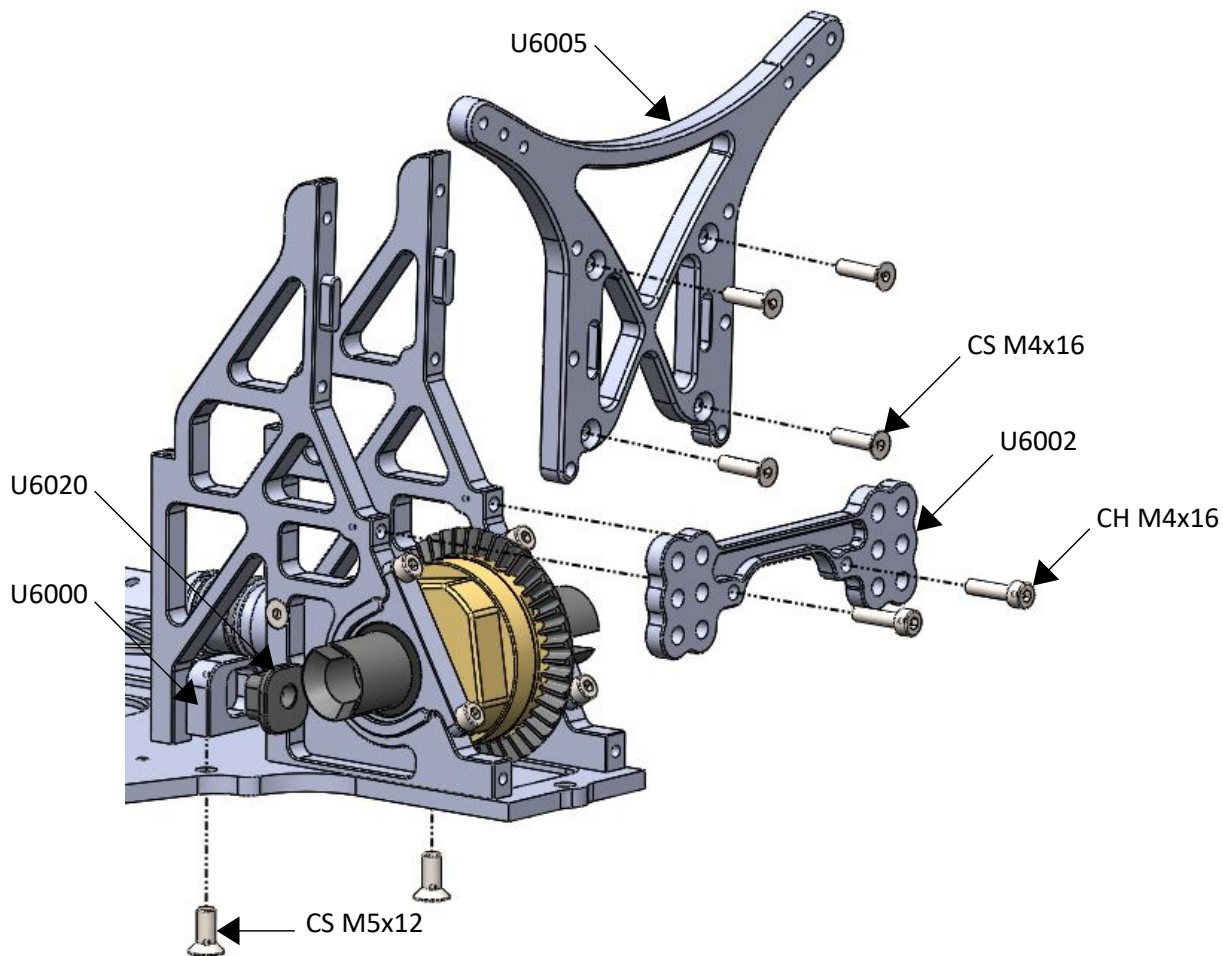
Instructions:

- Slide the differential carrier on the differential bearings and slide the diff assembly into the diffmounts, secure the assembly with 4 M4x12mm cilinderhead bolts.

✓ **Apply threadlock to all the bolts !**

✓ **Note:** Mount the differential as shown on the picture, so the wheels will be driving forward.





PART NO:	QTY:	DESCRIPTION:	PART NO:	QTY:	DESCRIPTION:
U6000	1	Wishbone carrier front side	CH M4x16	2	Cilinderheid M4x16mm
U6002	1	Upper wishbone carrier	CS M4x16	4	Countersunk M4x16mm
U6005	1	Shock tower	CS M5x12	2	Countersunk M5x12mm
U6020	2	Eccentric bushing rear lower wishbone			

Instructions:

- Mount the shocktower to the rear-end assembly using 4 M4x16mm countersunk bolts.
- Mount the upper wishbone carrier to the rear-end assembly using 2 M4x16mm cilinderheid bolts.
- Mount the “wishbone carrier front side” on the chassis using 2 M5x12mm countersunk bolts.

✓ **Apply threadlock to all the bolts !**

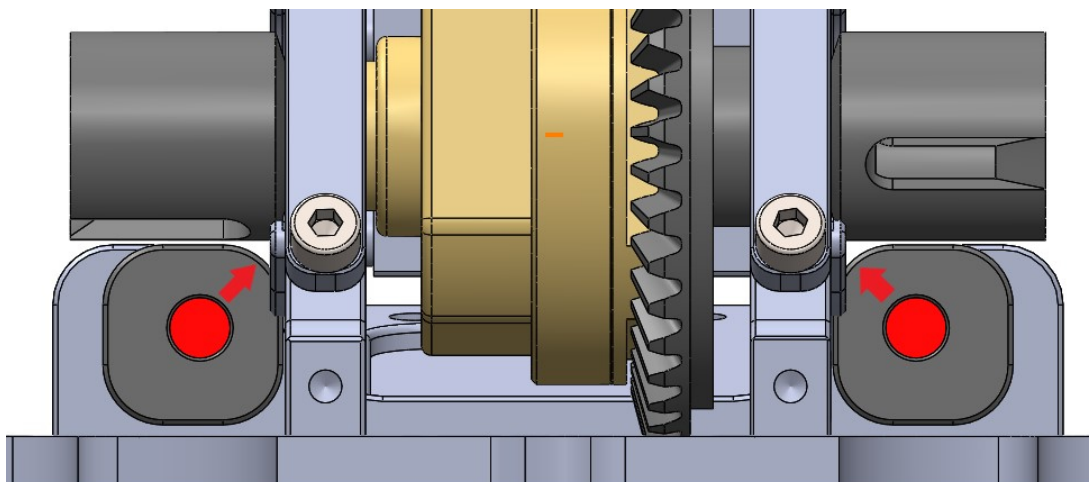
- ✓ **Note:** Before pressing the “eccentric insert rear lower wishbone” into the “wishbone carrier front side” read the instruction on the following page to set up your toe-in and anti-squad.

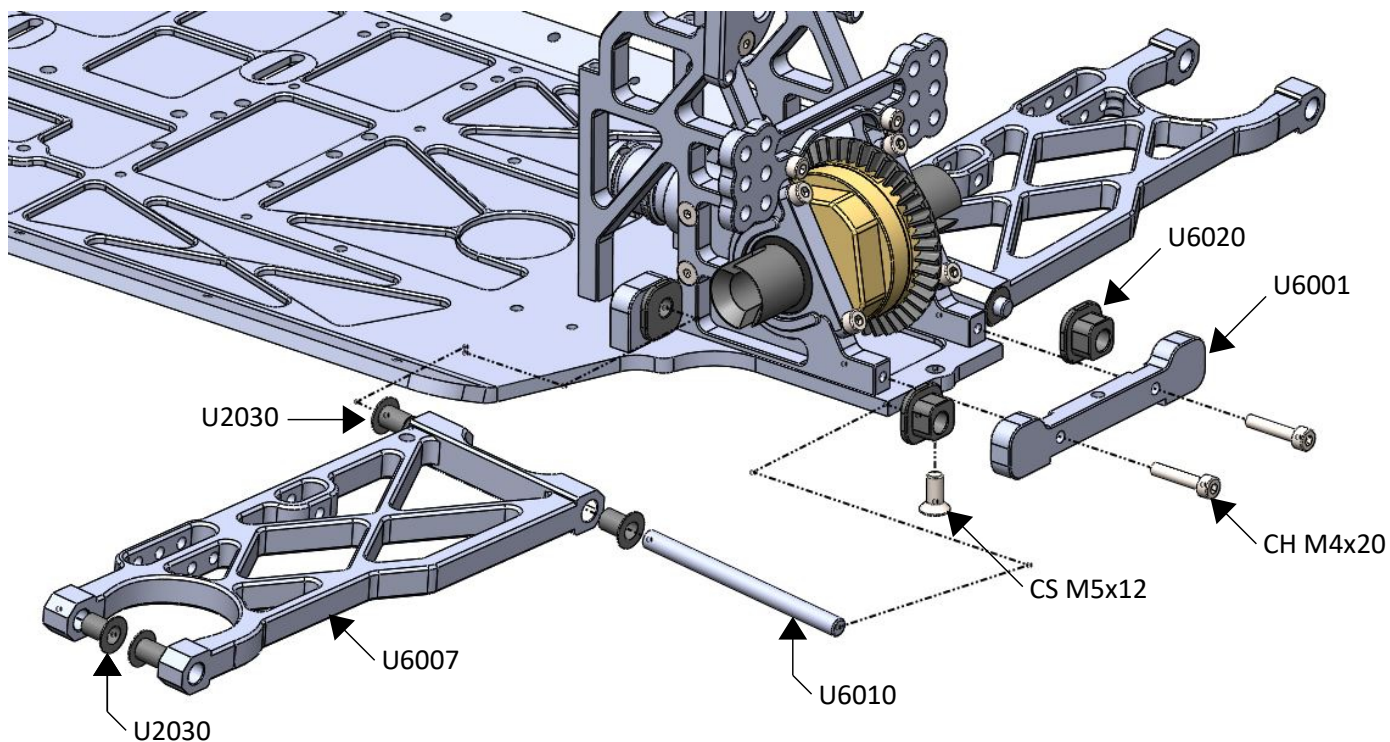
Setup instructions:

- As mentioned on the previous page you can adjust both toe-in and anti squad with the eccentric bushings. Moving from 1° to 3° on both toe-in and anti squad. Below you can find a guide to help you out when building the car. **A good base to start is 2° toe in and 2° anti squad.**
- Tip:** As the eccentric is difficult to see after a while of driving the Ultron, it is advised to mark the eccentric corner. For example drilling a small (1,5mm) hole in the corner of the eccentric.

SETUP	FRONT	REAR
1° TOE-IN +1° SQUAD		
1° TOE-IN +2° SQUAD		
1° TOE-IN +3° SQUAD		
2° TOE-IN +1° SQUAD		
2° TOE-IN +2° SQUAD		
2° TOE-IN +3° SQUAD		
3° TOE-IN +1° SQUAD		
3° TOE-IN +2° SQUAD		
3° TOE-IN +3° SQUAD		

N-R-P
WWW.N-R-P.EU



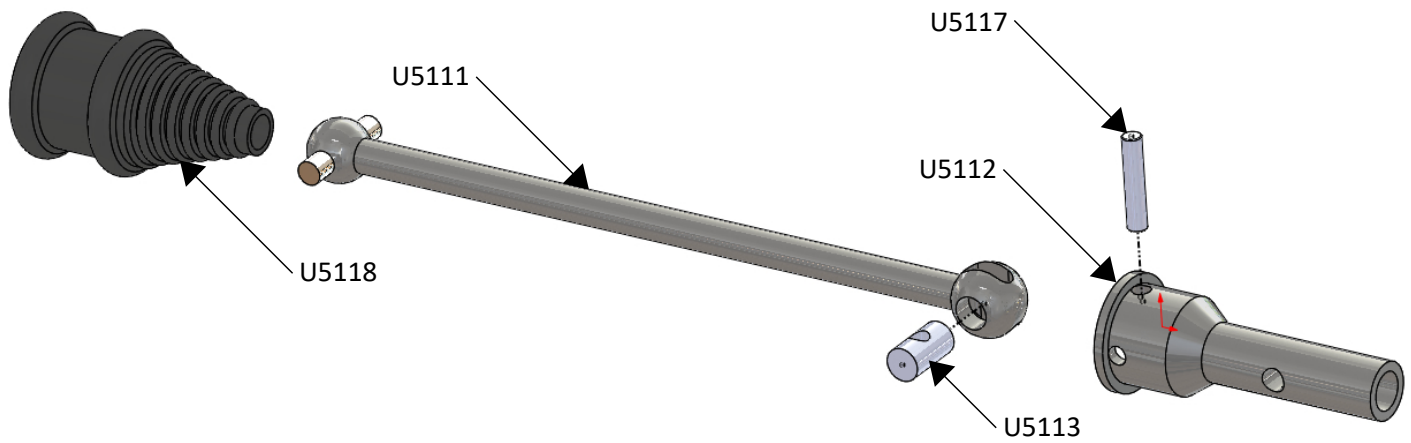


PART NO:	QTY:	DESCRIPTION:	PART NO:	QTY:	DESCRIPTION:
U2030	8	Slide bearing	U6020	2	Eccentric bushing rear lower wishbone
U6001	1	Wishbone carrier rear side	CH M4x20	2	Cilinderhead M4x20mm
U6007	2	Wishbone	CS M5x12	1	Countersunk M5x12mm
U6010	2	Wishbone pin inside			

Instructions:

- Carefully press the slide bearings in the wishbones as shown on the picture.
- Press the eccentric insert rear lower wishbone into the wishbone carrier rear side.
- Insert the wishbone pin through the wishbone and into the eccentric bushings.
- Mount the wishbone carrier rear side to the rear-end assembly using 2 M4x20mm cilinderhead bolts.
- Fasten the wishbone carrier rear side to the chassis using 1 M5x12mm countersunk bolt.

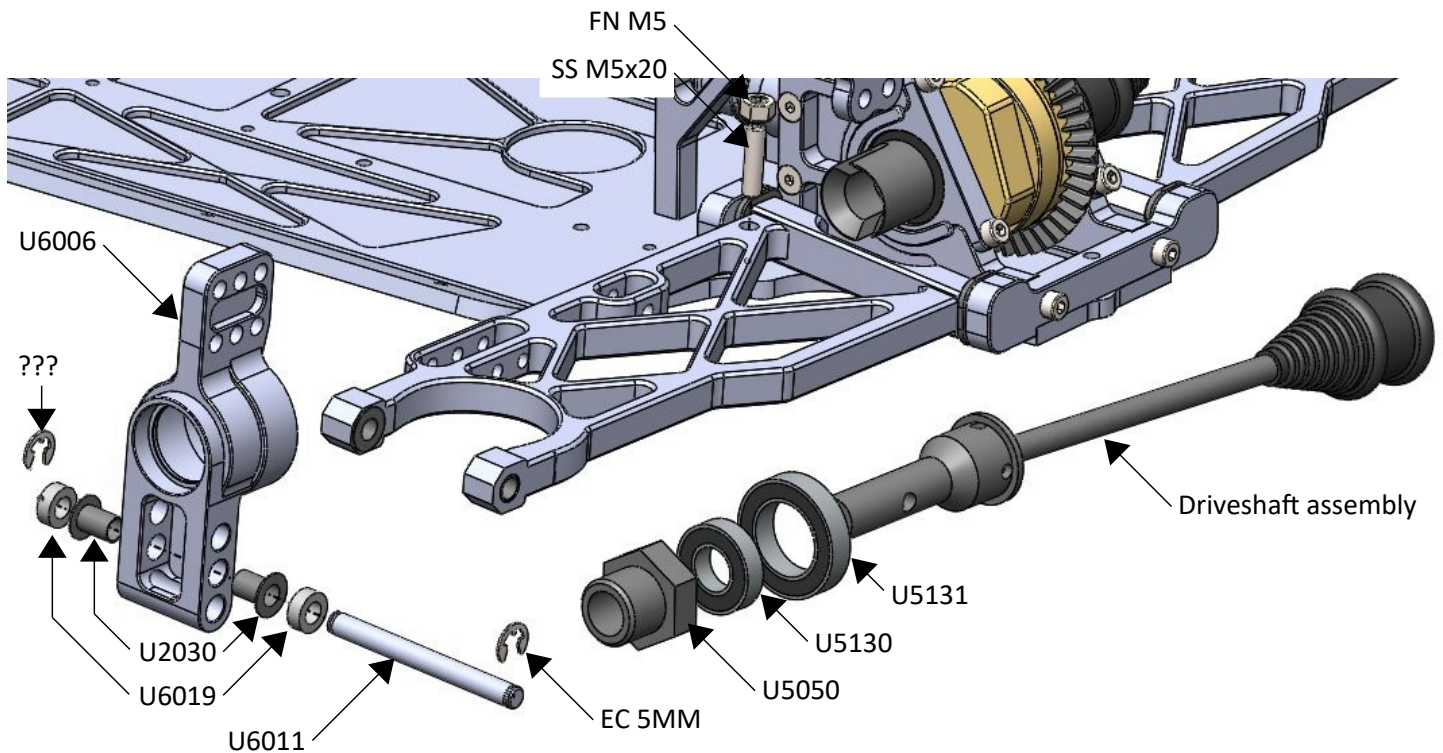
✓ **Apply threadlock to all the bolts !**



PART NO:	QTY:	DESCRIPTION:	PART NO:	QTY:	DESCRIPTION:
U5111	2	Drive shaft wheel	U5117	2	CVD cup dowelpin 4x20mm
U5112	2	Wheel CVD cup	U5118	2	Drive shaft boot
U5113	2	Wheel CVD shaft pin			

Instructions:

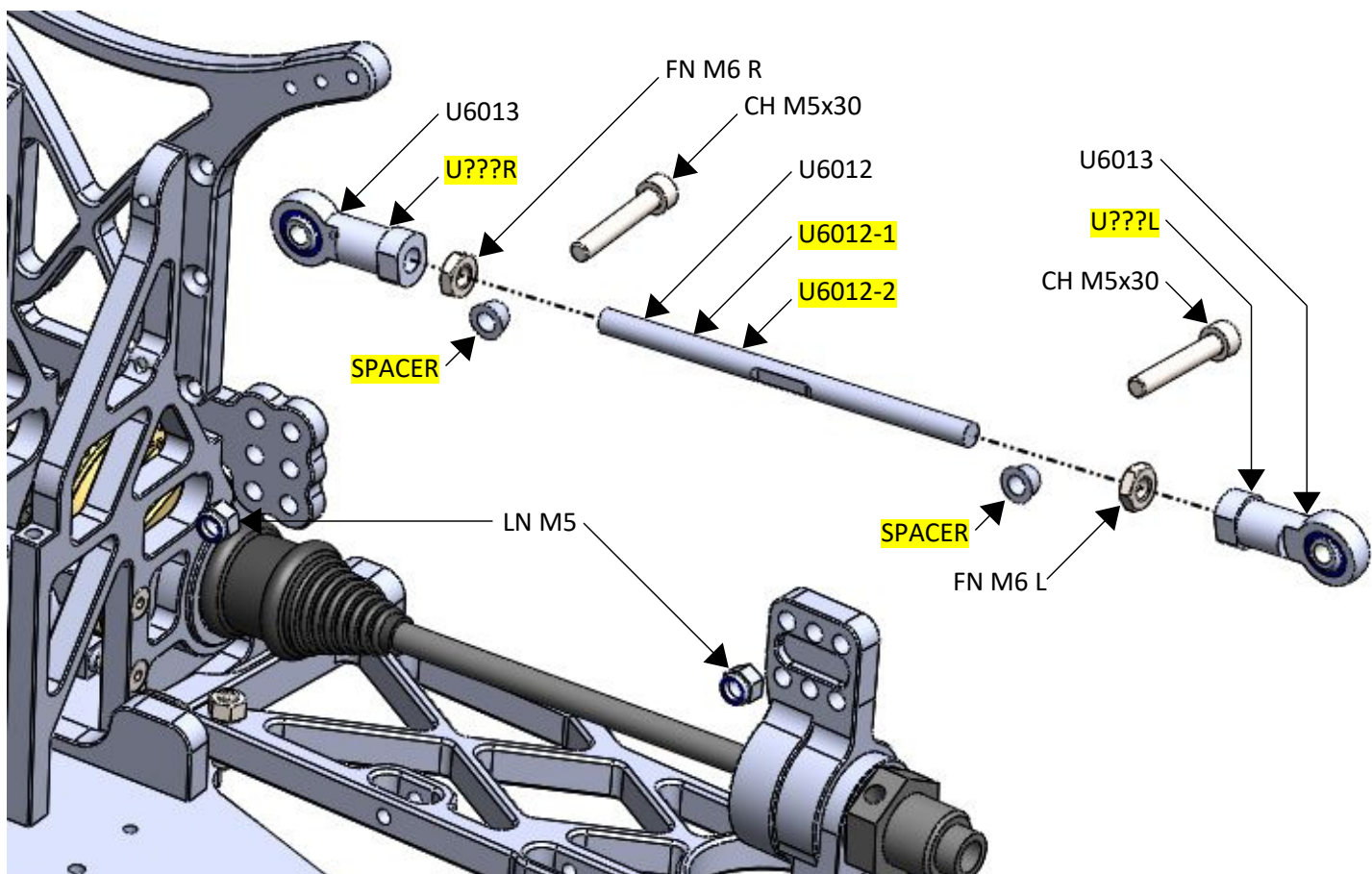
- Apply grease to the drive shaft boot and the drive shaft. Carefully slide the boot over the driveshaft.
- Insert the wheel CVD shaft pin in the driveshaft.
- Insert the driveshaft in the “wheel CVD cup”.
- Secure with the 4x20mm CVD cup dowelpin.
- ✓ **Apply a small amount of grease to the CVD assembly.**



PART NO:	QTY:	DESCRIPTION:	PART NO:	QTY:	DESCRIPTION:
EC 5MM	4	E-clip	U6006	2	Upright
U2030	4	Slide bearing	U6011	2	Wishbone pin outside
U5050	2	Wheel hex hub	U6019	4	Adjusting bushing rear upright 4mm
U5130	2	Wheel bearing small	FN M5	2	Flat nut M5
U5131	2	Wheel bearing big	SS M5x20	2	Setscrew M5x20mm

Instructions:

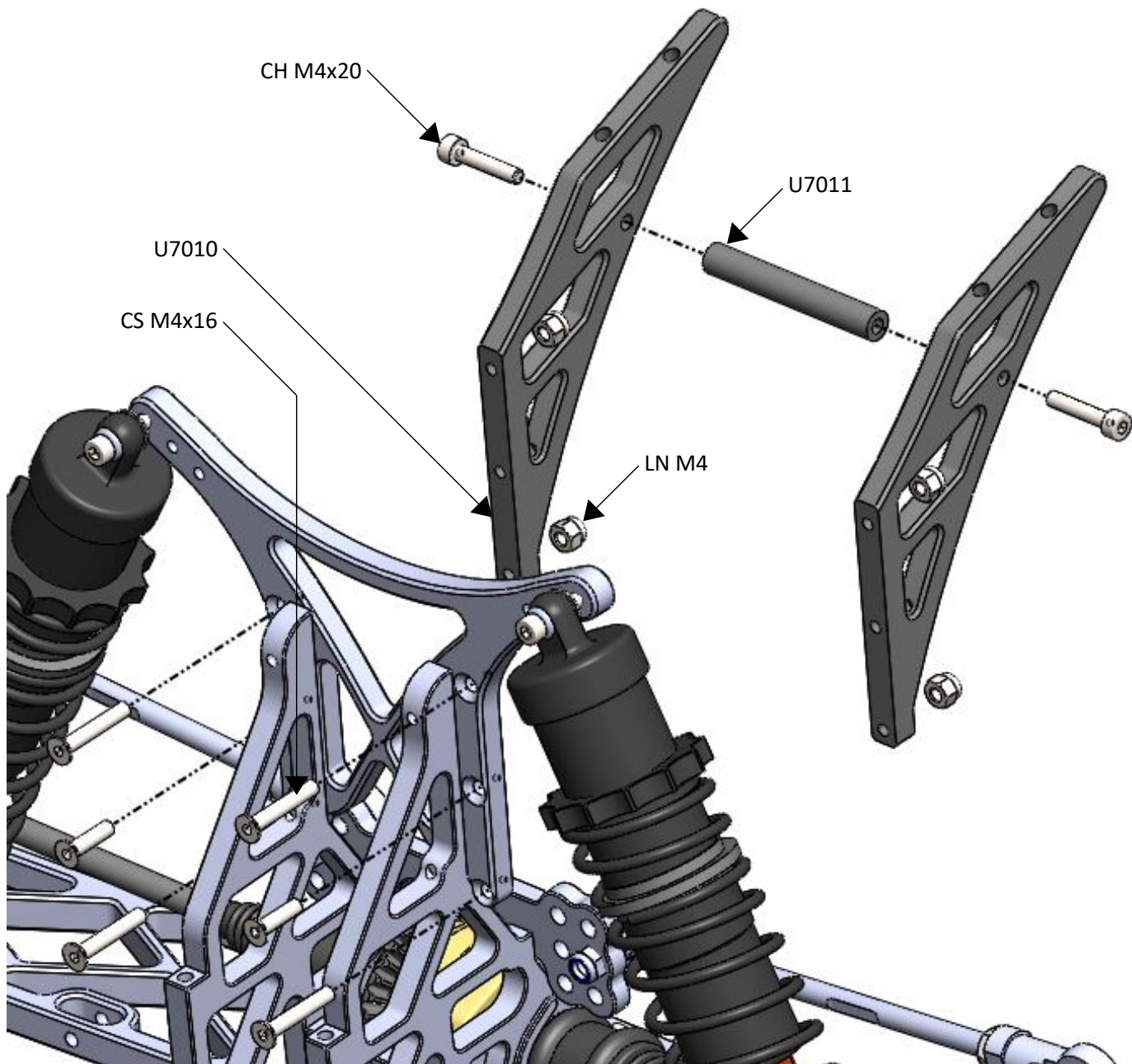
- Screw the M5x20mm setscrews into the wishbones and lock with M5 flatnuts. These setscrews will be used later on to limit the max amount of suspension travel (droop).
- Assemble the drive shaft and bearing into the uprights. For correct mounting order please refer to the front upright assembly on page 10.
- Carefully press the slide bearings into the uprights (middle position as shown on the picture is most commonly used and a good starting setup).
- Mount the uprights to the wishbones with the wishbone pins and secure with E-clips. A good base setup for the Ultron is with 1 spacer on each side of the upright.



PART NO:	QTY:	DESCRIPTION:	PART NO:	QTY:	DESCRIPTION:
U6012	2	Upper wishbone 130mm	FN M6 L	2	Flat nut M6 left thread
U6013	4	Balljoint plastic	FN M6 R	2	Flat nut M6 right thread
CH M5x30	4	Cilinderhead M5x30mm	LN M5	4	Lock nut M5
OPTIONAL / TUNING PARTS:					
PART NO:	QTY:	DESCRIPTION:	PART NO:	QTY:	DESCRIPTION:
U6012-1	2	Upper wishbone 122mm	U???L	2	Balljoint steel
U6012-2	2	Upper wishbone 138mm	U???R	2	Balljoint steel
Spacer	4	Spacer			

Instructions:

- Assemble the upper wishbone, using 1 left hand thread and 1 right hand thread balljoint an docrresponding nuts.
- Fasten, using M5x30mm cilinderhead bolts and M5 lock nuts.
- ✓ **Apply threadlock to all bolts !**
- ✓ Parts marked in **YELLOW** are optional/tuning parts.



PART NO: QTY: DESCRIPTION:

U7010	2	Wing mount
U7011	1	Wing mount distance bushing
CH M4x20	2	Cylinderhead M4x20mm

PART NO: QTY: DESCRIPTION:

CS M4x16	6	Countersunk M4x16mm
LN M4	4	Locknut M4 (optional)

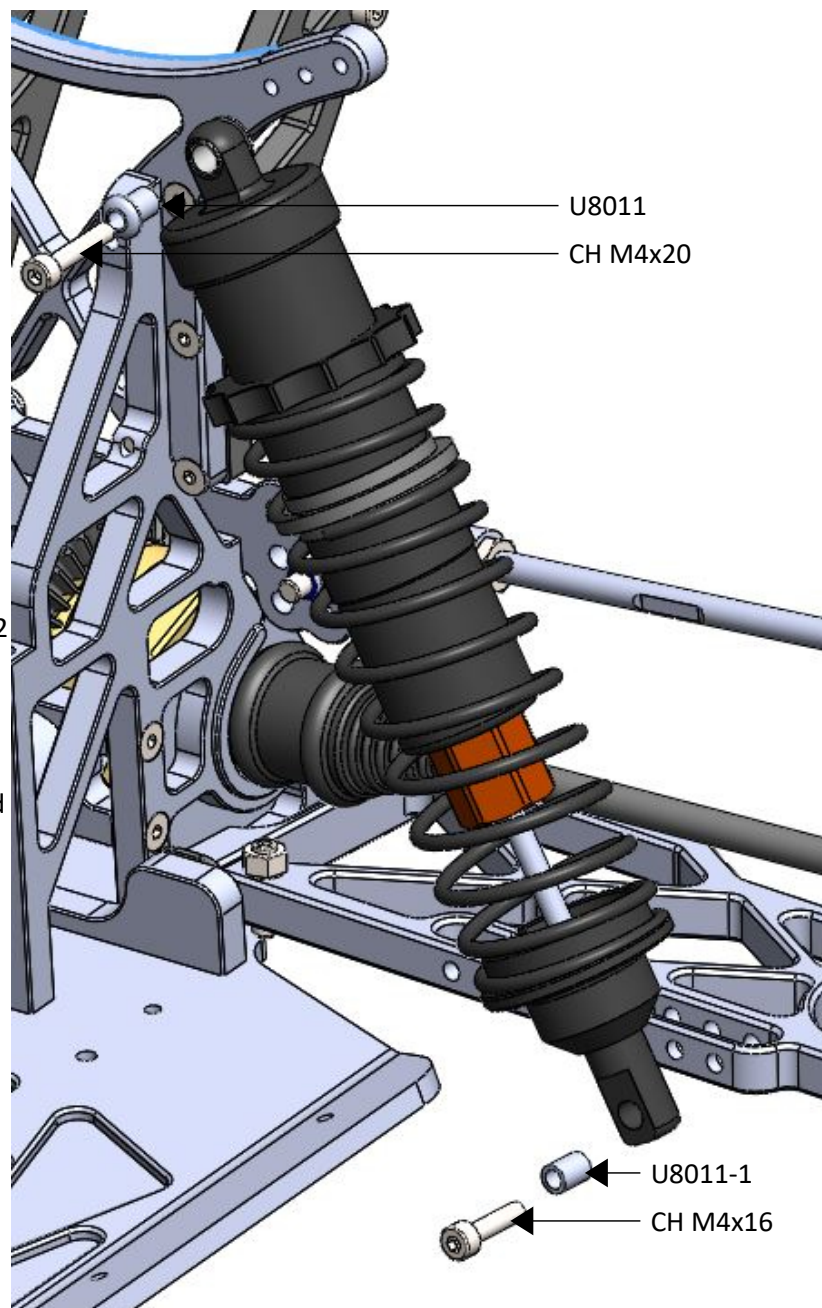
Instructions:

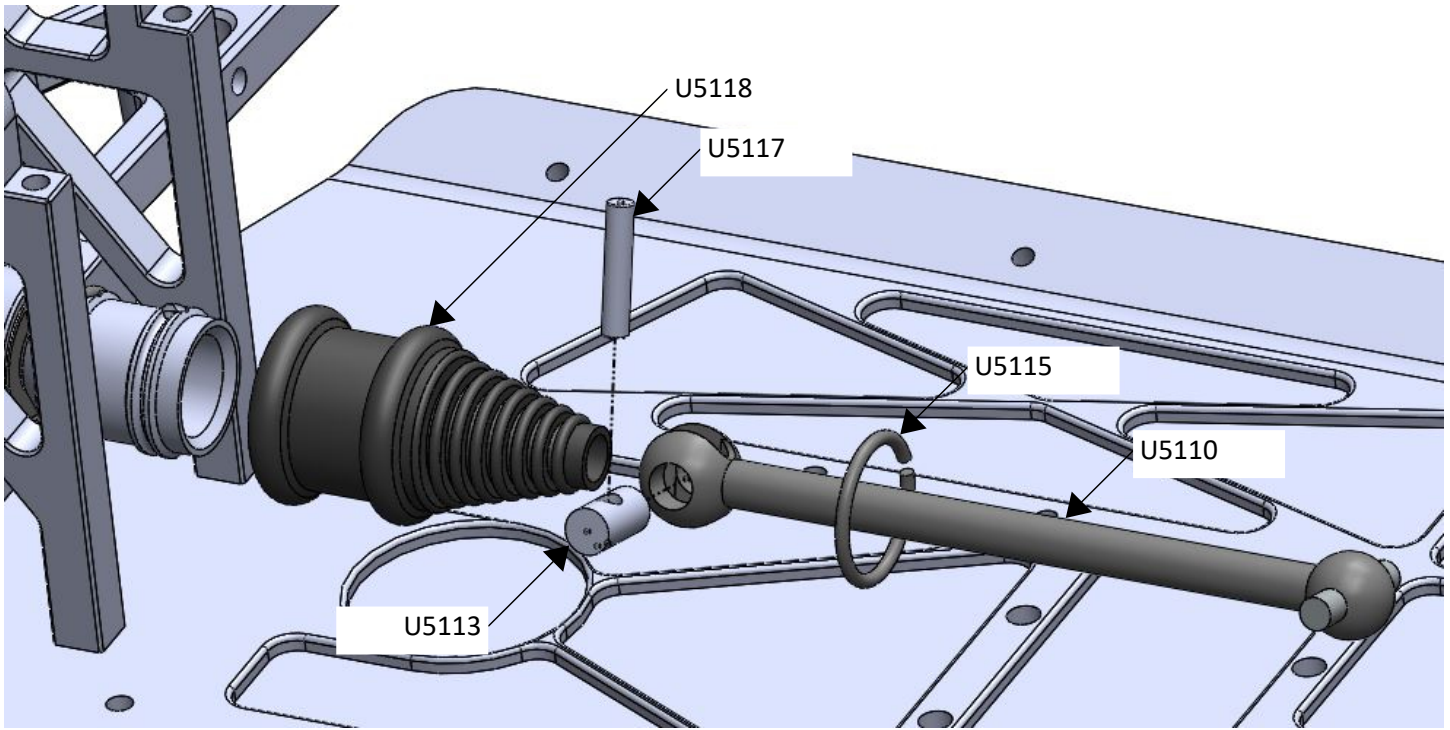
- Attach the wing mount distance bushing between both wingmounts using M4x20mm cylinderhead bolts.
- Attach the wing mounts to the shocktower using M4x16 countersunk bolts.
- ✓ **Tip:** For extra crash resistance, you can use longer bolts for the wingmounts and use locknuts on the rear side of the wing mounts.

ART NO:	QTY:	DESCRIPTION:
U8011	2	Shock mounting bushing with collar
U8011-1	2	Shock mounting bushing without collar
CH M4x16	2	Cilinderhead M4x16mm
CH M4x20	2	Cilinderhead M4x20mm

Instructions:

- For shock assembly please refer to page 15 of this manual.
 - Mount the shocks to the shocktower using 2 shock mounting bushing with collar and 2 M4x20mm cilinderhead bolts.
 - Mount the shocks to the wishbones using 2 shock mounting bushings without collar and 2 M4x16mm cilinderhead bolts.
- ✓ **Apply threadlock to all the bolts !**





PART NO:	QTY:	DESCRIPTION:	PART NO:	QTY:	DESCRIPTION:
U5110	1	Drive shaft rear	U5117	1	CVD cup dowelpin 4x20
U5113	1	Wheel CVD shaft pin	U5118	1	Drive shaft boot
U5115	1	Drive shaft coupler spring			

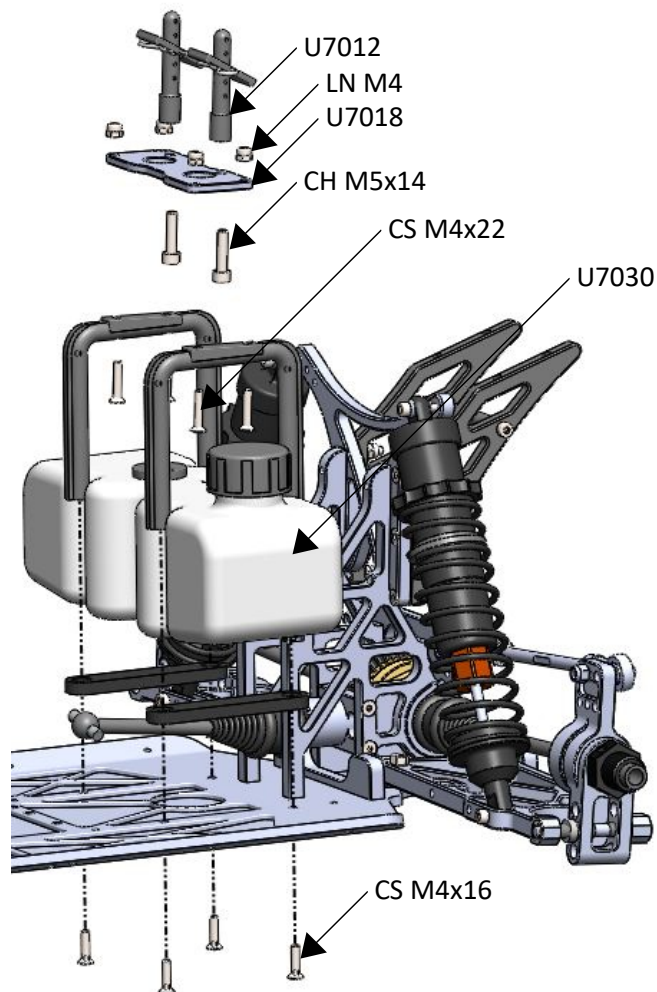
Instructions:

- Place the wheel CVD shaft pin into the rear driveshaft.
- Put the driveshaft into the driveshaft coupler and secure with the dowelpin and coupler spring.
- Mount driveshaft boot.
- ✓ **Apply a small amount of grease to the CVD assembly.**

ART NO:	QTY:	DESCRIPTION:
U7012	2	Body mount
U7018	1	Body plate
U7030	1	Fuel tank assembly
CH M5x14	2	Cilinderhead M5x14mm
CS M4x16	4	Countersunk M4x16mm
CS M4x22	4	Countersunk M4x22mm
LN M4	4	Locknut M4

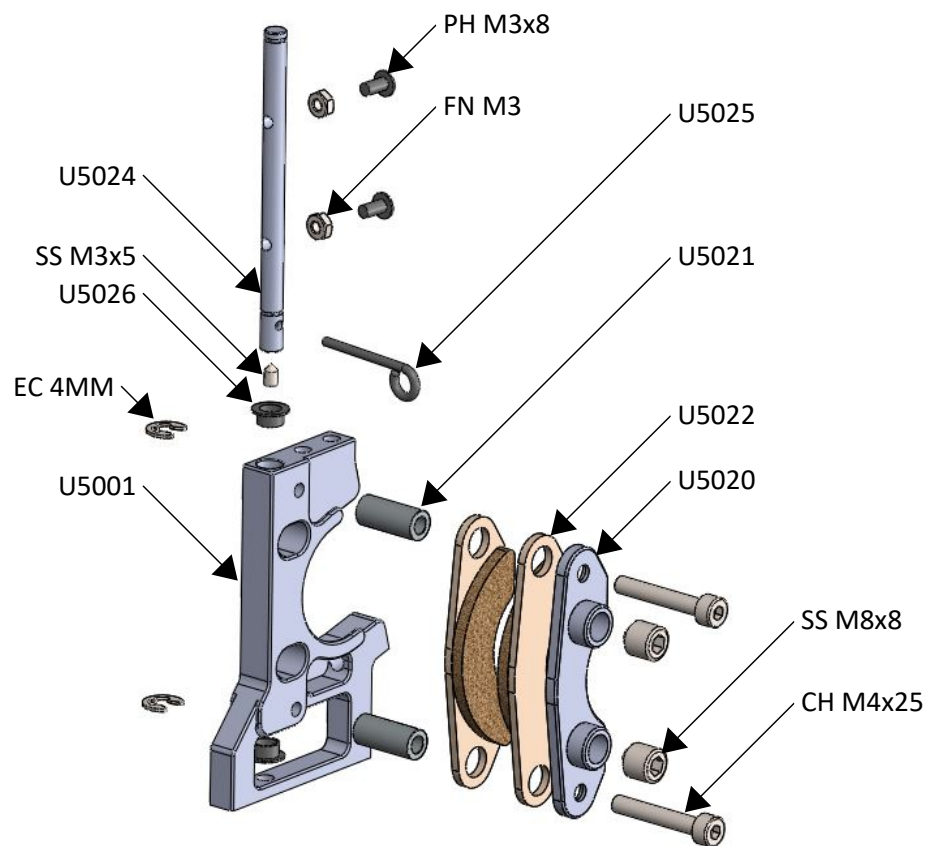
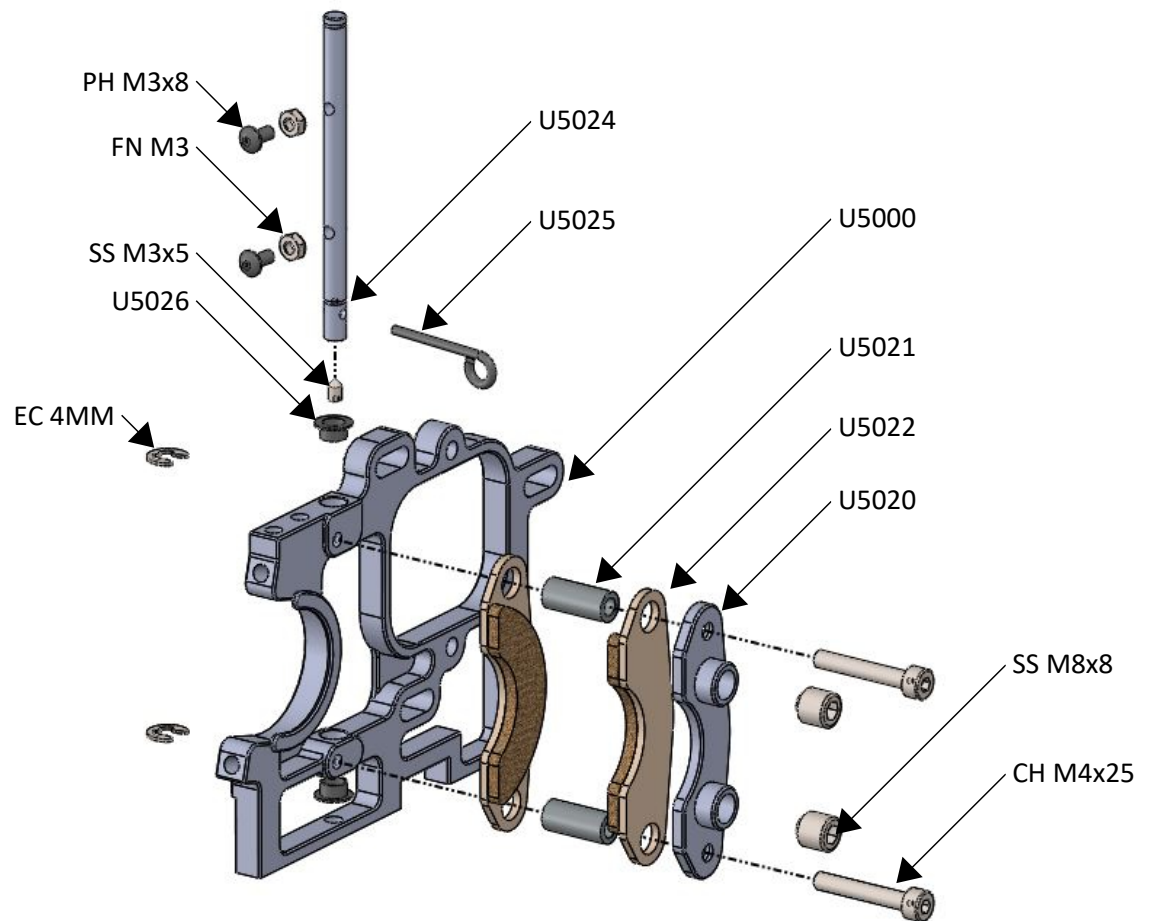
Instructions:

- Mount both body mounts to the body plate using 2 cilinderhead M5x14mm bolts.
- Mount the body plate on the plastic fuel tank mounts using 4 countersunk M4x22mm bolts and 4 M4 lock nuts.
- Slide the fuel tank assembly over the rear drive shaft (the drive shaft goes thru the hole in the fuel tank).



Wait with the following step until you finished building and mounting the central differential:

- Use 4 countersunk M4x16mm bolts to mount the fuel tank assembly on the chassis.



PART NO:	QTY:	DESCRIPTION:	PART NO:	QTY:	DESCRIPTION:
U5000	1	Large drive plate	U5026	4	Slide bearing
U5001	1	Diffmount B	CH M4x25	4	Cilinderhead M4x25mm
U5020	2	Brake carrier	EC 4MM	4	E-clip 4mm
U5021	4	Brake carrier bushing	FN M3	4	Flat nut M3
U5022	4	Brake pad	PH M3x8	4	Pan head bolt M3x8mm
U5024	2	Brake shaft	SS M3x5	2	Setscrew M3x5mm
U5025	2	Brake lever	SS M8x8	4	Setscrew M8x8mm

Instructions:

- Press the slide bearings into the “Large drive plate” / “Diffmount B”.
- Insert brake shaft through the slide bearings.
- Once the brake shafts are in place mount 4mm E-clips on the brake shafts.
- Screw M3x8mm pan head bolts together with flat nut M3 on the brake shafts. (adjust length of the bolts so the brake pads will move even top and bottom.)
- Insert brake levers into the brake shaft in the direction as shown on the pictures. Secure the brake lever with M3x5mm setscrews.
- Slide the brake pads onto the distance bushings and cap off with the brake carrier.
- Attach the brake assembly to the “Large drive plate” / “Diffmount B”
- Mount the M8x8mm setscrews into the brake carriers. These serve to compensate for brake pad wear later on, for the moment, set them flush with the inside of the brake carrier.

✓ **Apply threadlock to all the bolts !**

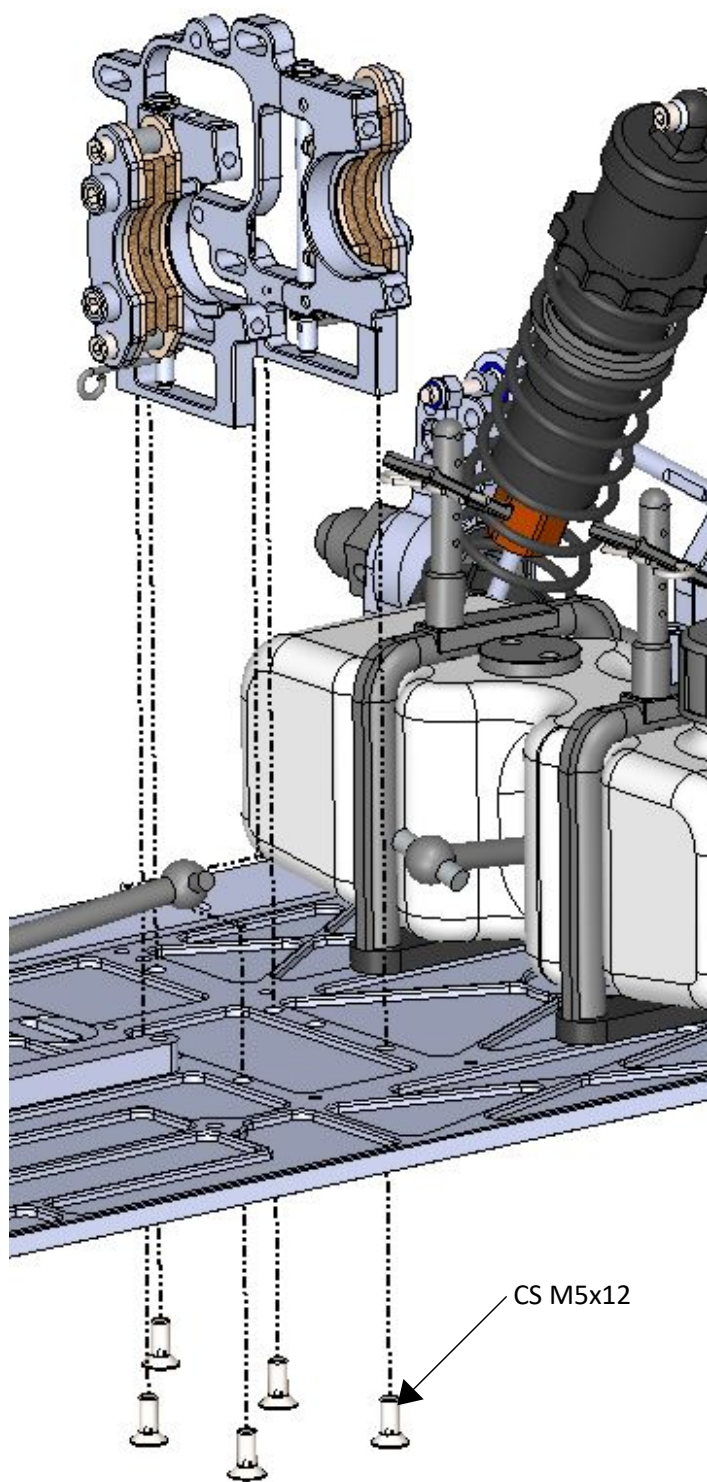
- ✓ **Tip:** To prevent the brake lever from turning it is adviced to make a flat surface on the brake lever where the M3x8mm setscrew locks the brake lever in place.
- ✓ **Tip:** When sliding the brake pads onto the distance bushings, make sure the brake pads move freely onto the distance bushings. If not debur the holes in the brake pads.

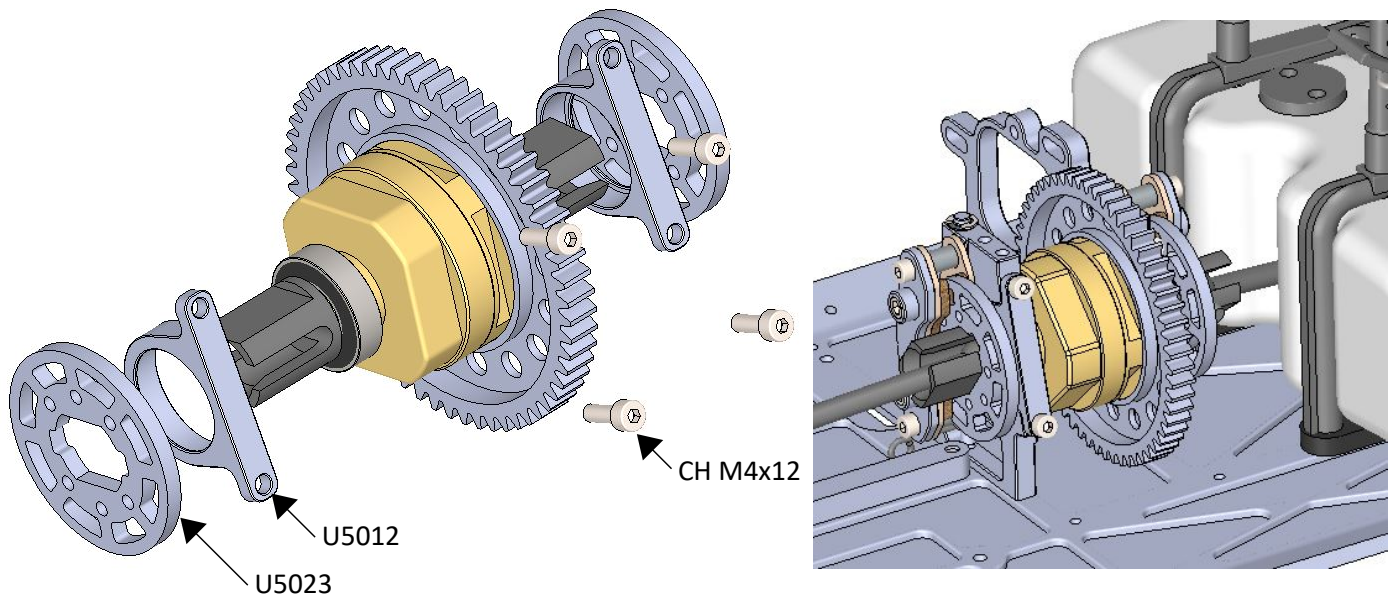
ART NO: QTY: DESCRIPTION:

CS M5x12 5 Countersunk M5x12mm

Instructions:

- Attach "Large drive plate" and "Diffmount B" to the chassis using M5x12mm countersunk bolts.
- ✓ **Apply threadlock to all the bolts !**





PART NO:	QTY:	DESCRIPTION:	PART NO:	QTY:	DESCRIPTION:
U5012	2	Differential carrier	CH M4x12	4	Cilinderhead M4x12mm
U5023	2	Brake disc			

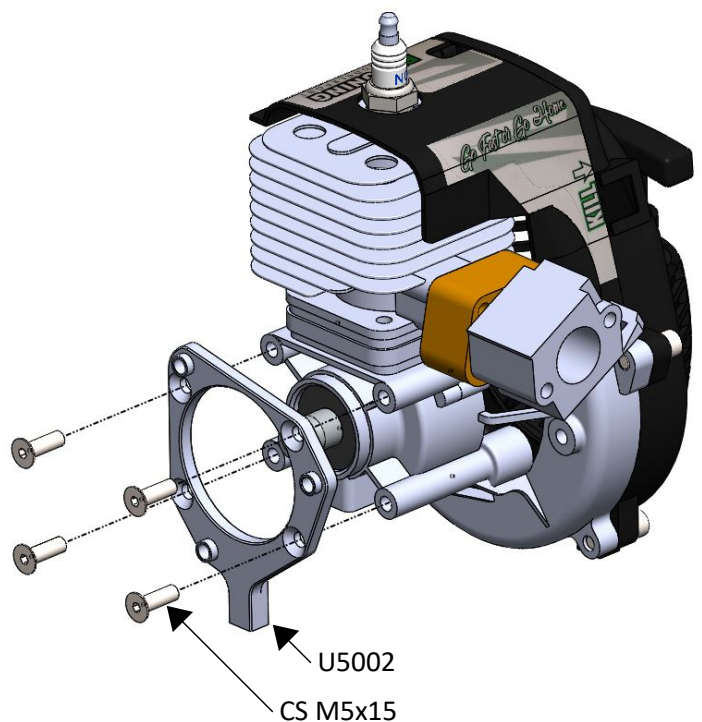
Instructions:

- Slide the differential carriers over the bearings of the center diff assembly.
- Put the brakes on the differential outdrives.
- Insert the assembly into the large drive plate and diffmount B. (To do this loosen the fuel tank assembly first if you have already mounted the fuel tank assembly).
- Fasten with 4 M4x12mm cilinderhead bolts.
- ✓ **Apply threadlock to all the bolts !**

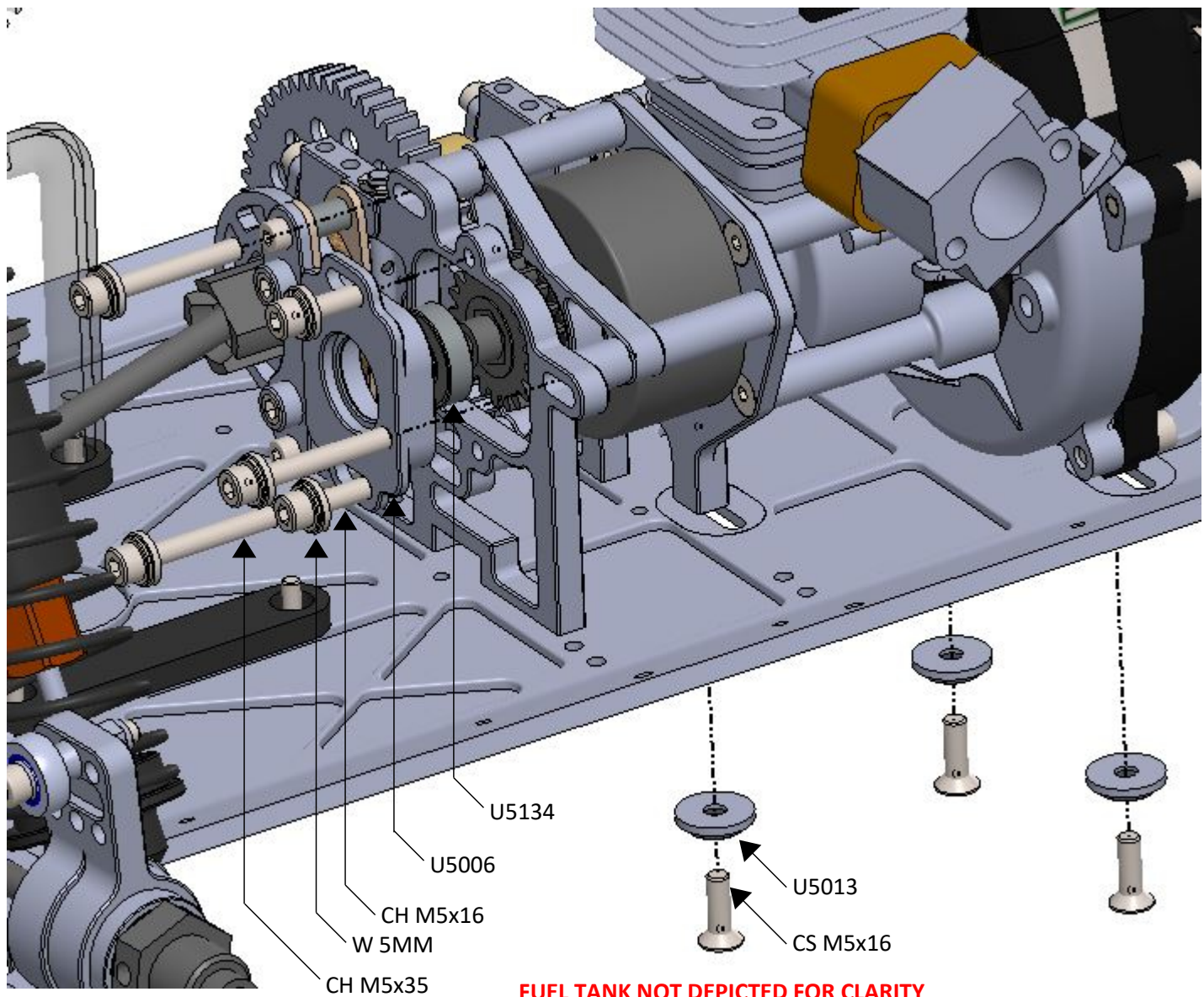
ART NO:	QTY:	DESCRIPTION:
U5002	1	Engine plate
CS M5x15	4	Countersunk M5x15mm

Instructions:

- Attach the engine plate to the engine with 4 M5x15mm countersunk bolts.
- ✓ **Apply threadlock to all the bolts !**
- Fit the clutch of your choice. (**only a small "F1 type" clutch can be used in the Ultron !**)



- Place the long distance bushing on the engine plate.
- Press the clutch bell bearing in the clutch bell carrier.
- Insert the clutch bell through the clutch bell bearing and secure with the E-clips.
- Mate the clutch bell carrier with the long distance bushings.
- Place the short distance bushings in the clutch bell carrier and place the pinion gear on the clutch bell.

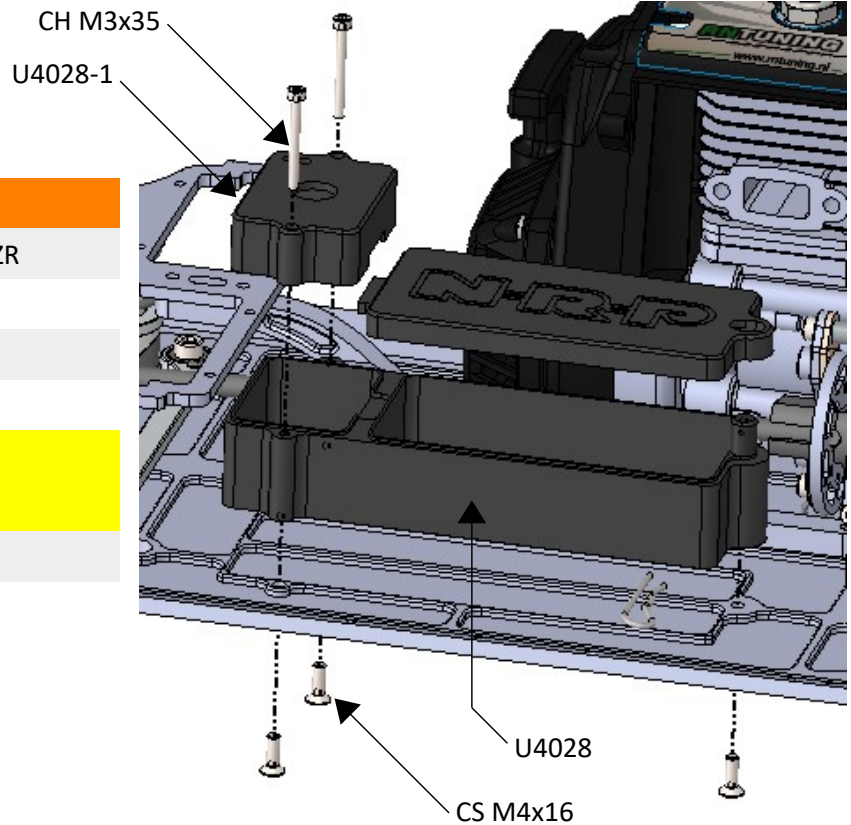


PART NO:	QTY:	DESCRIPTION:	PART NO:	QTY:	DESCRIPTION:
U5006	1	Drive insert plate	CH M5x16	2	Cilinderhead M5x16mm
U5013	3	Engine adjustment washer	CH M5x35	3	Cilinderhead M5x35mm
U5134	1	Clutch bell bearing small	CS M5x16	3	Countersunk M5x16mm
W 5MM	5	Washer 5mm			

Instructions:

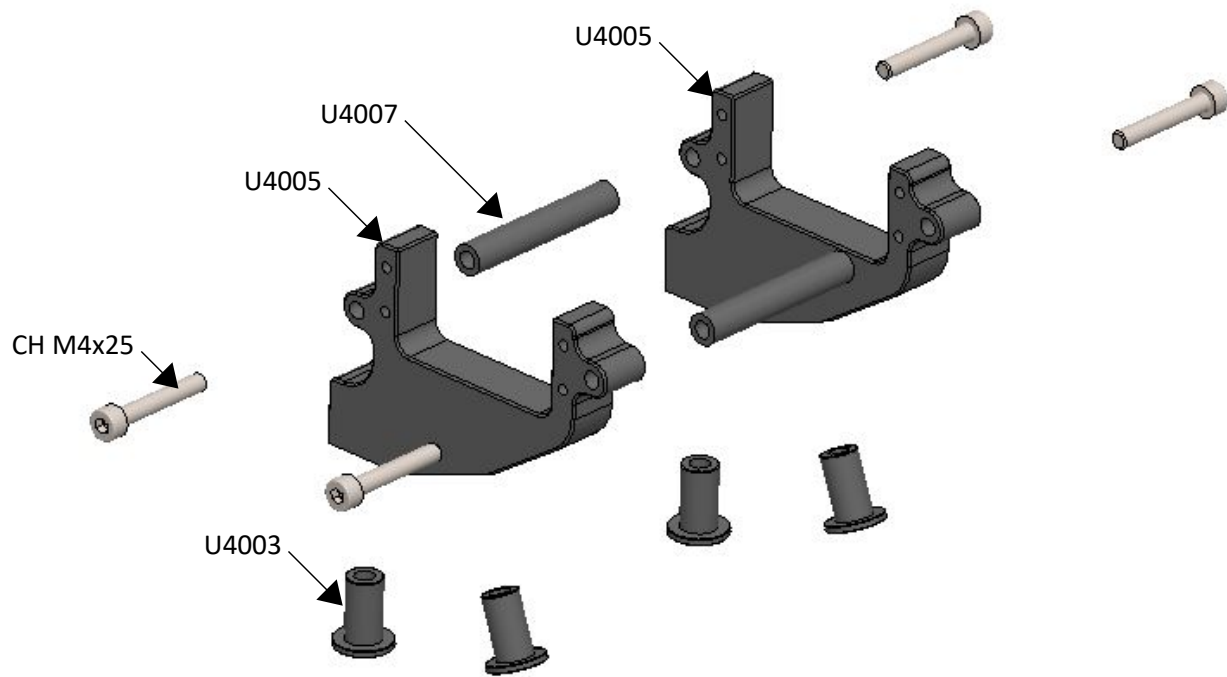
- Attach the engine/clutch assembly to the large drive plate, using M5x35mm cilinderhead bolts and 5mm washers. **Do not tighten the bolts yet !**
- Press the clutch bearing into the drive plate insert and slide the bearing over the clutch bell. Fasten with M5x16mm cilinderhead bolts and 5mm washers.
- Fasten the engine onto the chassis plate using M5x16mm countersunk bolts and the engine adjusting washers.
- Adjust gear mesh and tighten all the bolts.

ART NO:	QTY:	DESCRIPTION:
U4028	1	Receiver / battery box Ultron ZR
U4028-1	1	Receiver box lid Ultron ZR
CH M3x35	2	Cilinderhead M3x35mm
CS M4x16	3	Countersunk M4x16mm
OPTIONAL:		
ART NO:	QTY:	DESCRIPTION:
U4024	1	Antenna support



Instructions:

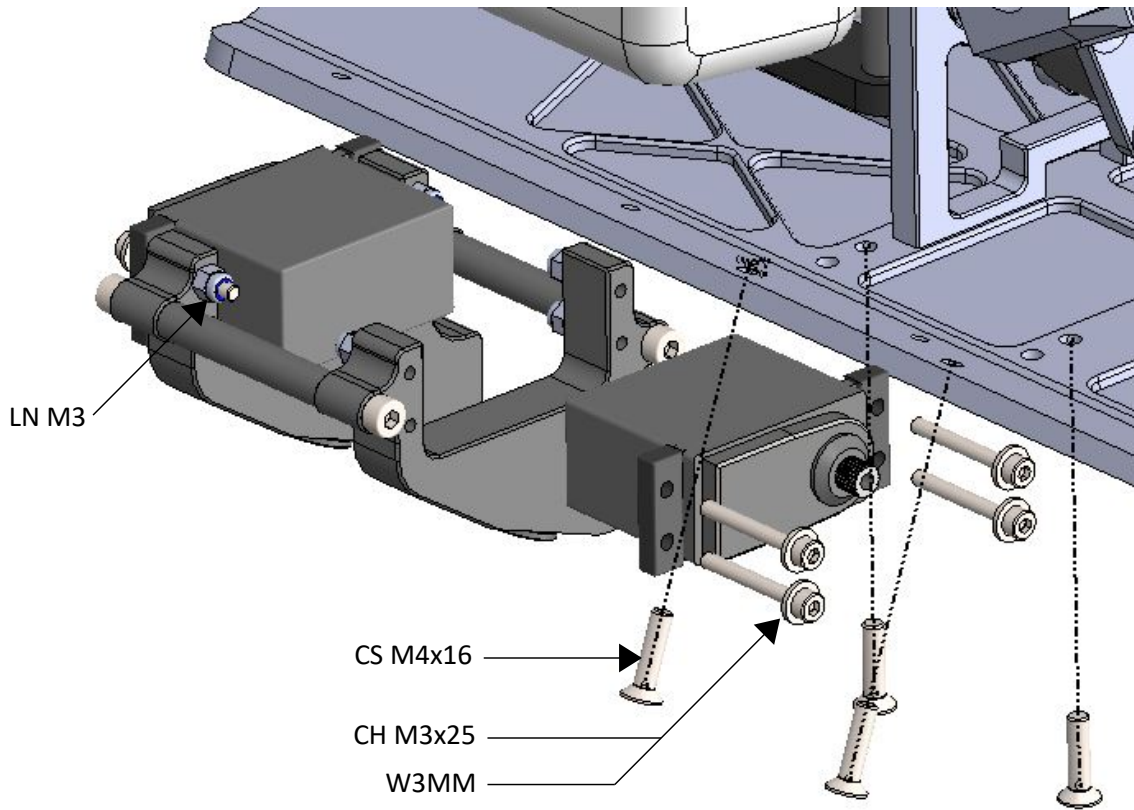
- Attach the receiver / battery box to the chassis using M4x16mm countersunk bolts.
 - **Optional:** Install antenna support U4024 if using a receiver with antenna,
 - Once you have installed the receiver, attach the receiver box lid using M3x35mm cilinderhead bolts.
 - Slide the battery box lid in place and secure with a bodyclip.
-
- ✓ There are no holes pre drilled in the receiver/battery box. You can choose the most convenient location for wires.
 - ✓ **Tip:** We advice using a (shorty) hard case battery and 4mm bullet connectors. Our teamdrivers run a set of wires with and extra set of connectors outside of the battery box for easier turning on and off the power. (For example mounting the connectors on the radio plate.
 - ✓ **Tip:** We advice to use foam around the battery and receiver to prevent damage.



PART NO:	QTY:	DESCRIPTION:	PART NO:	QTY:	DESCRIPTION:
U4003	4	Rubber plug for servo mount	U4007	2	Distance bushing servo mount
U4005	2	Throttle-brake servo mount	CH M4x25	4	Cilinderhead M4x25mm

Instructions:

- Mount both distance bushings between both servo mounts using M4x25mm cilinderhead bolts.
- Press the rubber plugs into the servo mounts



PART NO: QTY: DESCRIPTION:

LN M3 8 Lock nut M3
W3MM 8 Washer 3mm

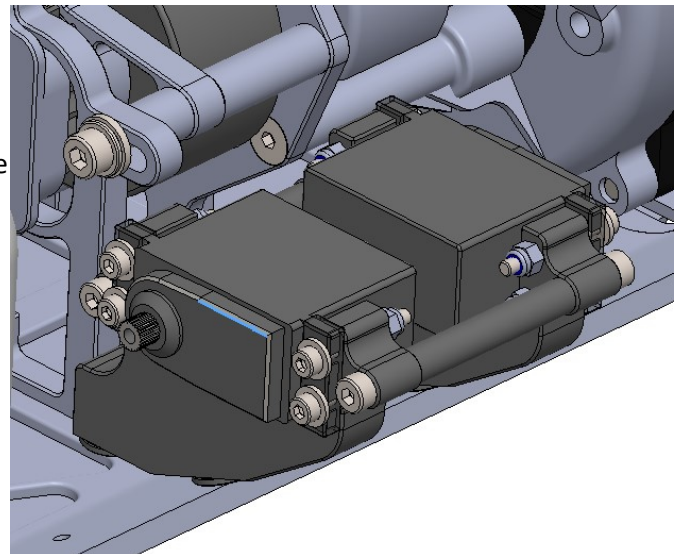
PART NO: QTY: DESCRIPTION:

CH M3x25 8 Cilinderhead M3x25mm
CS M4x16 4 Countersunk M4x16mm

Instructions:

- Mount the servos into the throttle-brake servo mounts, using M3x25 cilinderhead bolts and a washer. Secure with locknuts at the other side of the servo mounts.
- Mount the throttle-brake servo assembly onto the chassis using M4x16mm countersunk bolts.

- ✓ **DO NOT** apply threadlock to the bolts which connect the assembly with the chassis (CS M4x16).
- ✓ **Tip:** We advice to mount the servo's as shown in the picture. With the output shafts towards the inside of the car to prevent damage on the servo-levers.



ART NO:	QTY:	DESCRIPTION:
U4029-1	2	Servo mount "Hitec D845WP size"
U4029-2	2	Servo mount "Multiplex Rhino size"
U4029-3	2	Servo mount "small servo size"
U7012	1	Front body mount
W3MM	8	Washer 3mm
CH M3x8	8	Cilinderhead M3x8mm
CH M3x12	12	Cilinderhead M3x12mm
CH M5x16	1	Cilinderhead M5x16mm

Instructions:

- Mount the steering servo's in the servo mounts for your size of servo, using M3x12mm cilinderhead bolts and 3mm washers.
- ✓ **Note:** Mount the servos as shown in the picture (with the servo output shafts towards the outside)
- ✓ **Note:** If you are using the "small servo size mounts", you need to adjust them to the hole spacing of your servo and fix the provided adjustment piece with M3x12mm cilinderhead bolts.
- Fit the servo mount assembly in the top plate using M3x8mm cilinderhead bolts.
- Attach the front body mount to the top plate using an M5x16mm cilinderhead bolt.
- Fit the assembled top plate onto the car.

✓ **Apply threadlock to all the bolts !**

✓ **Note:** When installing the connection rods between servo and servo saver, make sure both rodends have the exact same length to prevent servo damage !

