

FENIX MISTRAL 2-0

FENIX

MISTRAL 2-0

Rev. 0.6

January 2020



FENIX MISTRAL 2-0

MISTRAL 2-0 is an high-competition, high-quality, 1/10-scale model car intended for persons aged 16 years and older with previous experience building and operating RC model racing cars. This is not a toy; it is a precision racing model. This model racing car is not intended for use by beginners, inexperienced customers, or inexperienced racers or by children without direct supervision of a responsible, knowledgeable adult.

Before building and operating your MISTRAL 2-0, YOU MUST read through all of the operating instructions and instruction manual and fully understand them to get the maximum enjoyment and prevent unnecessary damage. Read carefully and fully understand the instructions before beginning assembly.

Contents of the box may differ from pictures. In line with our policy of continuous product development, the exact specifications of the kit may vary without prior notice.

Take appropriate safety precautions prior to operating this model. You are responsible for this model's assembly and safe operation! Please read the instruction manual before building and operating this model and follow all safety precautions

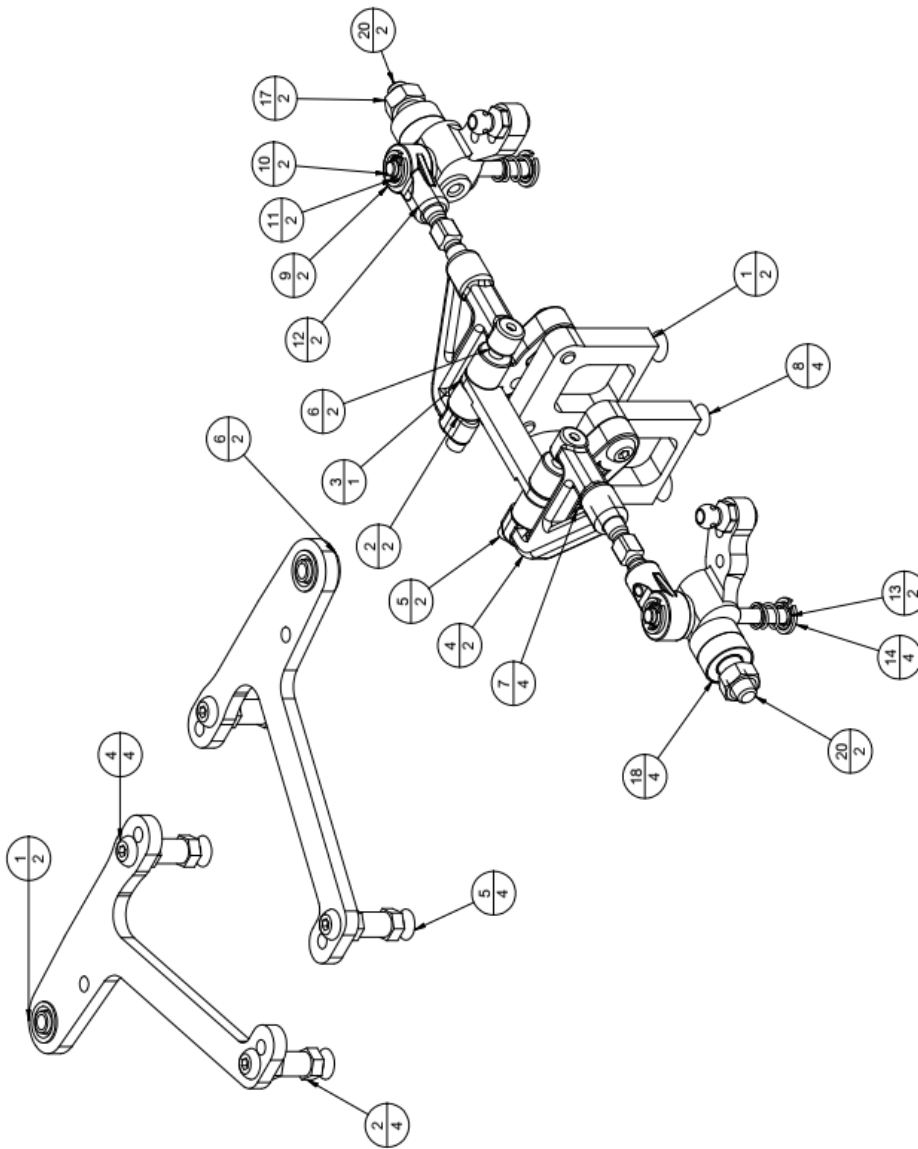
IMPORTANT NOTES – GENERAL

- This product is not suitable for children under 16 years of age without the direct supervision of a responsible and knowledgeable adult.
 - Carefully read all manufacturers warnings and cautions for any parts used in the construction and use of your model.
 - Assemble this kit only in places away from the reach of very small children.
 - First-time builders and users should seek advice from people who have building experience in order to assemble the model correctly and to allow the model to reach its performance potential.
 - Exercise care when using tools and sharp instruments.
 - Take care when building, as some parts may have sharp edges.
 - Keep small parts out of reach of small children. Children must not be allowed to put any parts in their mouth, or pull vinyl bag over their head.
 - Read and follow instructions supplied with paints and/or cement, if used (not included in kit).
 - Immediately after using your model, do NOT touch equipment on the model such as the motor and speed controller, because they generate high temperatures. You may seriously burn yourself seriously touching them.
 - Follow the operating instructions for the radio equipment at all times.
 - Do not put fingers or any objects inside rotating and moving parts, as this may cause damage or serious injury as your finger, hair, clothes, etc. may get caught.
 - Be sure that your operating frequency is clear before turning on or running your model, and never share the same frequency with somebody else at the same time. Ensure that others are aware of the operating frequency you are using and when you are using it.
 - Use a transmitter designed for ground use with RC cars. Make sure that no one else is using the same frequency as yours in your operating area. Using the same frequency at the same time, whether it is driving, flying or sailing, can cause loss of control of the RC model, resulting in a serious accident.
 - Always turn on your transmitter before you turn on the receiver in the car. Always turn off the receiver before turning your transmitter off.
 - Keep the wheels of the model off the ground when checking the operation of the radio equipment.
 - Disconnect the battery pack before storing your model.
 - When learning to operate your model, go to an area that has no obstacles that can damage your model if your model suffers a collision.
 - Remove any sand, mud, dirt, grass or water before putting your model away.
 - If the model behaves strangely, immediately stop the model, check and clear the problem.
 - To prevent any serious personal injury and/or damage to property, be responsible when operating all remote controlled models.
 - The model car is not intended for use on public places and roads or areas where its operation can conflict with or disrupt pedestrian or vehicular traffic.
 - Because the model car is controlled by radio, it is subject to radio interference from many sources that are beyond your control. Since radio interference can cause momentary loss of control, always allow a safety margin in all directions around the model in order to prevent collisions.
 - Do not use your model:
 - Near real cars, animals, or people that are unaware that an RC car is being driven.
 - In places where children and people gather
 - In residential districts and parks
 - In limited indoor spaces
 - In wet conditions
 - In the street
 - In areas where loud noises can disturb others, such as hospitals and residential areas.
 - At night or anytime your line of sight to the model may be obstructed or impaired in any way.
- To prevent any serious personal injury and/or damage to property, please be responsible when operating all remote controlled models. Failure to follow these instructions will be considered as abuse and/or neglect.
- We have made every effort to make these instructions as easy to understand as possible.
- However, if you have any difficulties, problems, or questions, please do not hesitate to contact the Fenix support team at racing@fenixwaterjet.com . Also, please visit our Web site at www.Fenix-racing.com or www.fenixracingshop.com or <https://www.facebook.com/FenixRacing.it/> the latest updates, set-up information, option parts, and many other goodies. We pride ourselves on taking excellent care of our customers.

Just a quick note.... Read the manual "before" and not after....

Bag A

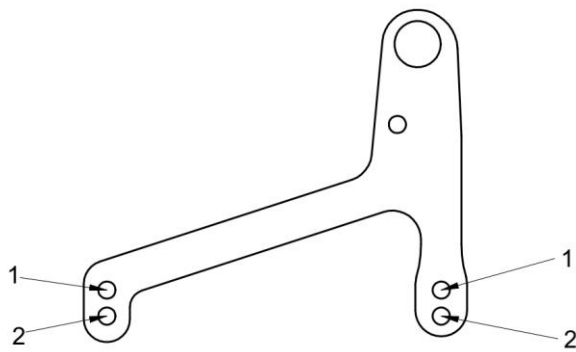
Front End



POS	EPN	DESCRIPTION	QTY
1	M20-9	Front Arms	2
2	FX0052	12mm Alu post	4
4	Hw003	Screw - M3*8 - Hex Socket Button	4
5	Hw007	Screw - M3*8 - Hex Socket Countersunk	4
6	ES6038	ES6 Sphere Holder	2
8*	DP1068	O-ring 5 x 1	2
9*	ES6037	Stera King Pin	2

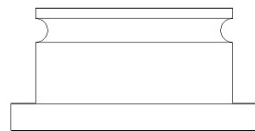
POS	EPN	DESCRIPTION	QTY
1	M20-16	Suspension Mount	2
2	ES6030	Upper arms mount	2
3	M20-13	front brace	1
4	ES6031	Upper arm	2
5	Hw031	Screw - M2*4 - Hex Socket Cylinder	2
6	ES6034	Hinge pin	2
7	Hw029	Screw - M3*2 - Hex Socket Button	4
8	Hw007	Screw - M3*8 - Hex Socket Countersunk	4
9	ES6033	Upper Eyelet	2
10	ES6035	Kingpin 335mm	2
11	ES6037	Stera King Pin	2
12	TR-28-M4	Insert 28 mm	2
13	FX0034	front spring	2
14	Seeger	Seeger 19d. in stelo animal	4
17	Hw006	Self locking nut M4 - standard	2
18	FX105	Bearing 10mm 5mm 4mm	4
19*	340073	340073 mozzo SK	1
20	330075	330075 assale	2
21*	340073	340073 mozzo DX	1
22*	Hw003	Screw - M3*8 - Hex Socket Button	2
23*	FX-FRM4	uniball 6,6	2

FENIX MISTRAL 2-0



Use holes 1 for Ride and similar tires

Use hole 2 for Volante and similar tires

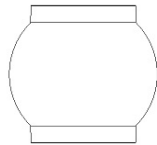


2 x G56038 Sphere holder

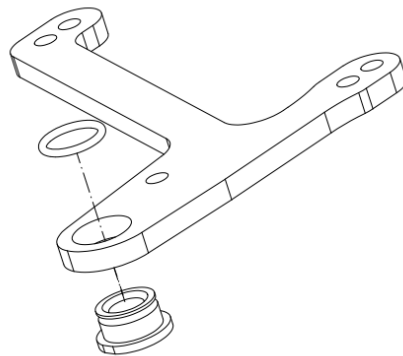
2 x G56037 6mm sphere



Insert the sphere into the holder from the lower side



Make 2 sets



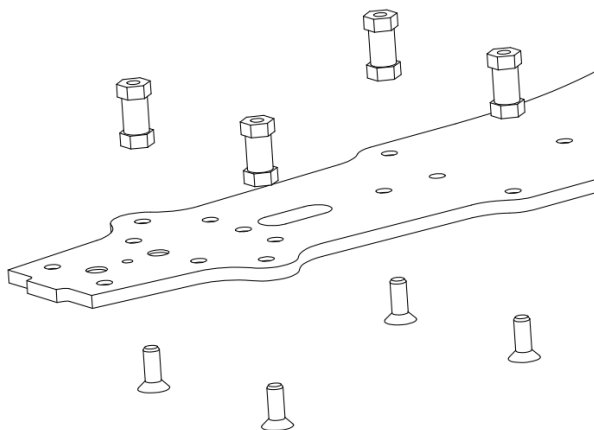
Insert the group into the MISTRAL 2-0 M20-9 front arm

Fix the sphere holder with the provided Oring

Make 2 sets mirror like

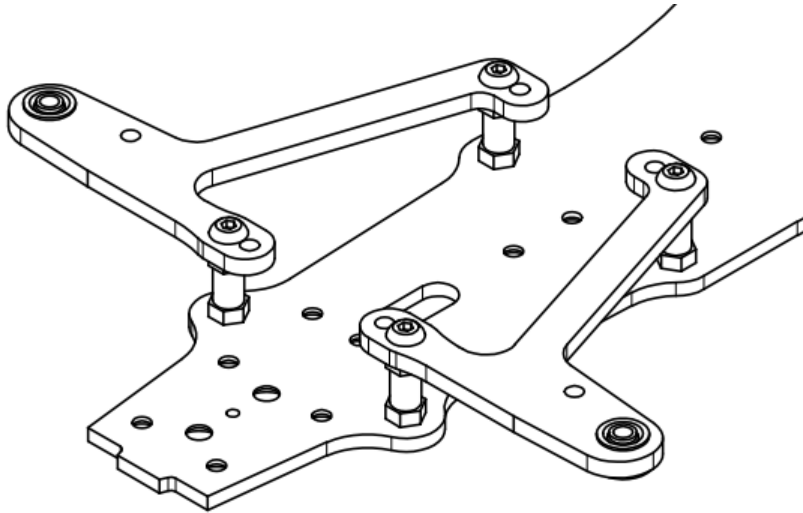
Note:

Be sure that the sphere holder fit easily, you might have to enlarge the 8mm hole with some sandpaper.

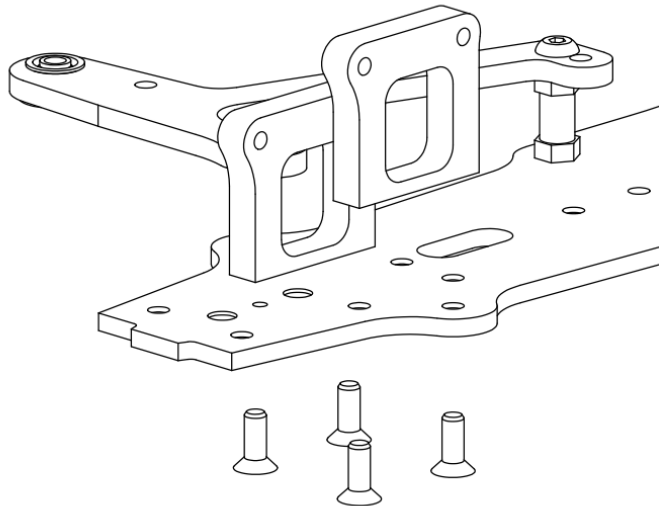


Assembly 4 FX0052 – 12mm alu post, using 4 x HW007 M3x8 countersunk screw

FENIX MISTRAL 2-0



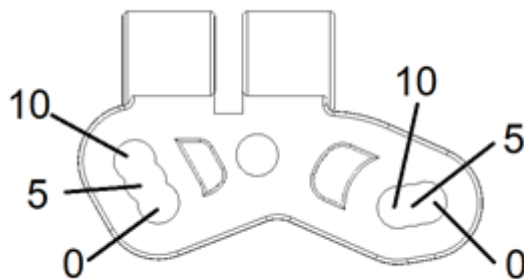
Install the front arm on the 12mm posts, using 4HW003 M3x8 button screw.



Install the M20-16 suspension holder, using 4 x HW007 M3x8 countersunk screw.

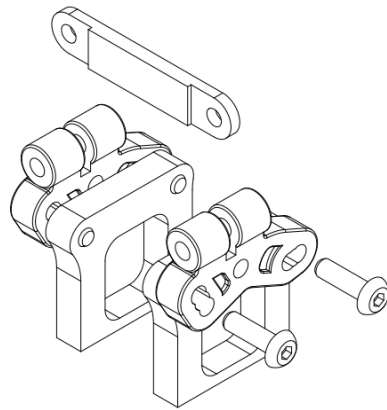
Arm removed for sake of clarity.

Note the position of M20-16 – the knob should face forward.



Active caster settings. 5 Degrees are default setting.

FENIX MISTRAL 2-0

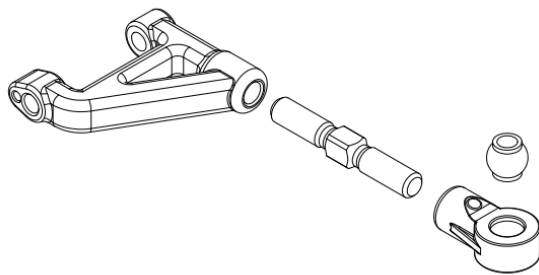


Secure the G56-030 upper arm mount to the M20-16 using 2 HW029 M3x12mm Hex button screw

Slide the M20-13 brace in position.

Note:

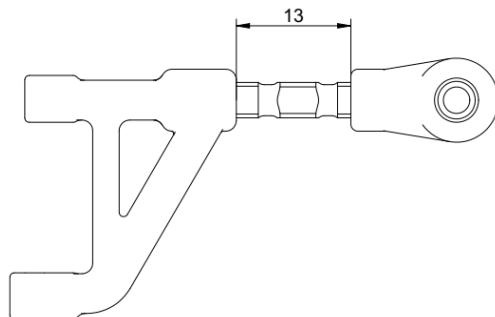
Be sure that the brace fit easily, you might have to enlarge the gap with some sandpaper.



G56-031 arm –
G56-033 eyelet-
TR 28-M4 turnbuckle
G56-037 sphere

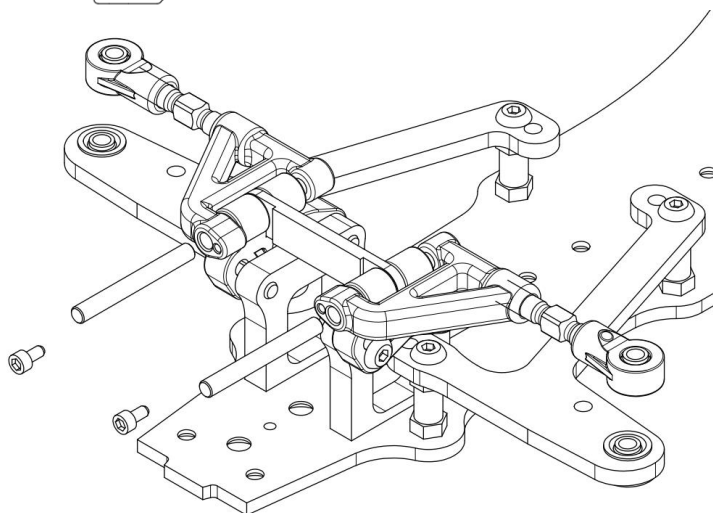
Make 2 sets

Note: insert the sphere into the eyelet using the dimple as reference



Set the distance at 13mm (Ride)

18mm (Volante)

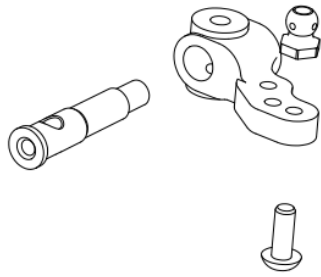


Insert the G56-034 hinge pins and secure them with the HW031 M2x4 screw

FENIX MISTRAL 2-0

Steering hub

Make 2 sets mirror like

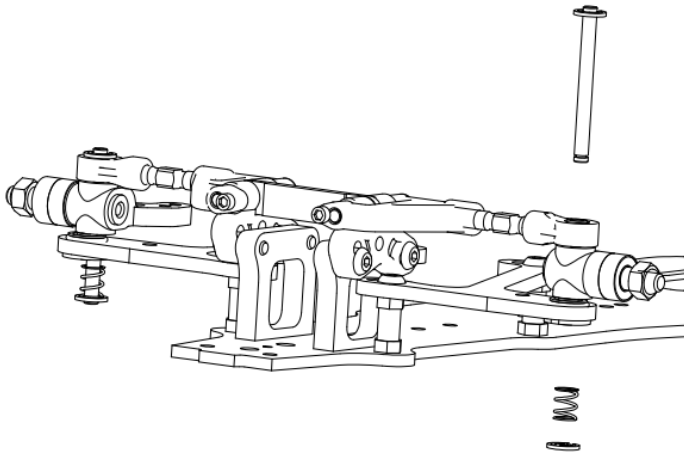


Insert the seeger into the kingpin

Slide the kingpin into the eyelet and the steering hub

Insert the front spring into the kingpin

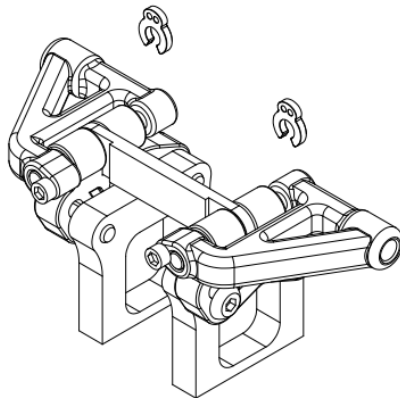
Secure it with a seeger.



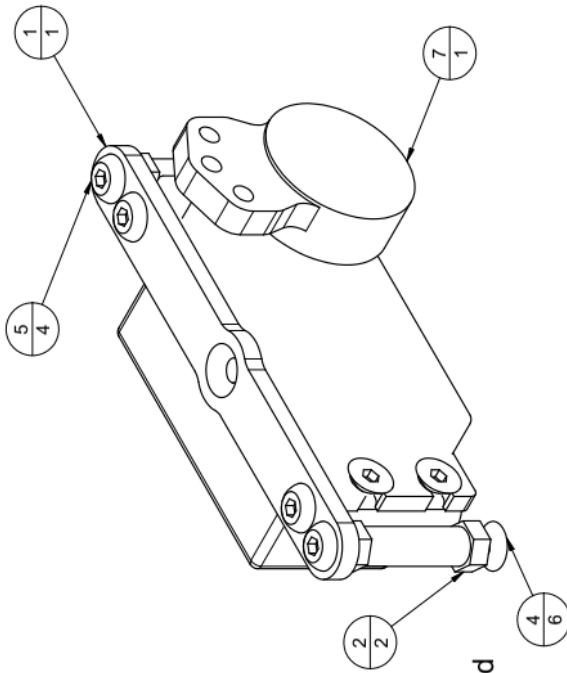
There are 4 caster clips, 2 by 1 mm and 2 by 2mm.

Those are be used to adjust the static caster.

Setup of them is symmetric.



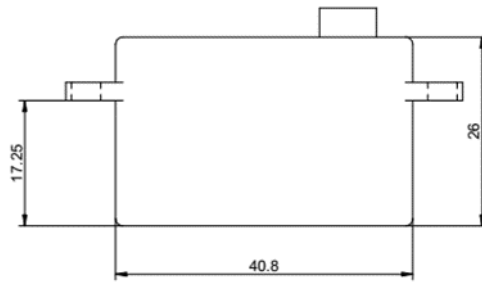
Bag B



Numero oggetto	Numero documento	Titolo	Quantità
1	M20-10	Porta servo laydown	1
2	FX0053	20mm Alu post	2
4	Hw0007	Screw - M3x8 - Hex Socket Countersunk	6
5	Hw0008	Screw - M3x6 - Hex Socket Button	4
6	servo	servo	1
7	Servo Saver	servo saver	1
8	FX0022	Mistral Servo Mount	2

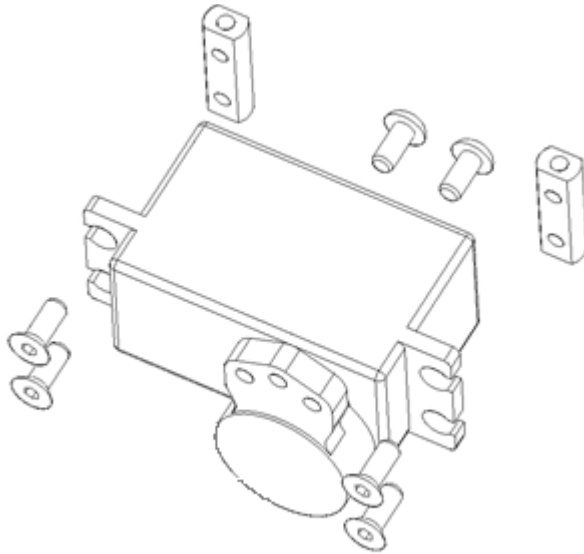
NOTE: Servo and servo saver are not included

FENIX MISTRAL 2-0

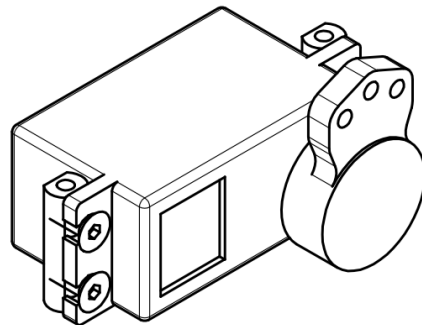


Servo and servo saver are not included, Mistral 2-0 need a low profile servo.

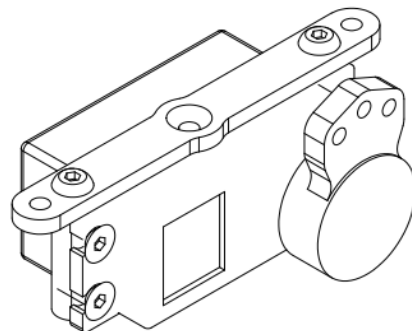
Note the dimension of the servo suggested



Use the 2 x HW003 M3x8mm button to secure the FX-FU48 to the servo saver. Use the 4 x HW008 M3x8 countersunk screw to fix the FX022 servo mount



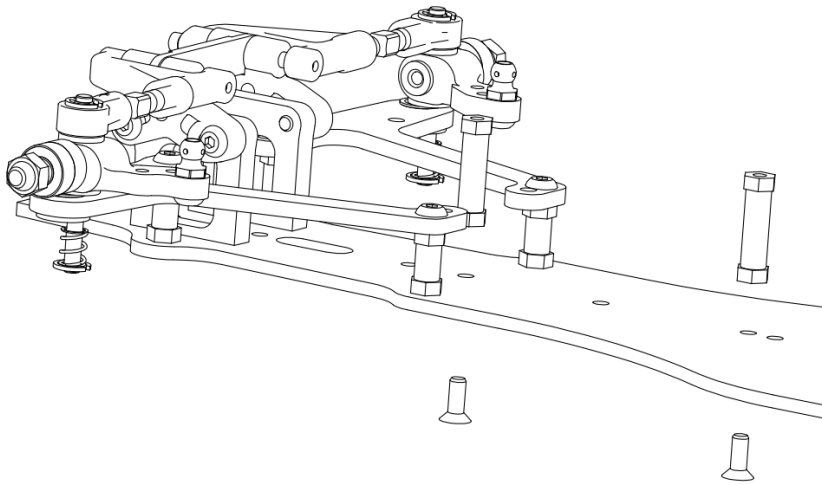
Assembled group. Servo saver should be vertical when servo is neutral.



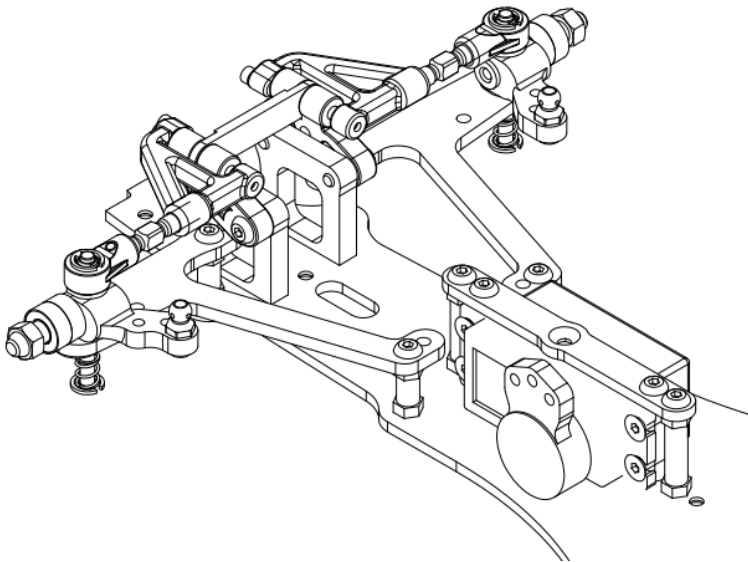
Using 2 x HW008 M3x6 Button, fix the servo group to the M20-10 servo holder

FENIX MISTRAL 2-0

Use 2 x HW007 M3x8 countersunk screw to fix the FX0053 20mm post



Install the servo group to the s HW008 M3x6 Button



IMPORTANT:
servo is supposed to be less than 20mm thick. It's important that the servo doesn't touch the chassis or the chassis will be bent.

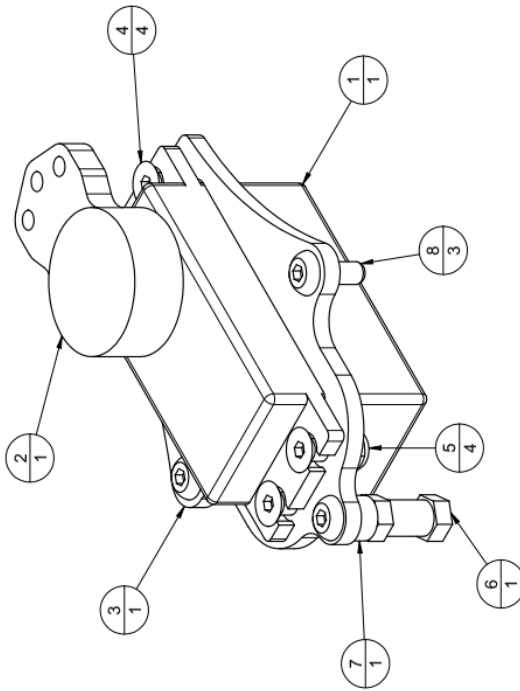
There are 2 FX0079 0.5mm shims provided to raise the servo if needed.

Bag B-1

Optional vertical servo

This option will be included free in the first batch of Mistral M2-0

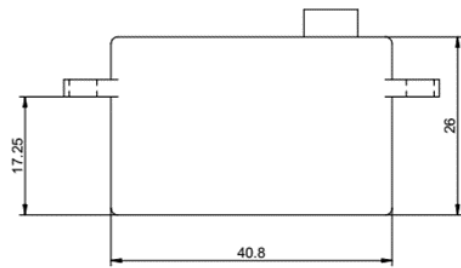
Vertical servo will provide a more direct feeling and allow a bit more roll to the chassis.



Numero oggetto	Numero documento	Titolo	Quantità
1	servo	servo	1
2	Servo Saver	servo saver	1
3	M20-12	Portia servo verticale	1
4	HW004	Screw - M3*10 - Hex Socket Countersink	4
5	HW002	M3 Self Locking nut - standard	4
6	FX0052	12mm Alu post	1
7	FX0074	Alu Shim 3mm	1
8	HW-004	Screw - M3*10 - Hex Socket Button	3

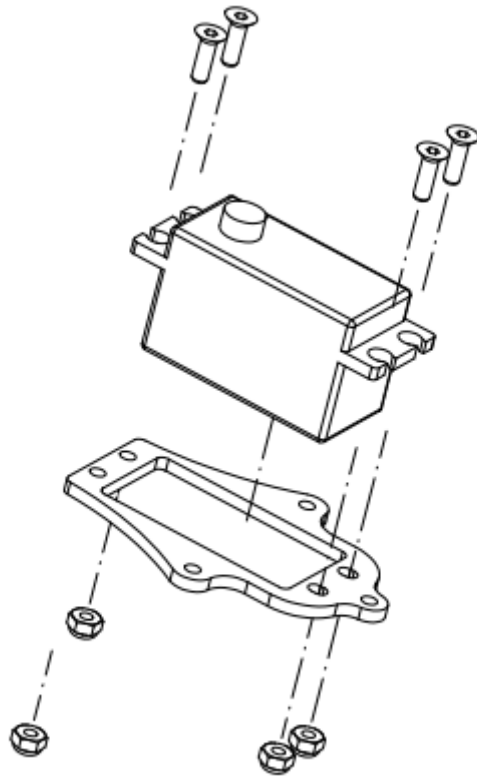
NOTE: servo and servo saver are not included

FENIX MISTRAL 2-0



Servo and servo saver are not included, Mistral 2-0 need a low profile servo.

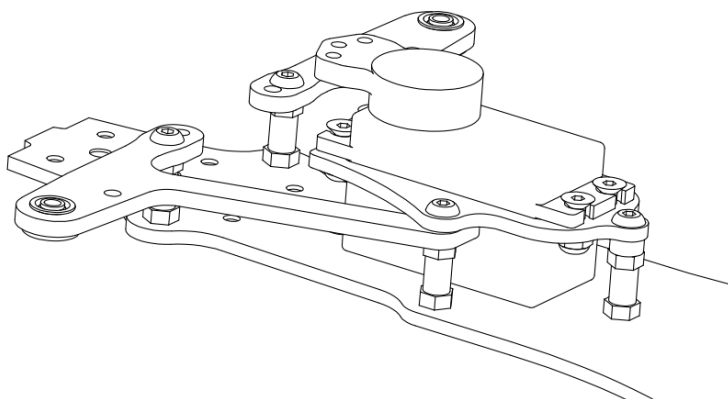
Note the dimension of the servo suggested



Insert the servo into the M20-12 servo holder.

Secure it using the 4 HW004 M3x10 countersunk screws and the HW004 nylock nuts.

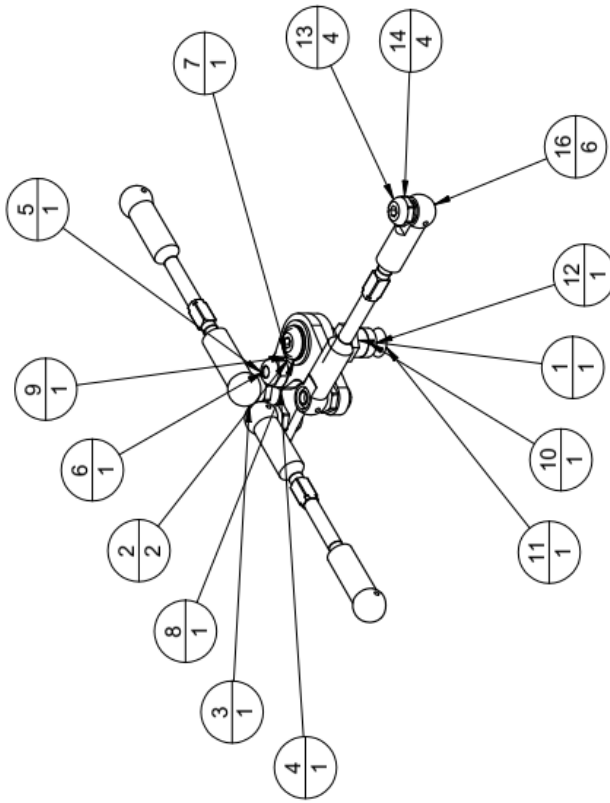
Note: start tight the front screws. The conic area of the screw will provide a correct servo center.



Use 1 x HW007 M3x8 countersunk screw to fix the FX0052-12mm post to the chassis. Then secure the servo mount using 2 HW004 M3x10 button screw.

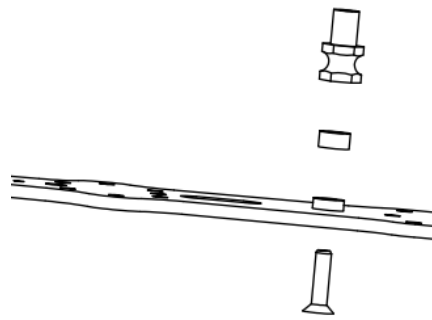
Insert the provided 15mm post in the rear hole

Bag C



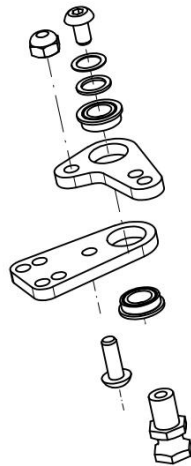
Numero oggetto	Numero documento	Titolo	Quantità
1	FX0049	Steering post	1
2	FX0032	5x8x2.5 - Flanged ball Bearing	2
3	M20-14	Upper plate steering	1
4	M20-15	Steering link	1
5	HW002	M3 Self Locking nut - standard	1
6	HW-004	Screw - M3*10 - Hex Socket Button	1
7	HW008	Screw - M3*6 - Hex Socket Button	1
8	HW010	0.5mm shims	1
9	HW009	0.2mm shims	1
10	FX0074	Alu Shim 3mm	1
11	HW026	Screw - M3 x 12 - Hex Socket Countersunk	1
12	FX02009	Alu Shim 2mm	1
13	HW003	Screw - M3*8 - Hex Socket Button	4
14	FX-FU48	uniball 6,6	4
15*	FX0026-T	Mistral front turnbuckle Steering - Titanium	3
16	FX0037	Ball Joint	6

FENIX MISTRAL 2-0



Using the HW026 M3x12 countersunk screw, fix the steering post to the chassis, installing the provided shims.

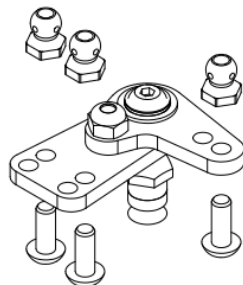
Note: some parts are removed for sake of clarity



Assembly the steering linkage as shown. Take some care when insert the bearings in the carbon fibre.

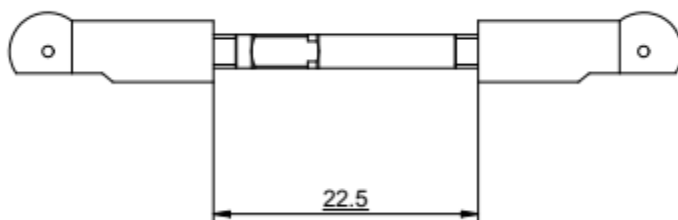
Note: you might have to enlarge the 8mm hole with some sandpaper. Do not exceed.

Note: Take some time when aligning the carbon plates.



If necessary, use the provided shims to remove the vertical play to the minimum.

Install the FX-FU48 using 3 x HW003 M3x8 button screw.



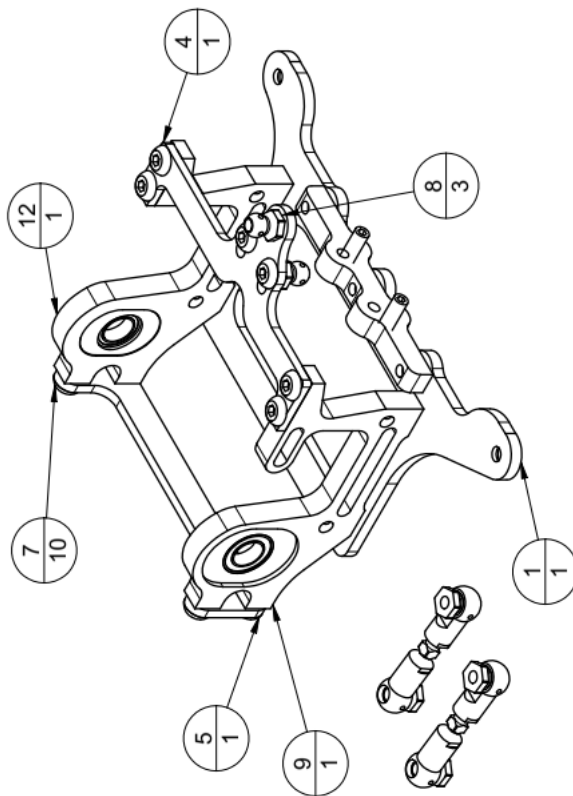
Make tie-rod with 22.5mm and 1 with 24mm

Connect the 24 mm one to servo and the other 2 to the steering hubs

Ball male stud should be used on the servo horn.

Bag D

Motor Pod



Numero oggetto	Numero documento	Titolo	Quantità
1	M20-3	motor pod	1
4	M20-5	Shock holder	1
5	M20-4	motor brace	1
6*	HW012	Screw - M3*6 - Hex Socket Countersunk	8
7	HW008	Screw - M3*6 - Hex Socket Button	10
8	FX-FU48	uniball 6,6	3
9	MH-PAN A	Motor holder - motor side	1
10*	FX0048	Ride height adjuster - (for FX050 motor holder)	2
11*	FX14-38	Ball Bearing Flanged 3/8"x1/4"	2
12	MH - Left	Motor holder - left side	1
13*	V-link2	V-link 2 Motor pod	1
14*	HW013	Grab screw M3*8	4
15*	FX0037	Ball Joint - SHORT	4
16*	TR-15	Titanium Tie Rod 15mm	2
17*	FX-FU48	uniball 6,6	4

NOTE:

Before start to assembly the rear end of Mistral 2-0, we strongly suggest you, to visit the Fenix Racing Youtube channel and look the "V-link suspension setup" video, here is the link.

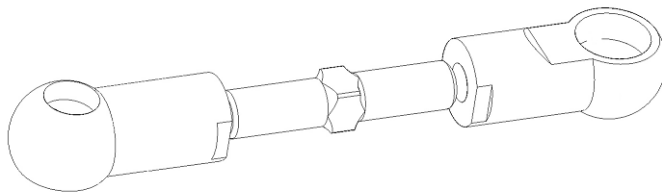
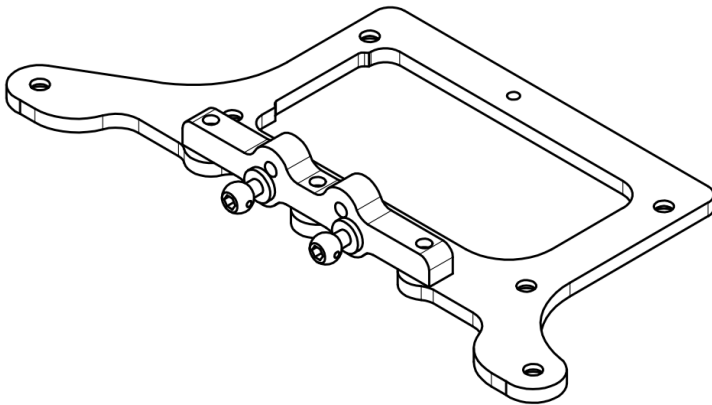
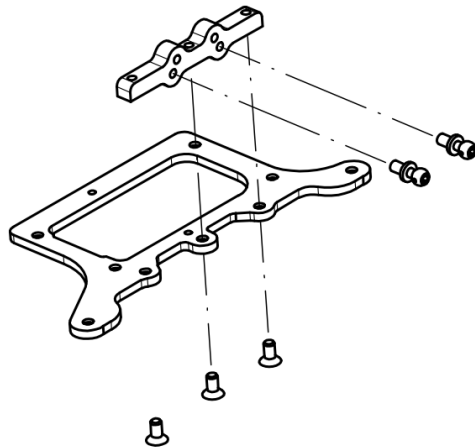
<https://www.youtube.com/watch?v=SEwNQcn12A0>

There, you'll also found some video useful when dealing with the Fenix Gear Diff.

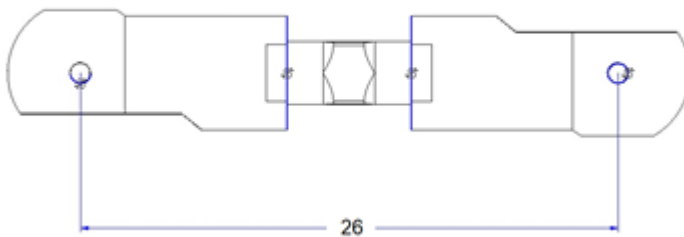
FENIX MISTRAL 2-0

Using 3 x HW012 M3x6 countersunk screw fix the V-link F2 to the motor pod.

Insert 2 x male ball stub into the V-link F2.

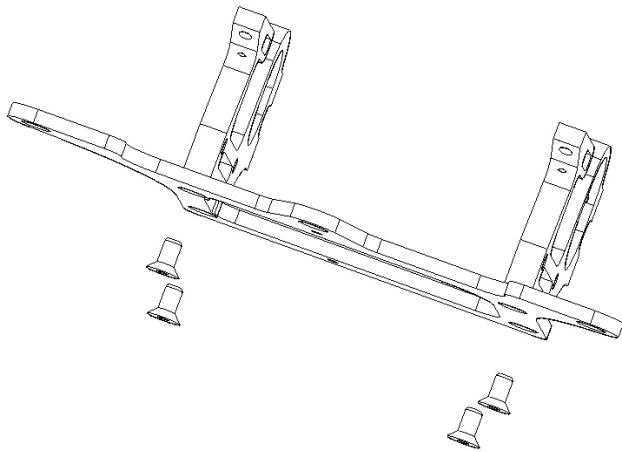


Build 2 set of link using 2 x TR15 and 4 FX0037 - short



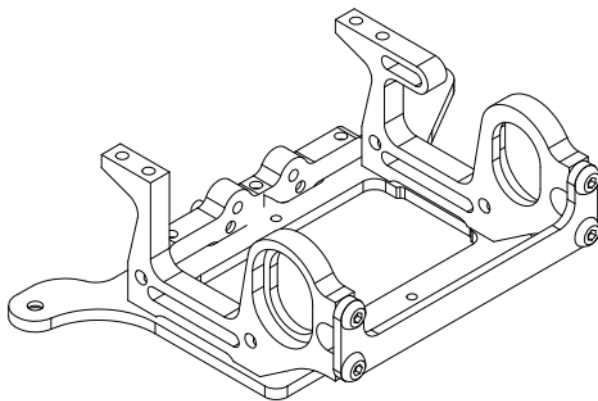
Keep this dimensions.
Fix the link over the V-link F2

FENIX MISTRAL 2-0



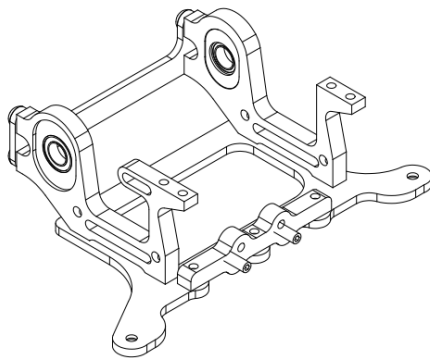
Using 4 x HW012 countersunk screws, fix the motor holder to the motor pod.

Tight the screws evenly using an "X" pattern

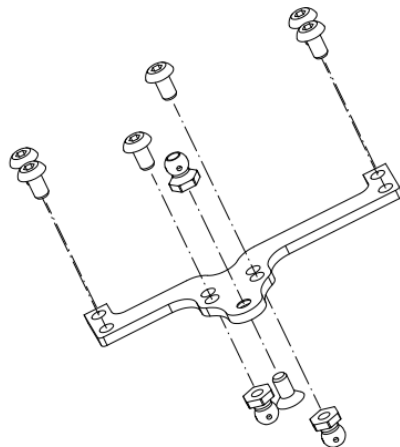


Fix the M20-4 brace to the group using 4 x HW008 M3x6 button screw.

Tight the screws evenly using an "X" pattern



Insert the ride height adjuster and the flanged bearings



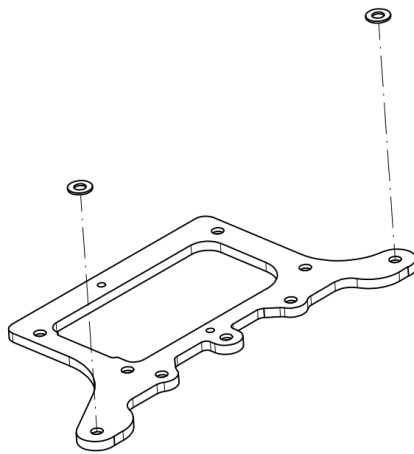
Use the provided HW006 M3x8 button screw to fix the M20-5 shock holder to the Motor holder

Note: Wait to install the shock holder to the motor group.

FENIX MISTRAL 2-0

Note: for the Alu version.

Insert 2 x 0.5mm shims under the link sphere

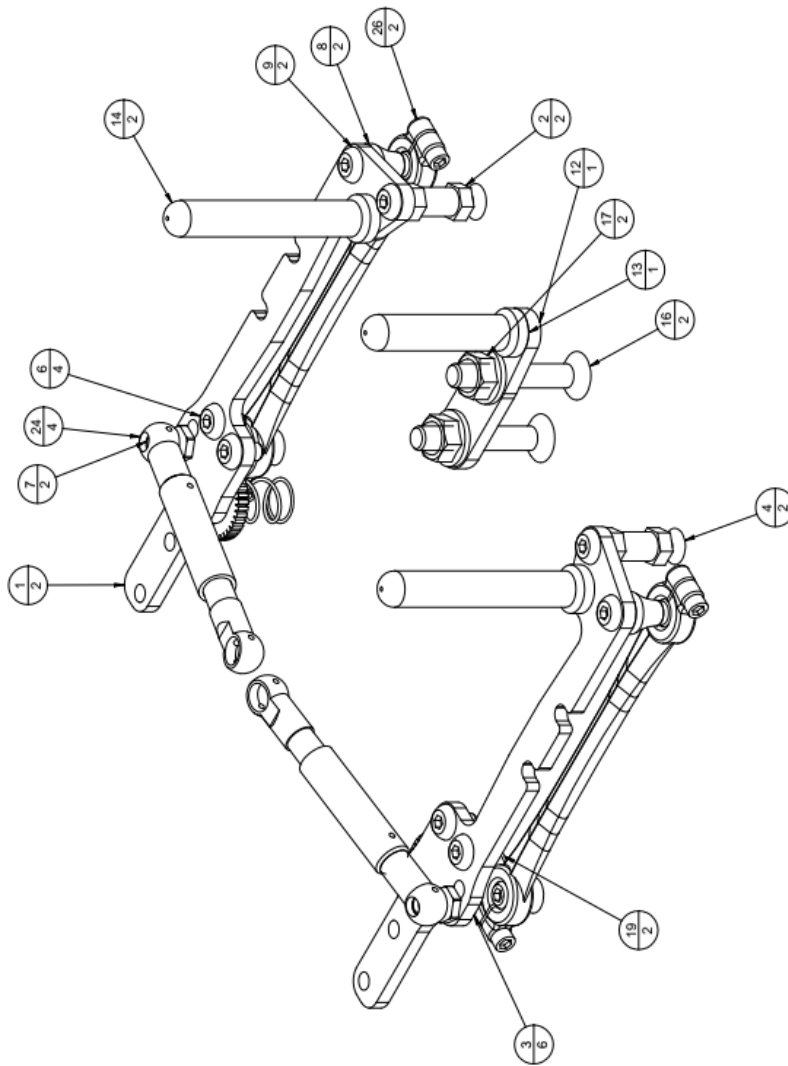


How about a cup of coffee now? You deserve it!



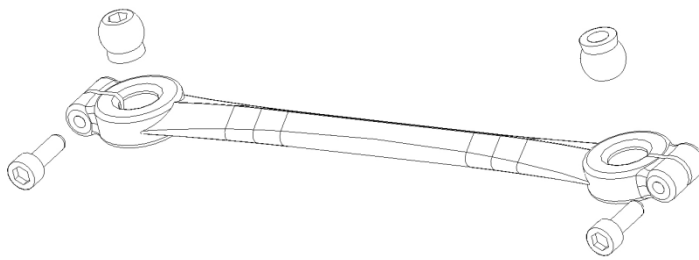
Bag E

Rear V-link and common parts



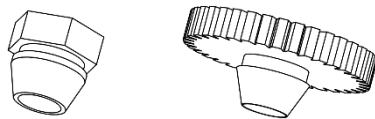
Numero oggetto	Numero documento	Titolo	Quantità
1	M05-7 WTC	Side wing - link version	2
2	F00052	12mm Alu post	2
3	Hw003	Screw - M3x8 - Hex Socket Boltfin	6
4	Hw007	Screw - M3x8 - Hex Socket Countersunk	2
6	Hw008	Screw - M3x6 - Hex Socket Boltfin	4
7	FX-FU48	untitoll 6,6	2
8	G56042	Colonna link pancar	2
9	Hw029	Screw - M3x12 - Hex Socket Boltfin	2
12	BH1	body holder	1
13	Hw015	Body post - 30mm	1
14	Hw016xx	Body post 40mm	2
15	Hw004	Screw - M3x10 - Hex Socket Countersunk	1
16	Hw017	Screw - M4x25 - Hex Socket Countersunk	2
17	Hw000X	Self locking nut M4 - Flanged	2
18	F00015	Side Link kit - spring holder	2
19	F00033	Side spring	2
20	Hw013	Grab screw M3x8	2
21	F00042-A	Damper body	2
22	F00042-B	Damper Piston	2
23	Hw0177	Grab screw M3x10	2
24	F00037	Ball Joint - SQRRT	4
25	F00022	Suspension Sphere - link	4
26	F00015	Side Links kit - link	2
27	Hw014	Screw - M2x6 - Hexagon Socket Cylinder	4
28	Hw012	Screw - M3x6 - Hexagon Socket Countersunk	2

FENIX MISTRAL 2-0



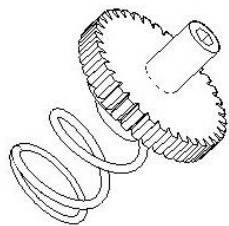
Prepare 2 sets – note the position of the spheres.

Use 2 x HW0014 M2x 6 screws and 2 x FX002 spheres each



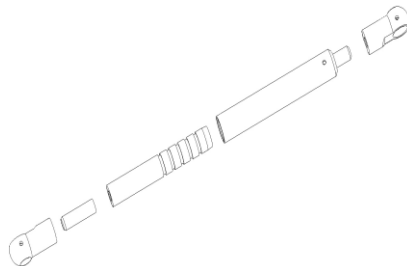
Note: spring holder might have 2 different shape.

Hex one or round one.

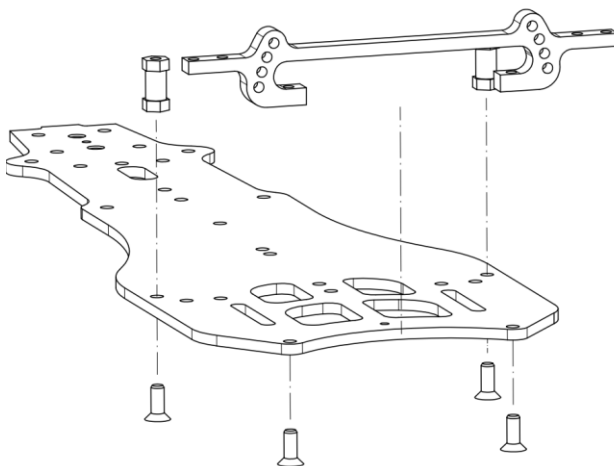


**Grub screw
M3 x 8**

Prepare 2 side spring group set as shown

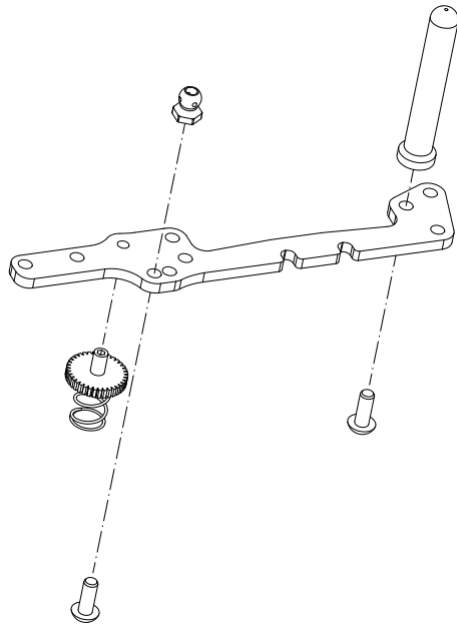


Assembly the 2 side dampers as shown



Take 2 x FX0052 12mm post, the V-link F1 and 4 x HW007 M3x8 countersunk screw and assembly as shown

FENIX MISTRAL 2-0



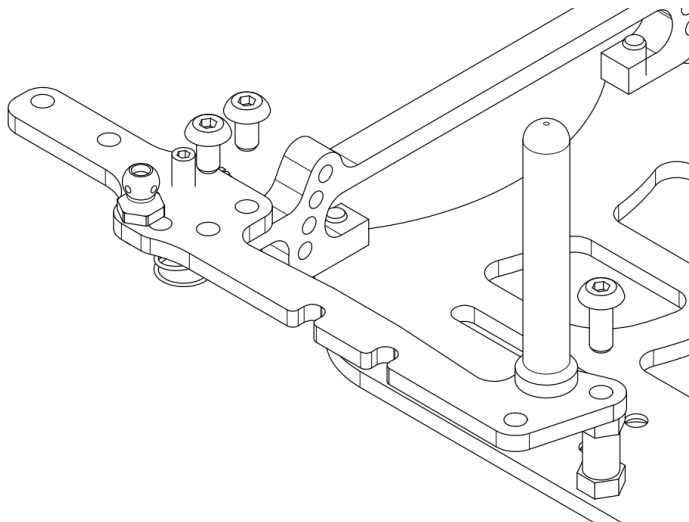
Prepare 2 mirror like side element, using M20-7
Fix the FU-FX48 and the body post using 2 HW003 M3x8 button screw.

Insert the side spring group into the carbon fibre

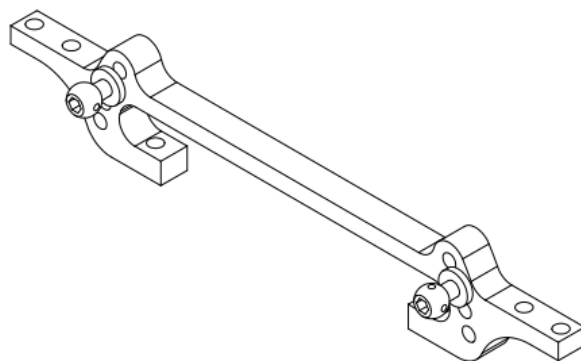
Note:

Use special attention when "thread" the grub screw in the carbon fibre, lubricate the grub screw often during the operation and insert it slowly.

You might want to thread the carbon fibre using an M3 tap.



Install the side group as shown using 2 x HW003 M3x6 button screws and 1 HW003 M3x8 button screw.



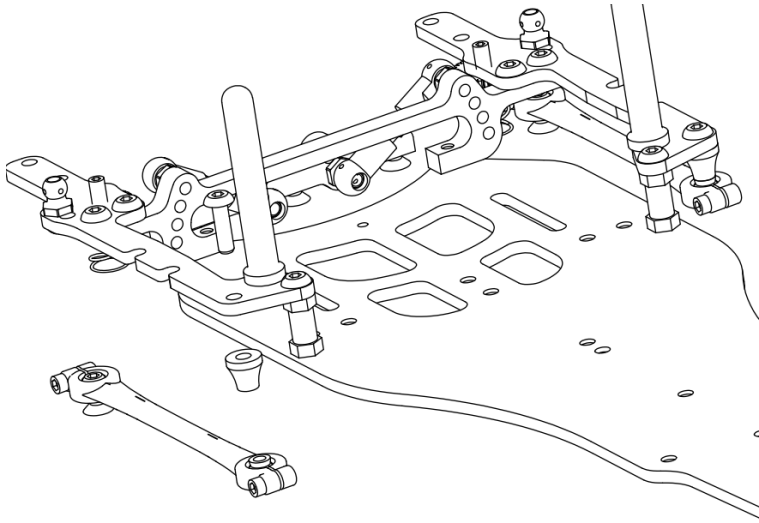
From Bag C, insert 2 x male stud.

Fix the short link between V-link F1 and V-link F2

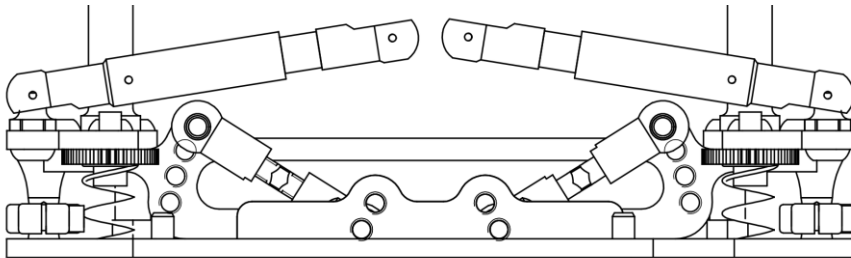
Note

Please, check in the tech section about the V-link settings.

FENIX MISTRAL 2-0



Install the side link you've prepared before using 1 HW029 M3x12 button screw. Insert the G56042 spacer between the carbon side wing and the link. Use 2 x 2mm allen to tight the sphere link.

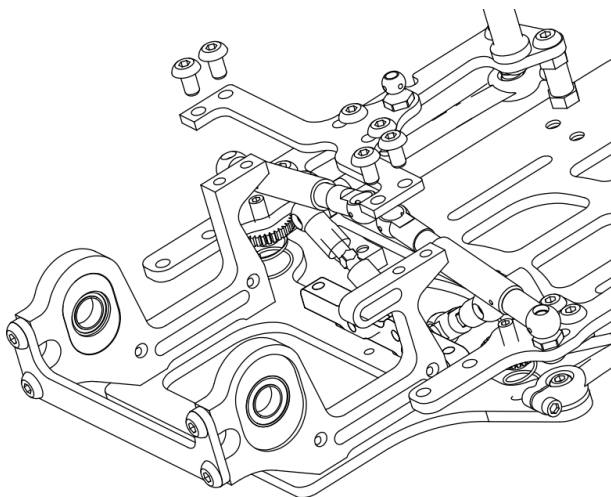


Now, lay the car on a flat setup board and make the final fine tuning of the links length. Chassis and motor pod must lay flat on the setup board.

Take the proper time for this setting.

Check our channel on Youtube for some explicative video.

<https://www.youtube.com/channel/UCDZqN09hr2Eal7qHCMjUciQ>

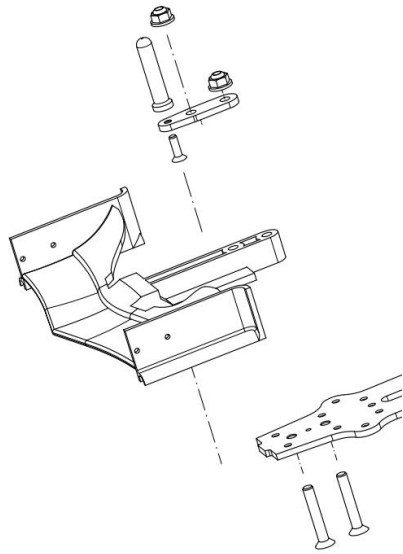


Now you can couple the motor pod to the chassis group. Use the M20-5 shock holder, using 4 by HW008 3x6 button screw.

Side links can be installed using 2 x HW012 M3x6.

Install now the side dampers

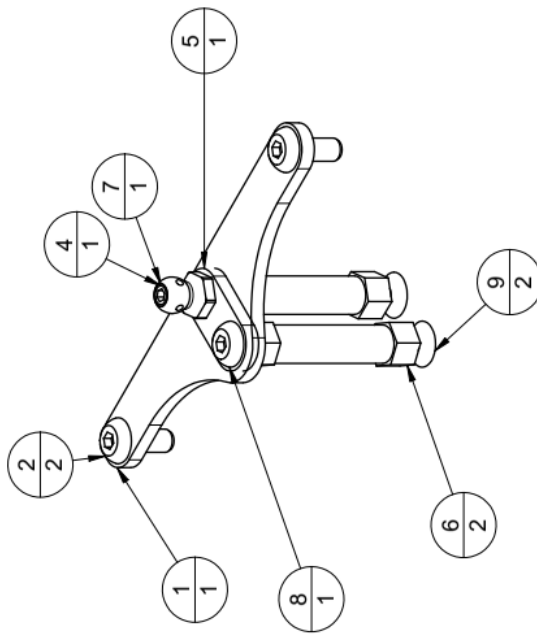
FENIX MISTRAL 2-0



To assembly the front wing, first secure the front body post to the body holder using 1 HW004 M3x10 screw, then using 2 HW017 M4x25 secure the wing to the front end of the chassis.

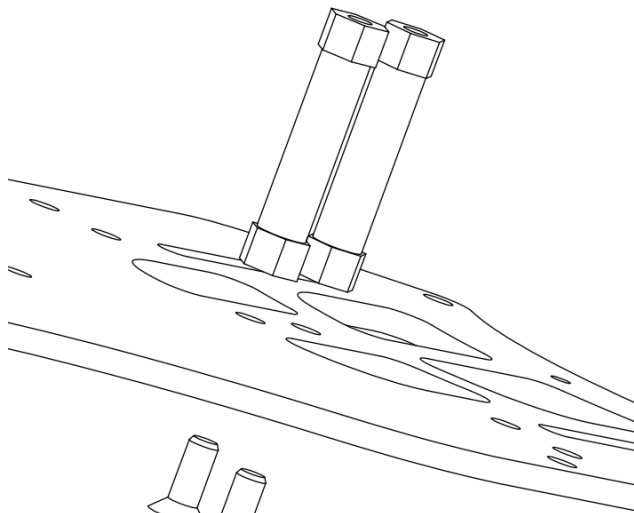
Bag F

Central shock holder



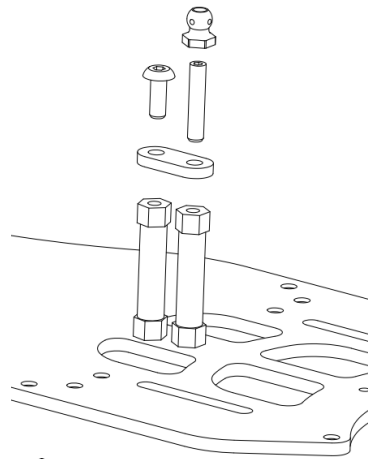
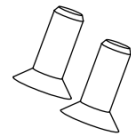
Numero oggetto	Numero documento	Titolo	Quantità
1	MZ0-2	Shock holder	1
2	HW003	Screw - M3*8 - Hex Socket Button	2
3	HW012	Screw - M3*6 - Hex Socket Countersunk	1
4	FX-FU48	uniball 6,6	1
5	MZ0-18	Mini Shock holder	1
6	FX0054	Post 26mm	2
7	HW034	Grub screw M3*15	1
8	HW003	Screw - M3*8 - Hex Socket Button	1
9	HW007	Screw - M3*8 - Hex Socket Countersunk	2

FENIX MISTRAL 2-0

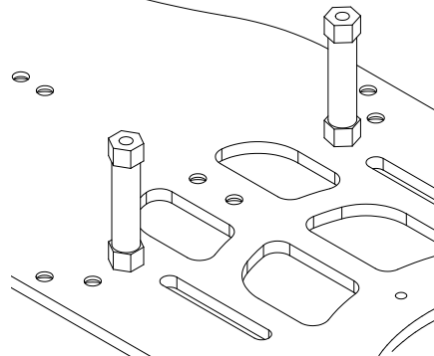


Cross battery

Using 2 x HW007
M3x8
countersunk
screw, fix 2
FX0054-26mm
posts to the
chassis

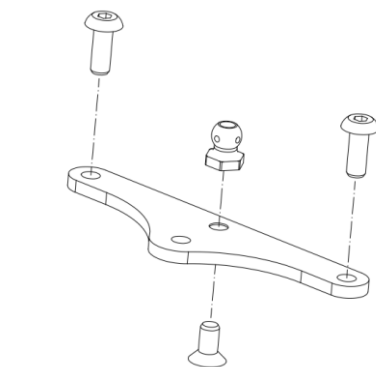


Fix the M20-18
mini shock holder
using 1 x HW003
M3x8 button
screw, 1 x HW034
M3x15 grub screw
and one FUFX48
as show

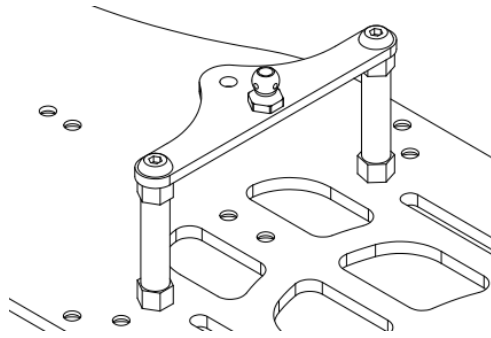


Inline battery

Using 2 x HW007
M3x8
countersunk
screw, fix 2
FX0054-26mm
posts to the
chassis

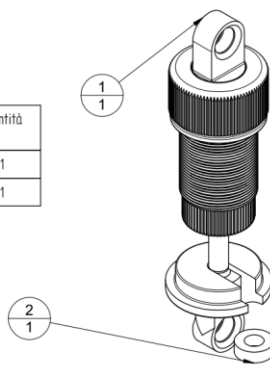


Fix the FUFX-48 to
the M20-2 inline
shock holder using
1 x HW012 M3x6
countersunk
screw.
Use 2 x HW003
M3 x 8 button
screw to fix the
shock holder to
the 26mm posts

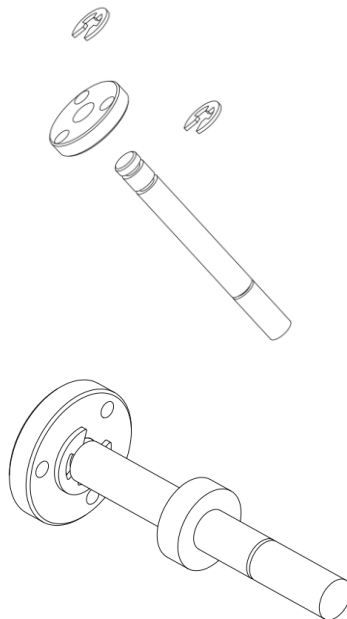


Inline shock holder

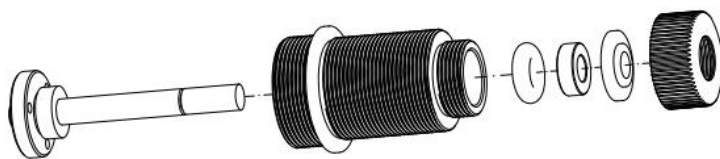
Numero oggetto	Numero documento	Titolo	Quantità
1	BM-010	Black Mistral shock kit	1
2	FX02009	Alu Shim 2mm	1



Shock Bag

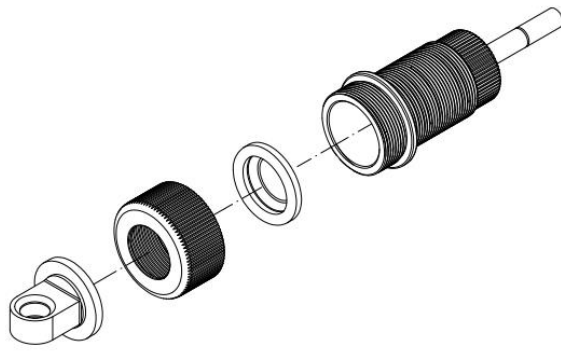


Insert a seeger into the first seat on the shock shaft. Then your preferred piston (4 holes cylindrical suggested) and then insert a second seeger into the proper seat. To adjust the drop, insert the provided 2mm shim on the shock shaft

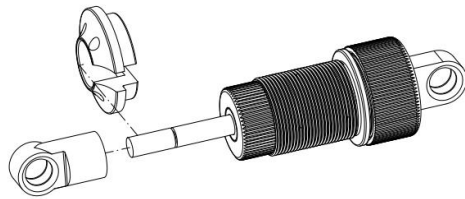


Insert the shaft into the shock housing. Lubricate the oring and the 2 guides and insert them in the housing. Tight the cover.

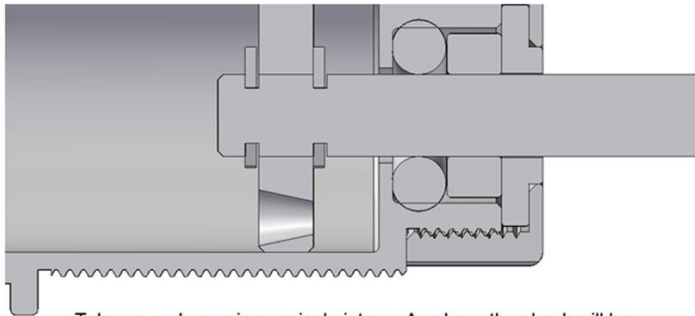
FENIX MISTRAL 2-0



Fill the shock with your favourite oil, bleed it as usual and close it tight.



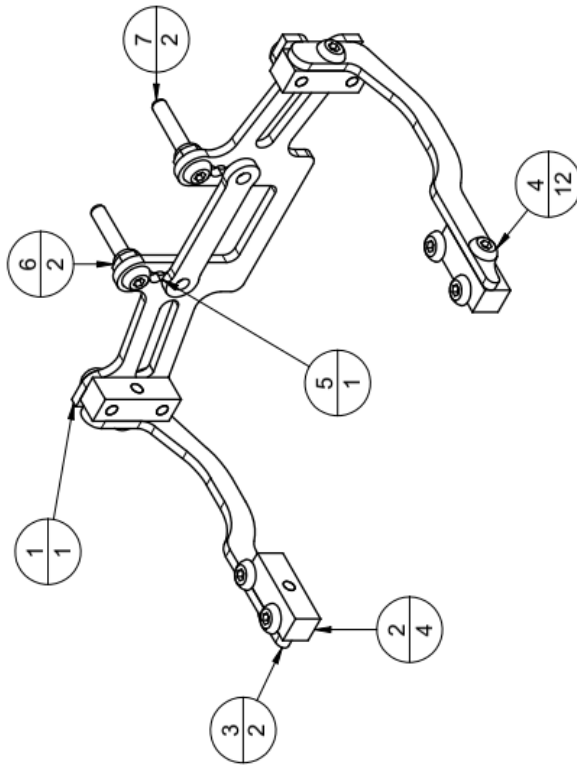
Screw the cup holder on the shock shaft, insert your favourite spring and insert the spring holder as shown



Take care when using conical pistons. As show, the shock will be harder in compression and softer in extension

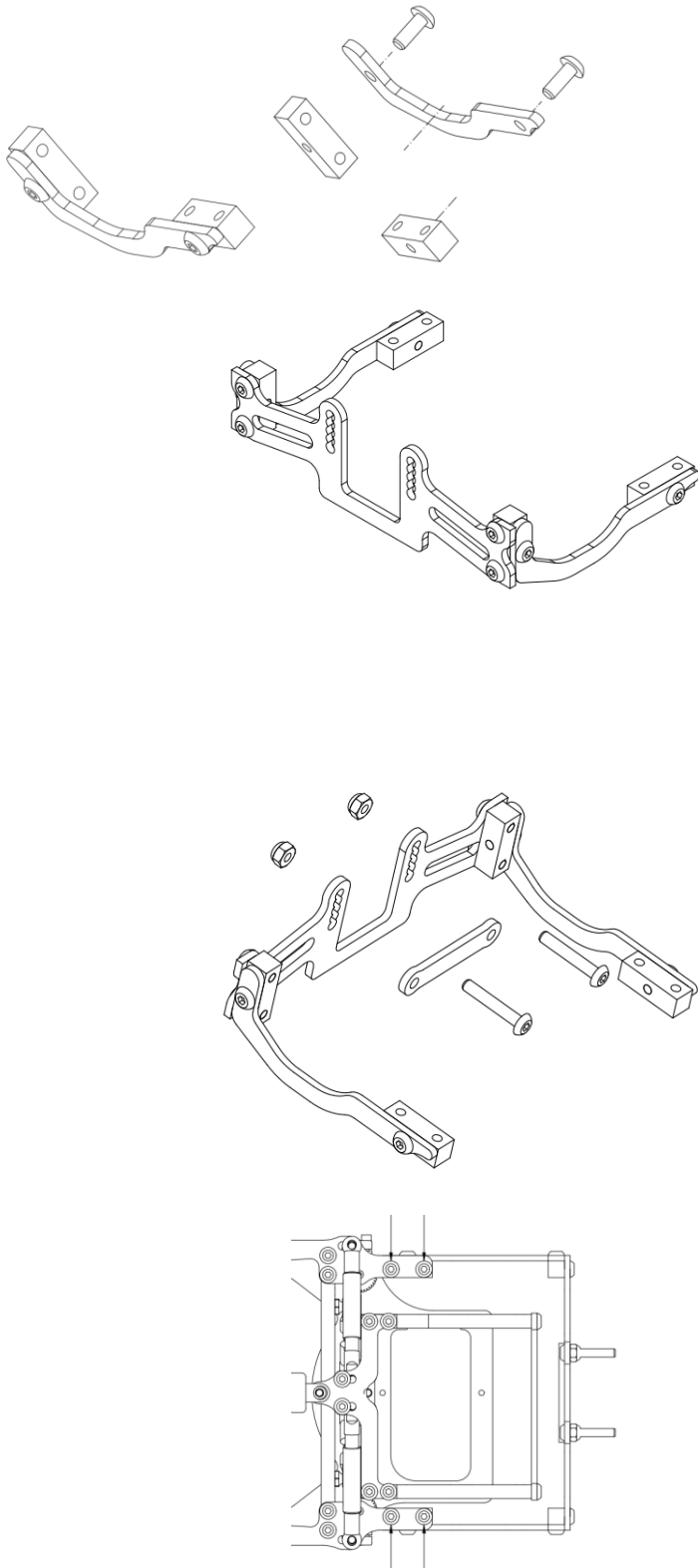
Bag G

Wing to chassis



Numero oggetto	Numero documento	Titolo	Quantità
1	M20-6	attacco ala WTC	1
2	M20-17	giunto WTLpar	4
3	M20-8	Barretta laterale WTC	2
4	HW003	Screw - M3*8 - Hex Socket Button	12
5	M20-11	rinforzo ala WTC	1
6	HW002	M3 Self Locking nut - standard	2
7	HW016	Screw - M3*20 - Hex Socket Button	2

FENIX MISTRAL 2-0



Assembly 2 mirror like shoulders using M20-8 and M20-17 joint.
Use 2 x HW003 M3x8 button screw.
Do not tight them fully now.

Use 4 x HW003 M3x8 button screw and assembly the M20-6 wing holder to the shoulders
Do not tight them fully now.

Note: The peculiar shape of M20-8 allow most rear wing to be assembled also "inside".
With some rear wing this is not possible

To assembly the rear wing use the HW016 M3x20 screws and the M3 Nylock nuts provided.
We've add also an M20-11 small brace. This can provide extra safety to the M20-6.

You can install the "wing to chassis" system to the Chassis, using 4 x HW003 M3x8. Now you can tight fully all the screw of the WTC

Note:
Sometime is going to be more practical remove the WTC when you set the pinion/spur gear

For the differential assembly, please refer to the specific manual.

Also, check our Youtube channel for differential assembly tips.

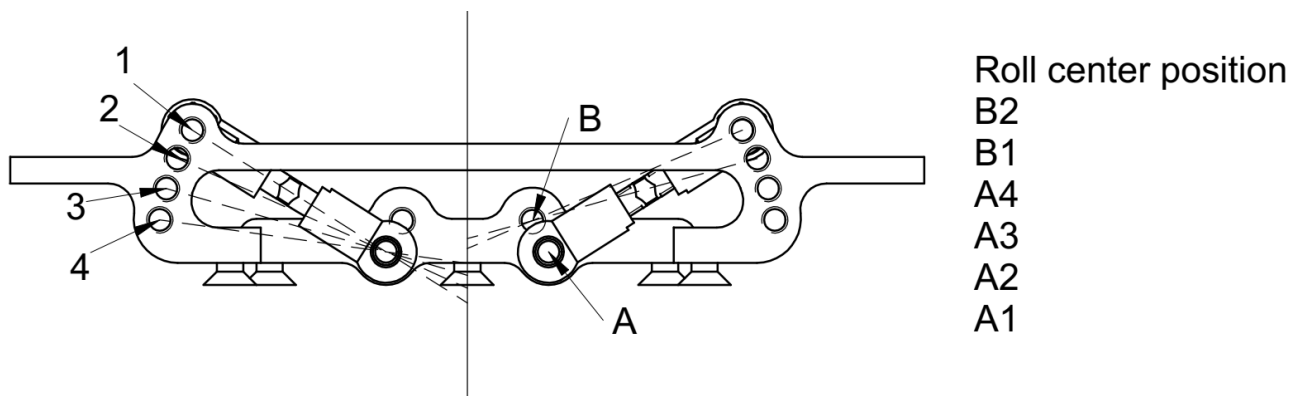
Tech area

MISTRAL 2-0 represent a major breakthrough in the F1 class. Nothing comes close to this F1 model.

We've had several drivers developing the car, from Club racers to ETS A-main finalist, we'd like to thank all of them for the time and dedication they put in this project.

Front End: On the front end you can find an easy system to change the front track, according the tires you're using, and very user friendly system to alter camber, caster and dynamic caster.

Rear End: V-link we spent quite a lot of time developing this rear end, using different brand of tires, driving on ETS carpet and asphalt.



V-Link suspension has the unique ability to alter the roll centre position.

You can alter significantly the amount of rear grip by changing the roll centre position.

B2 is very much like a common pivot rear suspension.

A1 give the lowest roll centre.

Most of the time, you'll find a very comfortable setting using A2 or A3 position

Of course the 2 connection link must have the same length!!!