



ASSEMBLY MANUAL

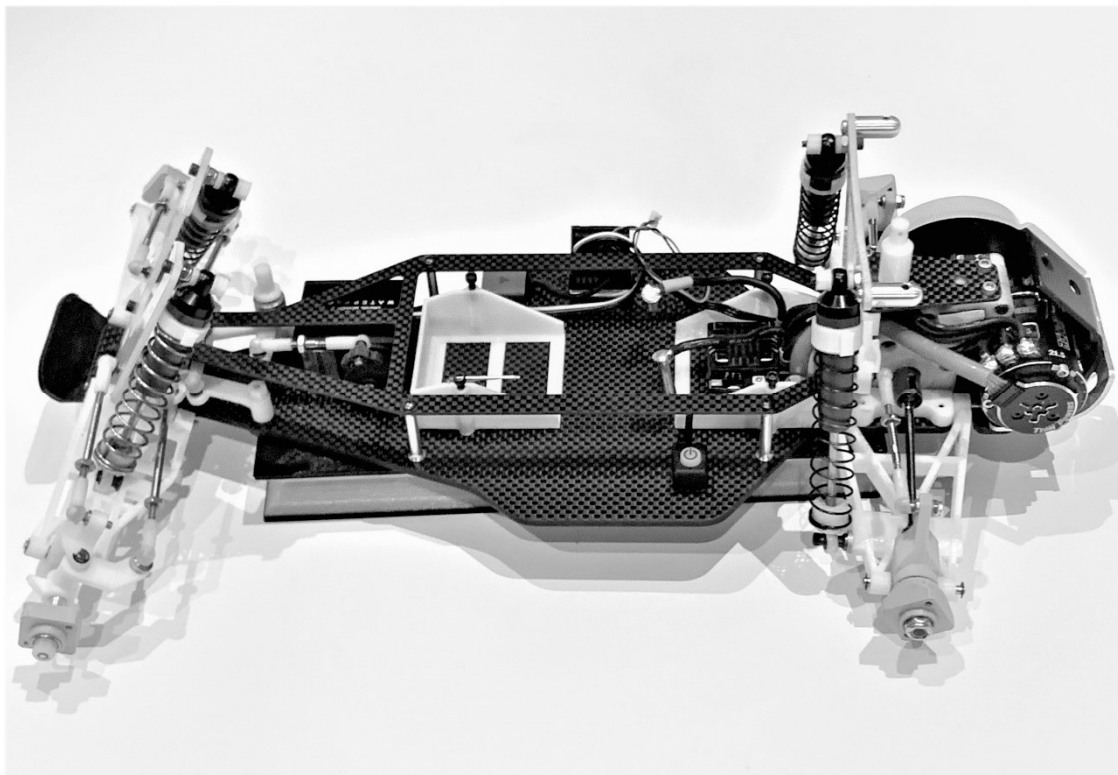
RC10'91 DETROIT IFMAR WORLDS REPLICA CONVERSION KIT



INTRODUCTION

- Firstly; **A MASSIVE THANK YOU FOR YOUR SUPPORT AND PASSION!**
- We would like to thank you for purchasing our GP3D RC10'91 Detroit IFMAR Worlds Replica Conversion Kit. As you have purchased this kit it means you are passionate about the history of our beloved R/C hobby and in particular one of the most iconic R/C cars we have seen → the prototype from Team Associated and Masaaki that took Masami Hirosaka to the 1991 IFMAR 2WD World Championship at the daunting and unforgiving Detroit track in Michigan, USA.
- GP3D and our manufacturing partners have been progressively looking into reproducing some of the additionally required 'original' components, including; turnbuckles, motor plate/guard and alloy stand-offs, wing mounts, axles, hinge pins, ball cups/studs...etc, therefore please keep following our [FB page](#) and [website](#) for those and more future developments...
- Some 3D printed parts, including the suspension arms are printed at ~45-degree angle to maximise layer adhesion area and balance directional strength distributions, resulting in some edges not being 'pretty', but these and any small surface artefacts can be trimmed and sanded as desired to clean up the rough edges. Some items are printed with a brim (one thin layer surrounding the part to aid in bed adhesion during printing). This needs to be cut off with a scalpel and then the remaining edges can be sanding smooth as desired. Refer to the initial 'PRINTED PARTS PREPARATION' step for further details and illustration.
- We hope you love and enjoy building, displaying and driving your RC10'91 Detroit replica, we are always available to help and support with any questions or issues you may have. We would also love to receive pictures of your in-progress and finished models in your chosen style and liveries that we can share online!
- Please contact us if needed: grand.prix.3d@gmail.com OR via [FB Messenger](#)
- Information and spare parts are available in our online shop: www.GrandPrix3D.store

Our replica build...



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STEP 6.1 – TOP DECK 19













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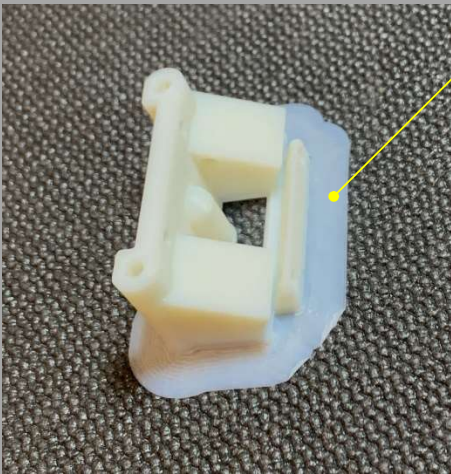


ICONS & SYMBOLS

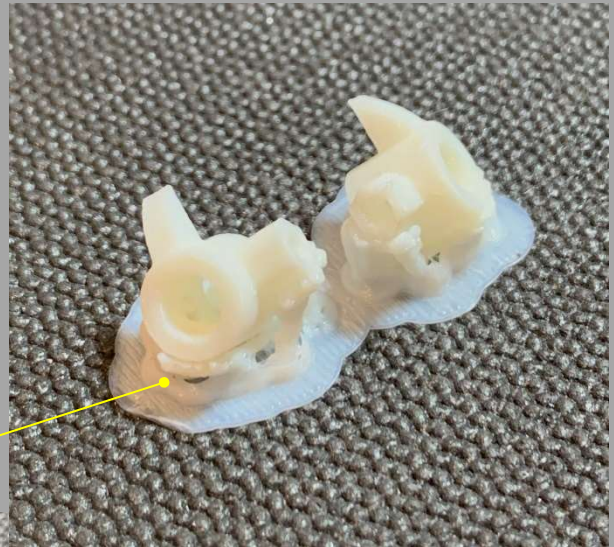
	Dotted line	Dotted line indicates assembly path/routing of bolts into parts
	Arrow	Indicates direction of part for movement to assemble
	Reverse Angle	Inset image showing the reverse/different angle
	Item Not Included	Refers to an item not included in this kit
	Optional Items	Optional items recommended from GP3D or an OEM
L&R	Left & Right	Indicates you need to repeat this step for Left and Right sides.
	Drill	Drill out existing hole with provided 2mm or 1.5mm drill bit
	NO Drill	Do NOT drill holes (as bolt threads in)
	Clean up	Clean up part/edges with scalpel and/or sand paper
	Gentle	Exercise care and love and gently tighten!
	Information	Indicates some extra information or hints or options
	Very Important!	Highlights a very important item to take note
	Check	Check your assembly matches the picture



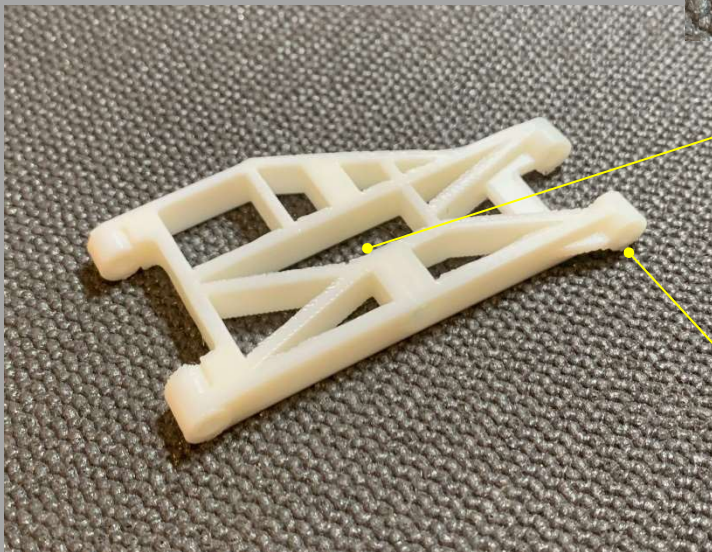
PRINTED PARTS PREPARATION



3D Printing "**Brim**" – slice off with scalpel, clean up edges with sand paper



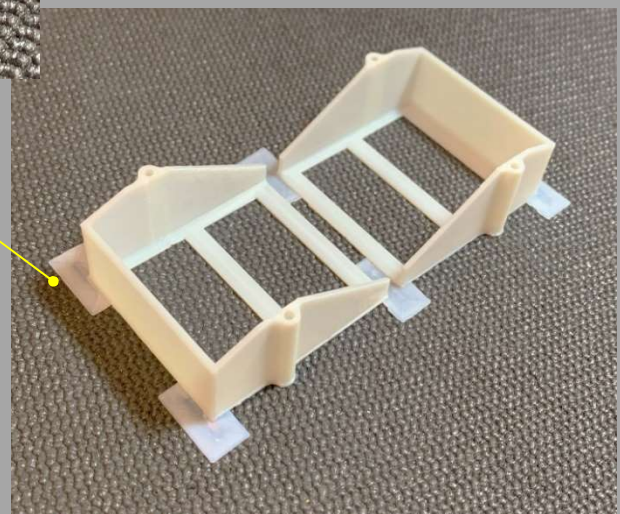
3D Printing "**Supports**" – remove with pliers, clean up with scalpel then sandpaper



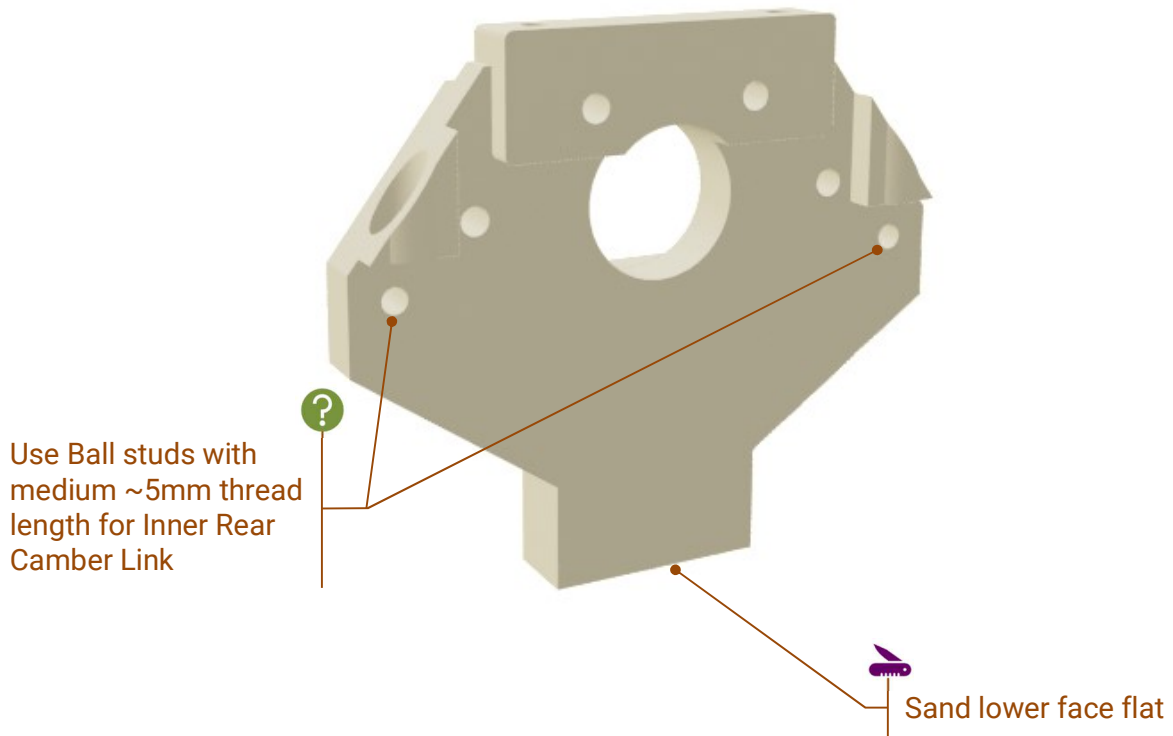
3D Printing "**Overhang**" – lower surfaces with rough/jagged edges can be trimmed with scalpel and clean up with sand paper

Hinge pin holes are slightly undersized and need to be drilled/reamed to suit your hinge pins

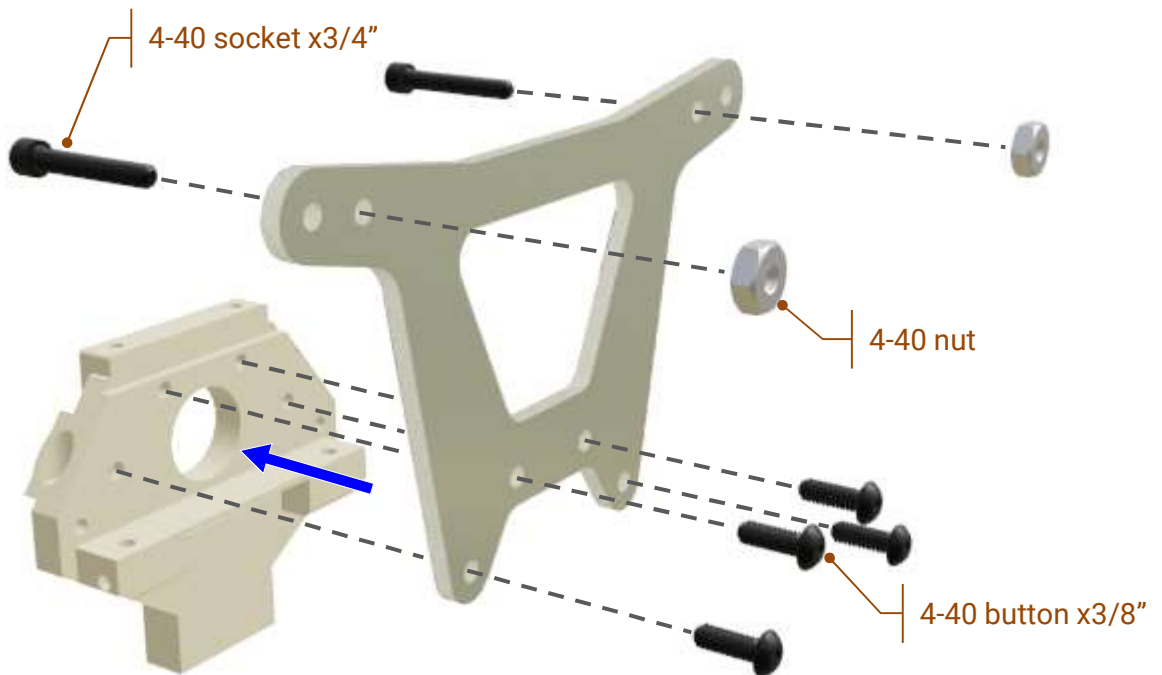
3D Printing "**Brimlets**" – as per Brim; slice off with scalpel, clean up edges with sand paper



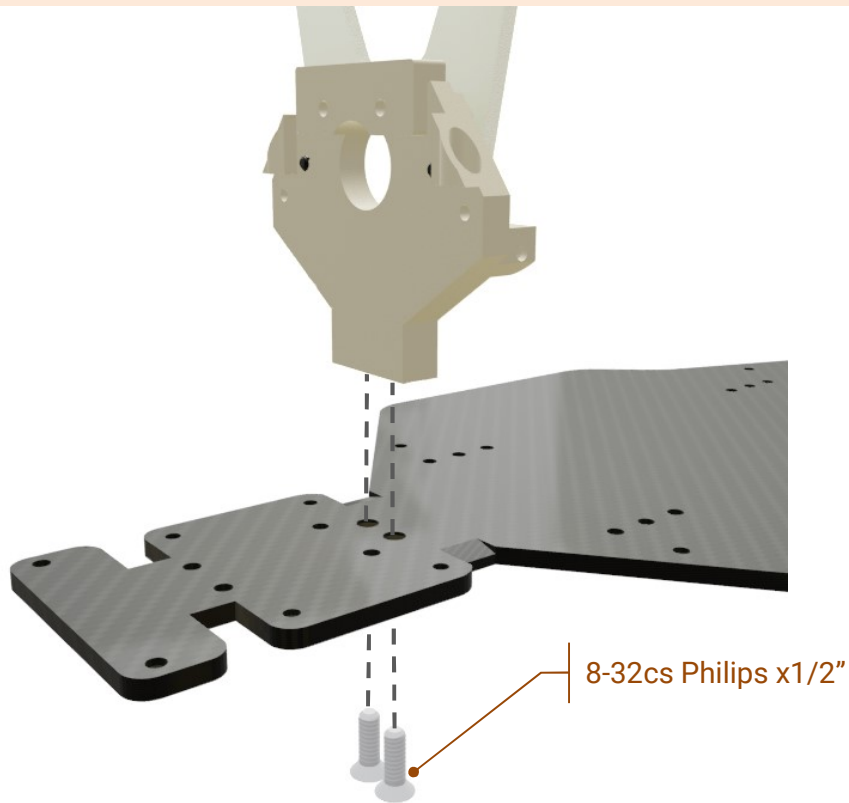
STEP 1.1 - REAR BULKHEAD



STEP 1.2 - REAR SHOCK TOWER



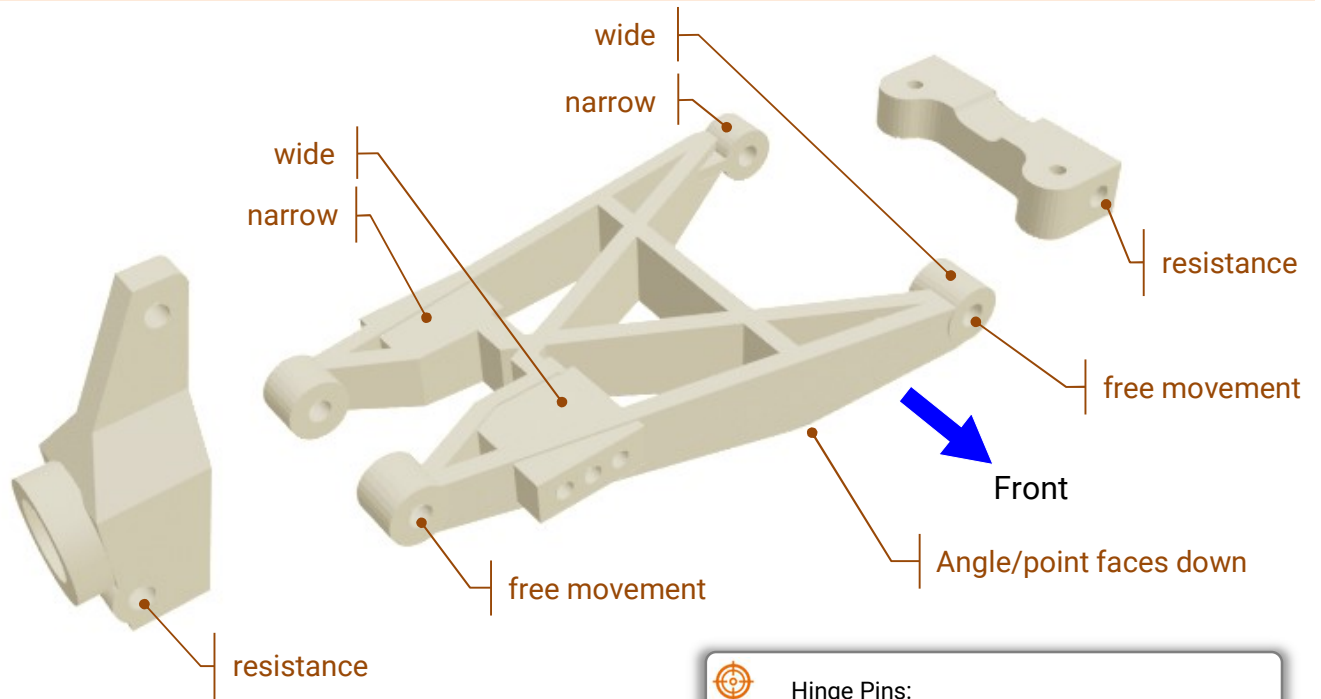
STEP 1.3 – REAR BULKHEAD ASSEMBLY TO CHASSIS




STEP 1 - COMPLETED



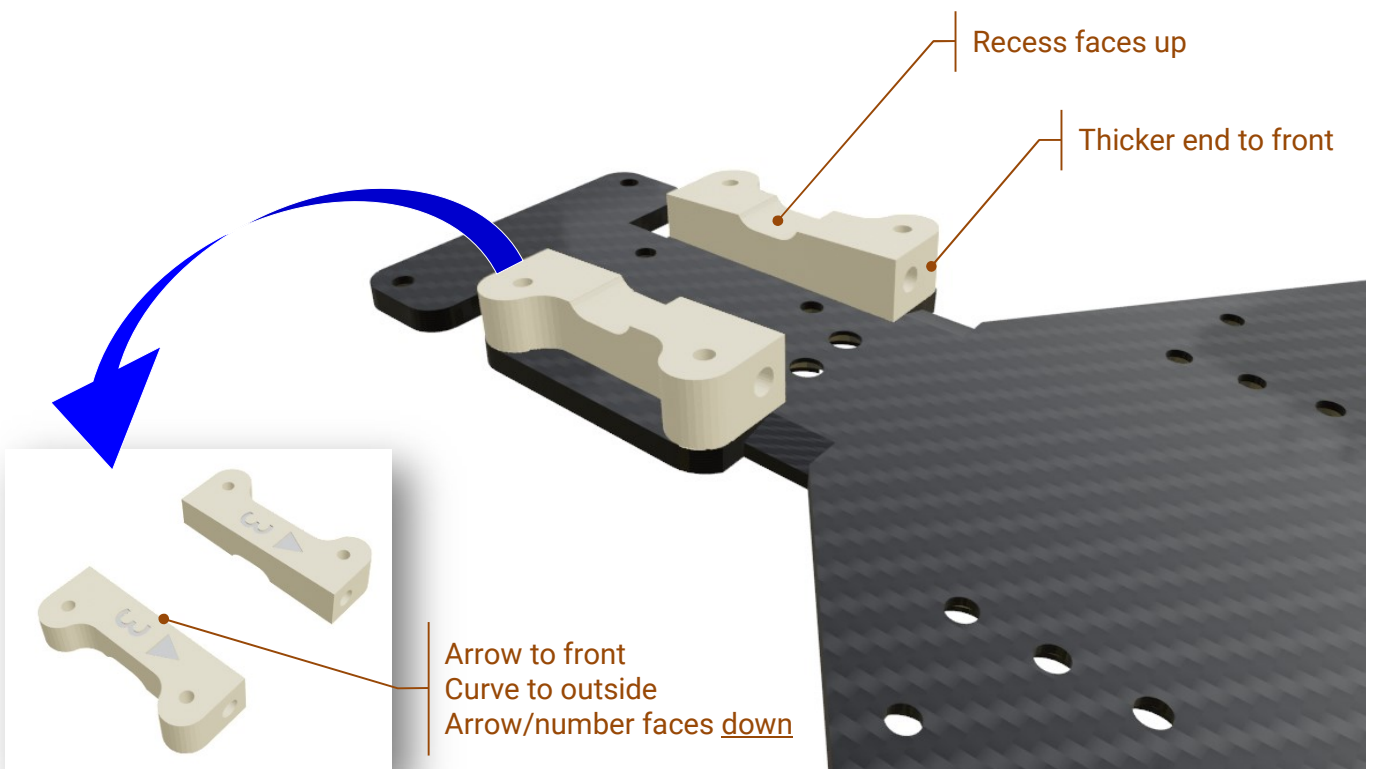
STEP 2.1 – REAR SUSPENSION - PREPARATION



 Hinge Pins:

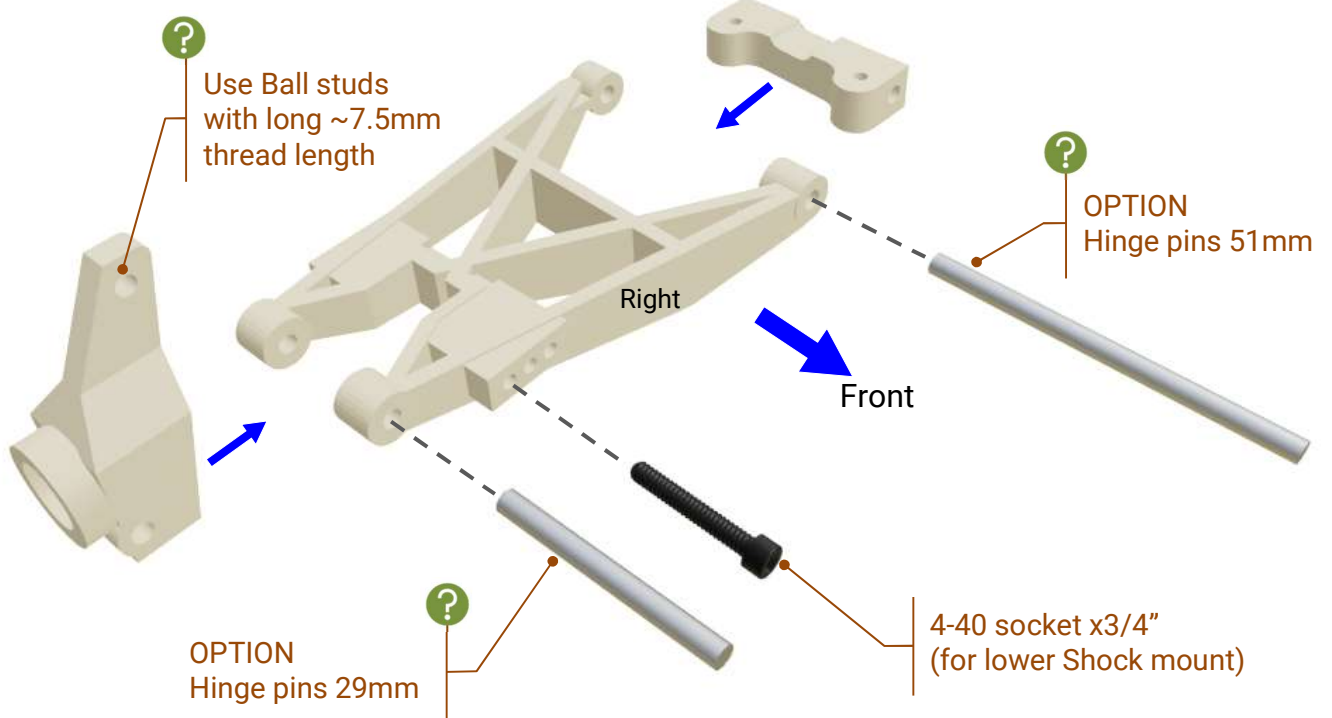
- Drill/ream to suit hinge pins
- Designed for 1/8" / 3.17mm diameter
- Available from GP3D

STEP 2.2 - REAR SUSPENSION MOUNTS - ORIENTATION



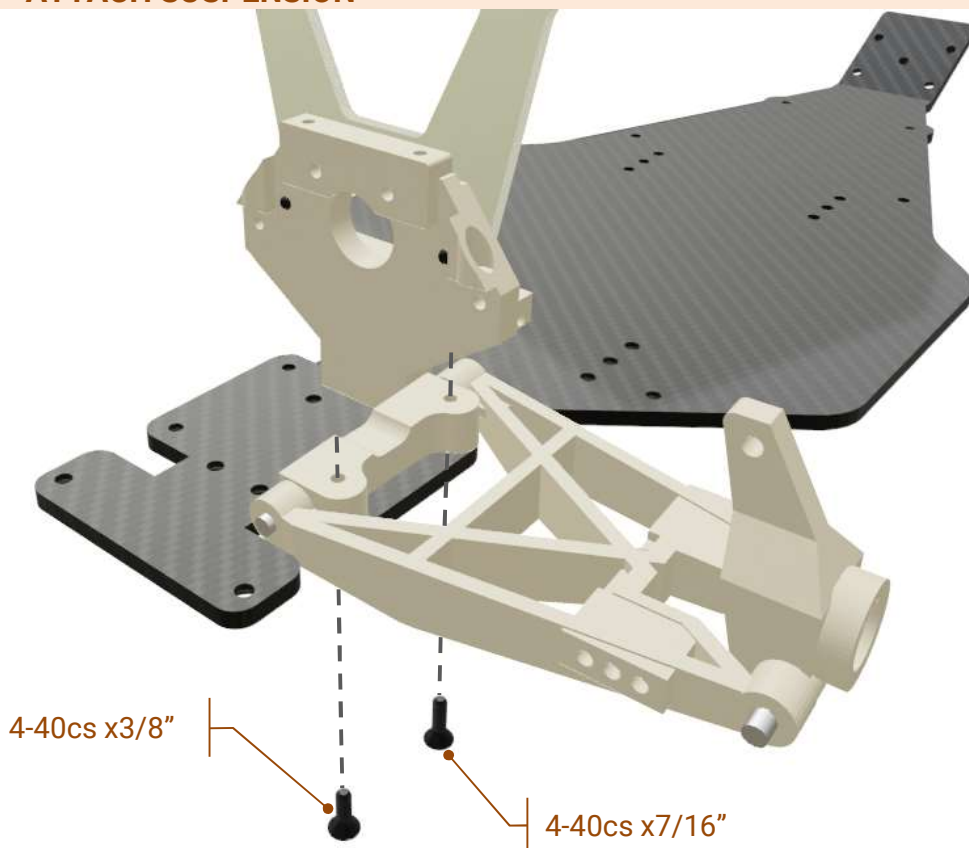
STEP 2.3 – REAR SUSPENSION

L&R



STEP 2.4 – ATTACH SUSPENSION

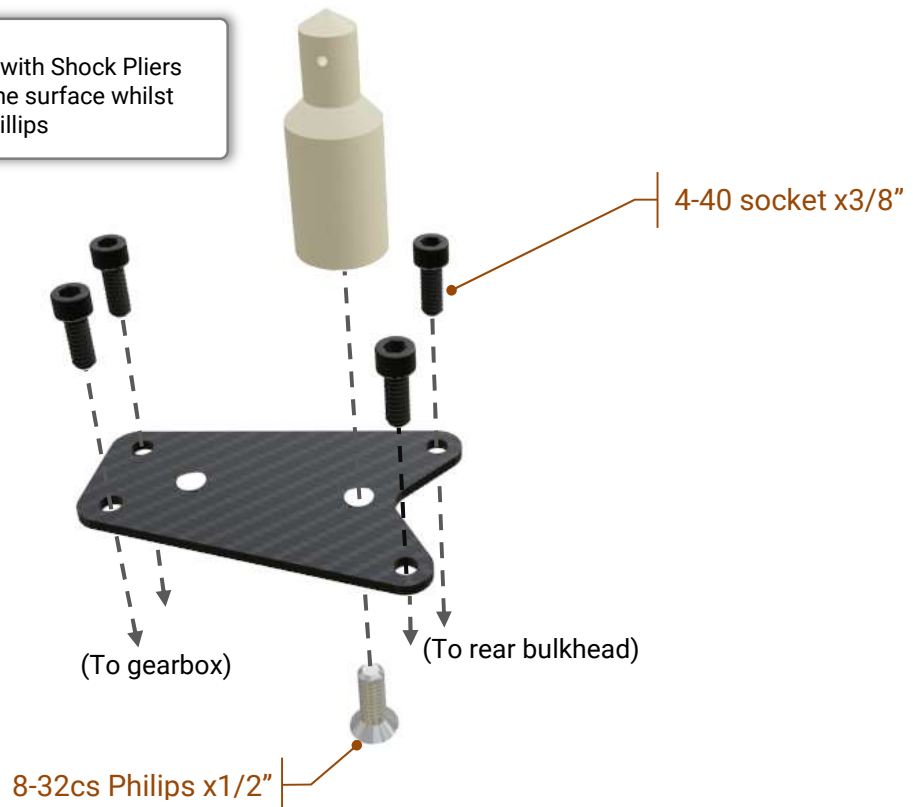
L&R



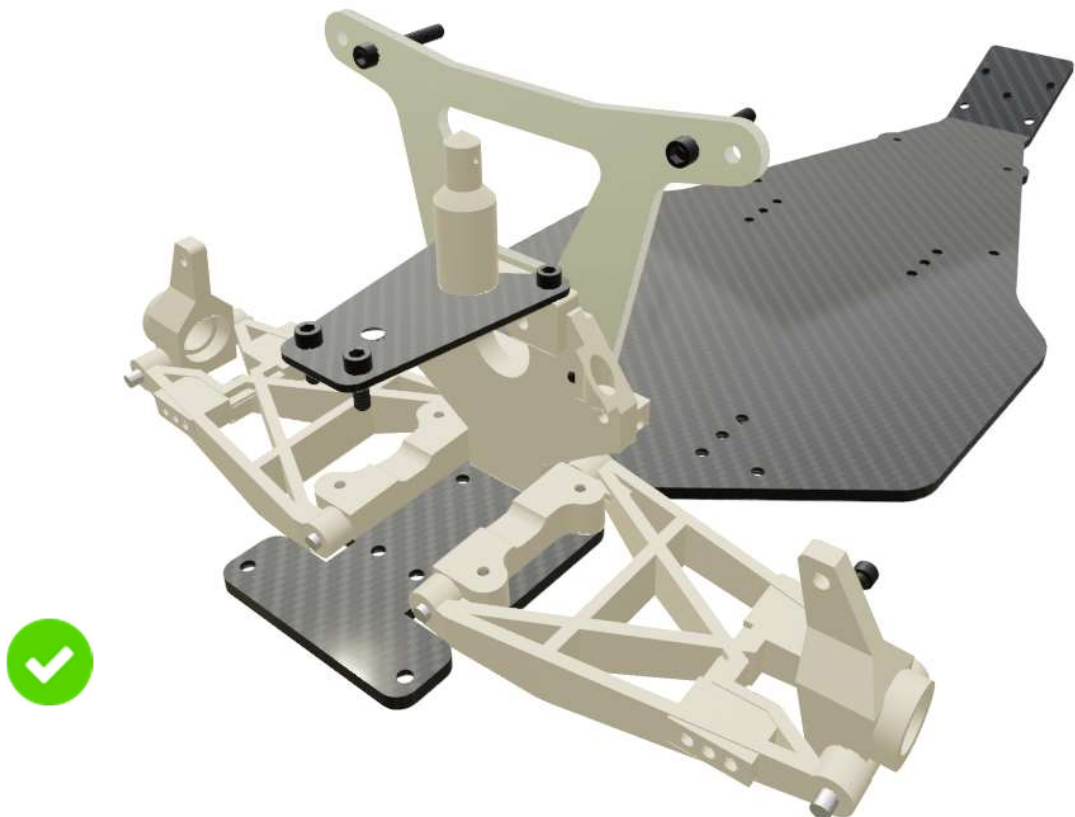
STEP 2.5 – GEARBOX BRACE



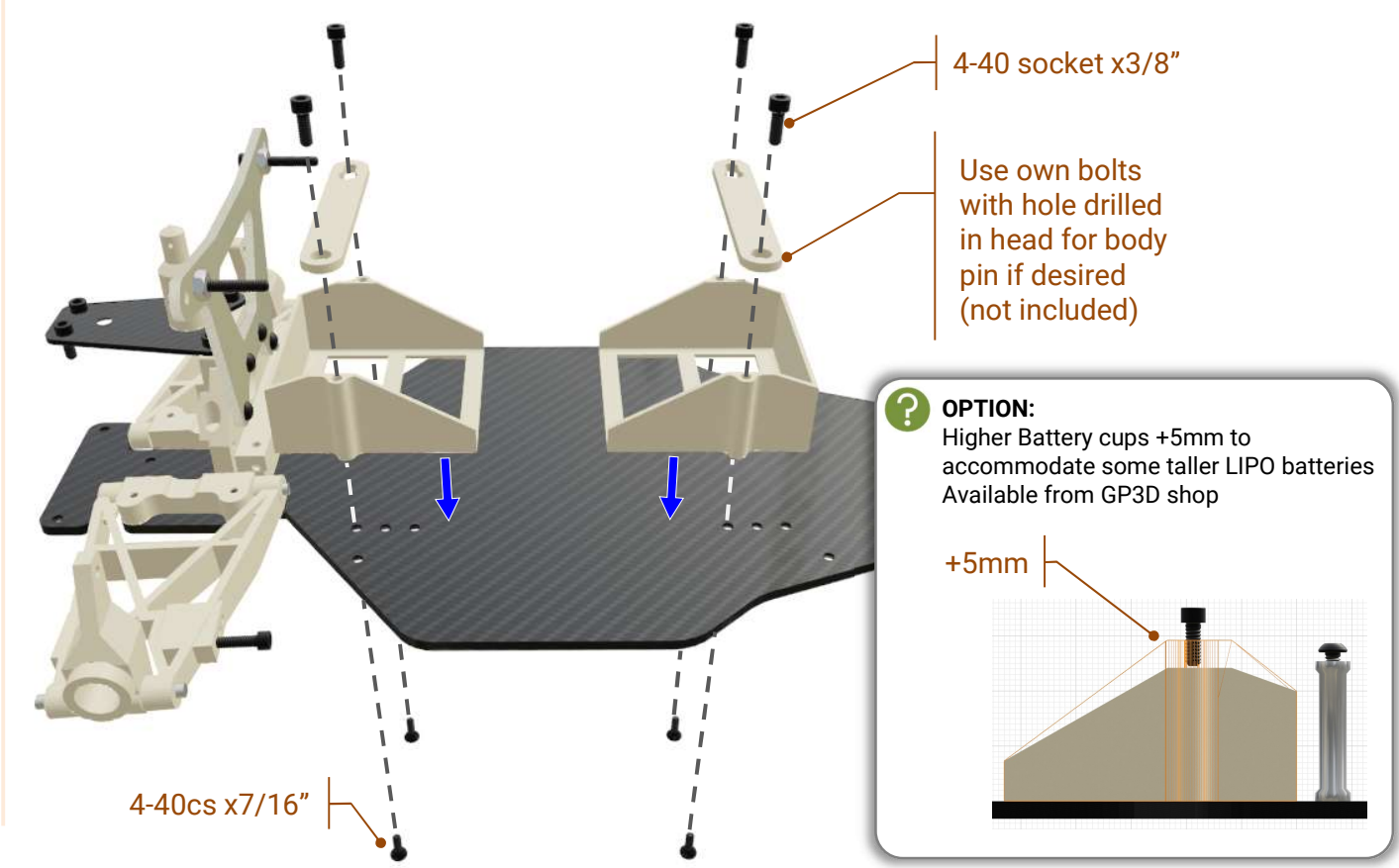
Hold rear Body Post with Shock Pliers to avoid damaging the surface whilst tightening 8-32cs Phillips



STEP 2 - COMPLETED



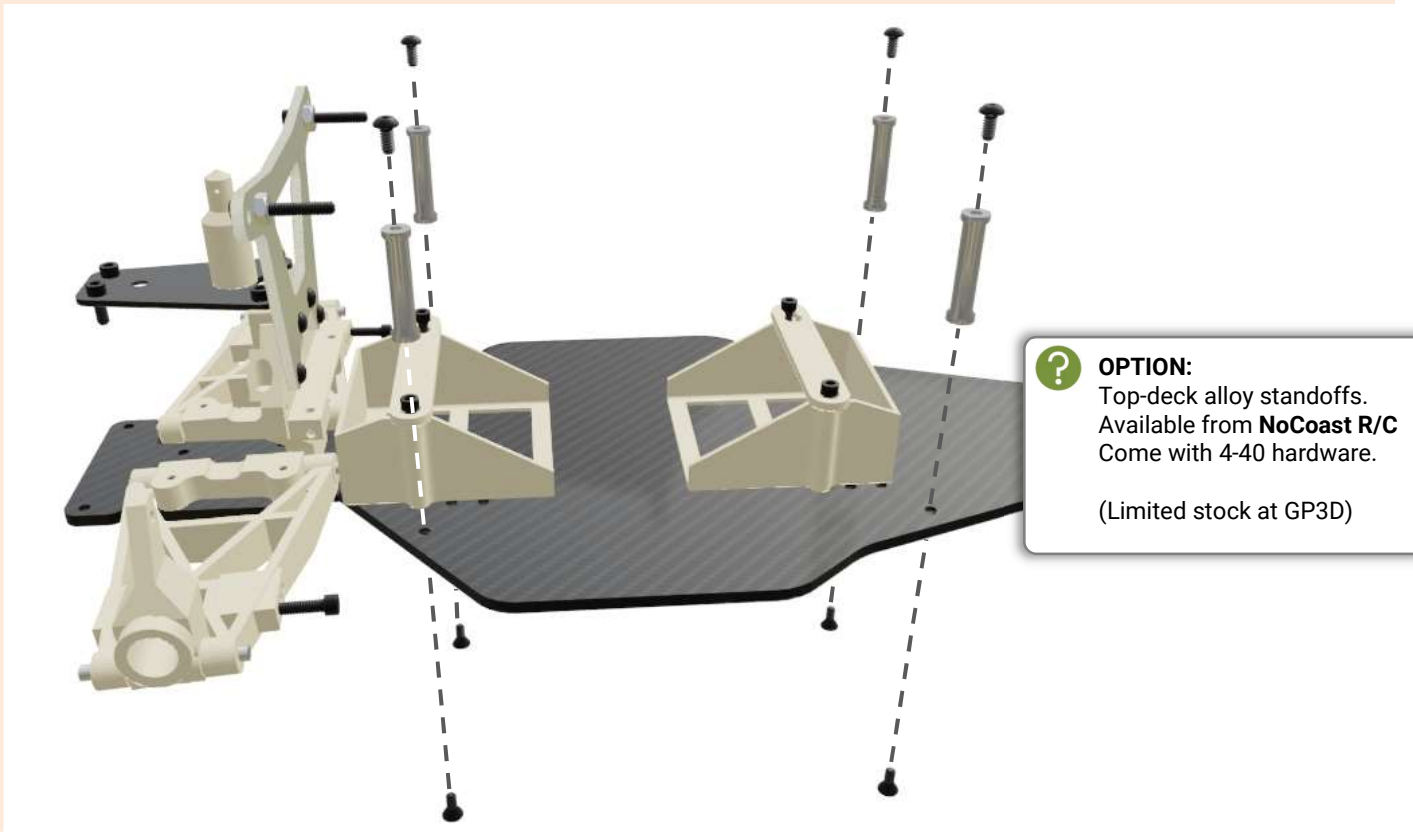
STEP 3.1 – BATTERY CUPS



? OPTION:
 Higher Battery cups +5mm to accommodate some taller LIPO batteries
 Available from GP3D shop

+5mm

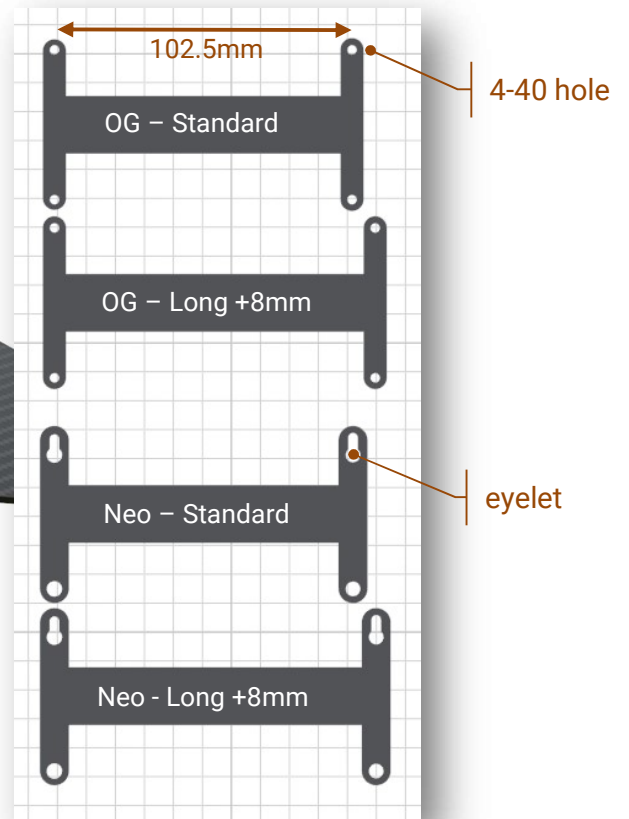
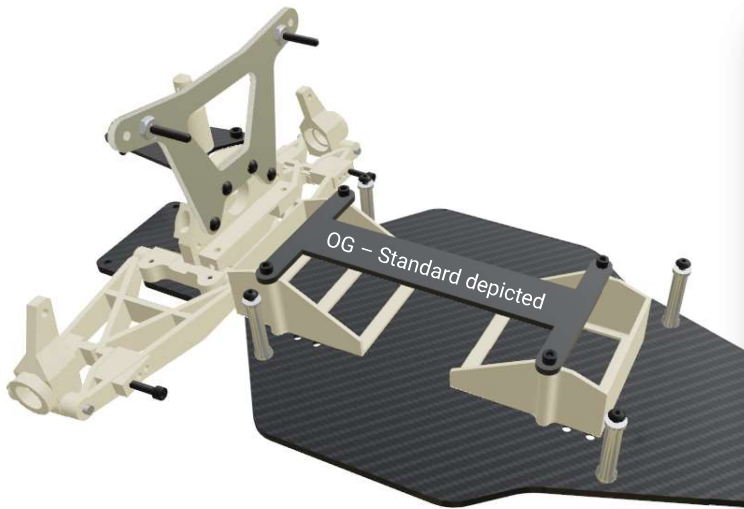
STEP 3.2 – OPTIONAL - STAND-OFFS



? OPTION:
 Top-deck alloy standoffs.
 Available from **NoCoast R/C**
 Come with 4-40 hardware.
 (Limited stock at GP3D)



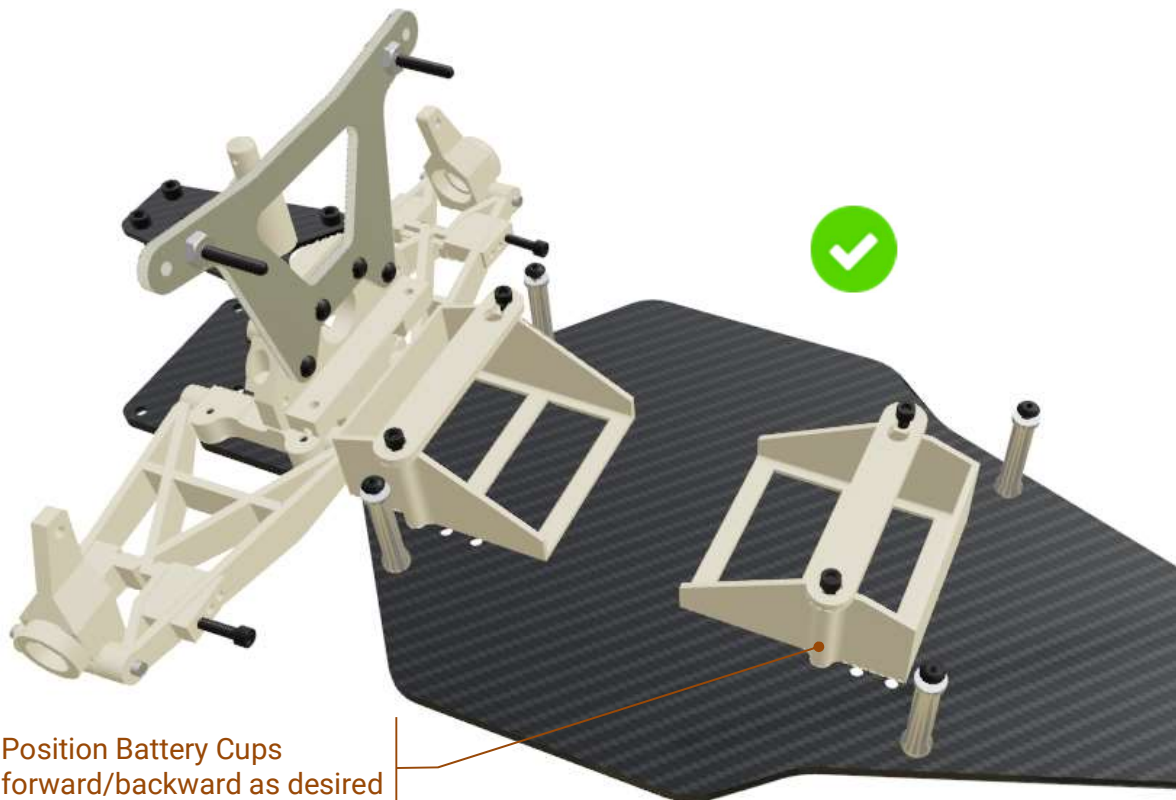
STEP 3.3 – OPTIONAL – “BK STYLE” BATTERY STRAPS



OPTION:
 The Brian Kinwald “BK” style one-piece Battery Straps are available in:

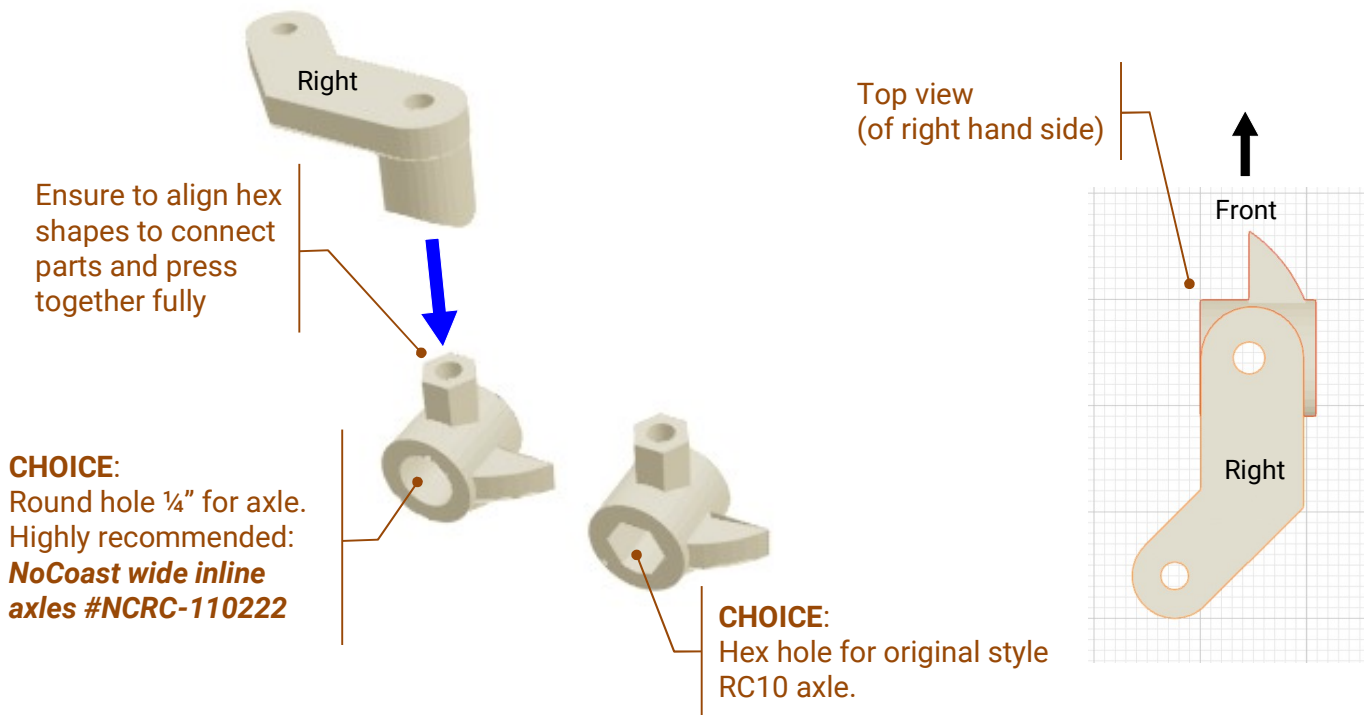
- Original “OG” small hole OR “Neo” larger hole/eyelet styles.
- And each style you can also choose “Standard” or “Long +8mm” variants to allow battery cup further placement

STEP 3 - COMPLETED



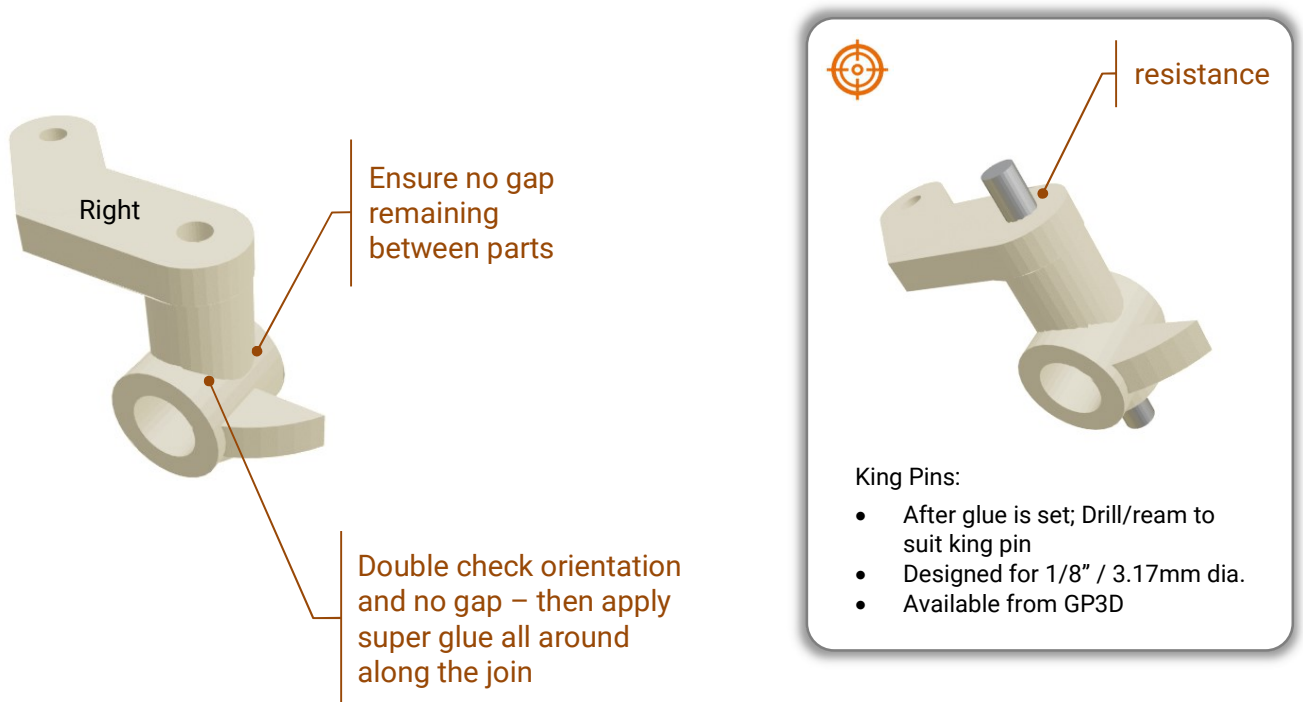
STEP 4.1 – STEERING BLOCKS

L&R



STEP 4.2 – STEERING BLOCKS

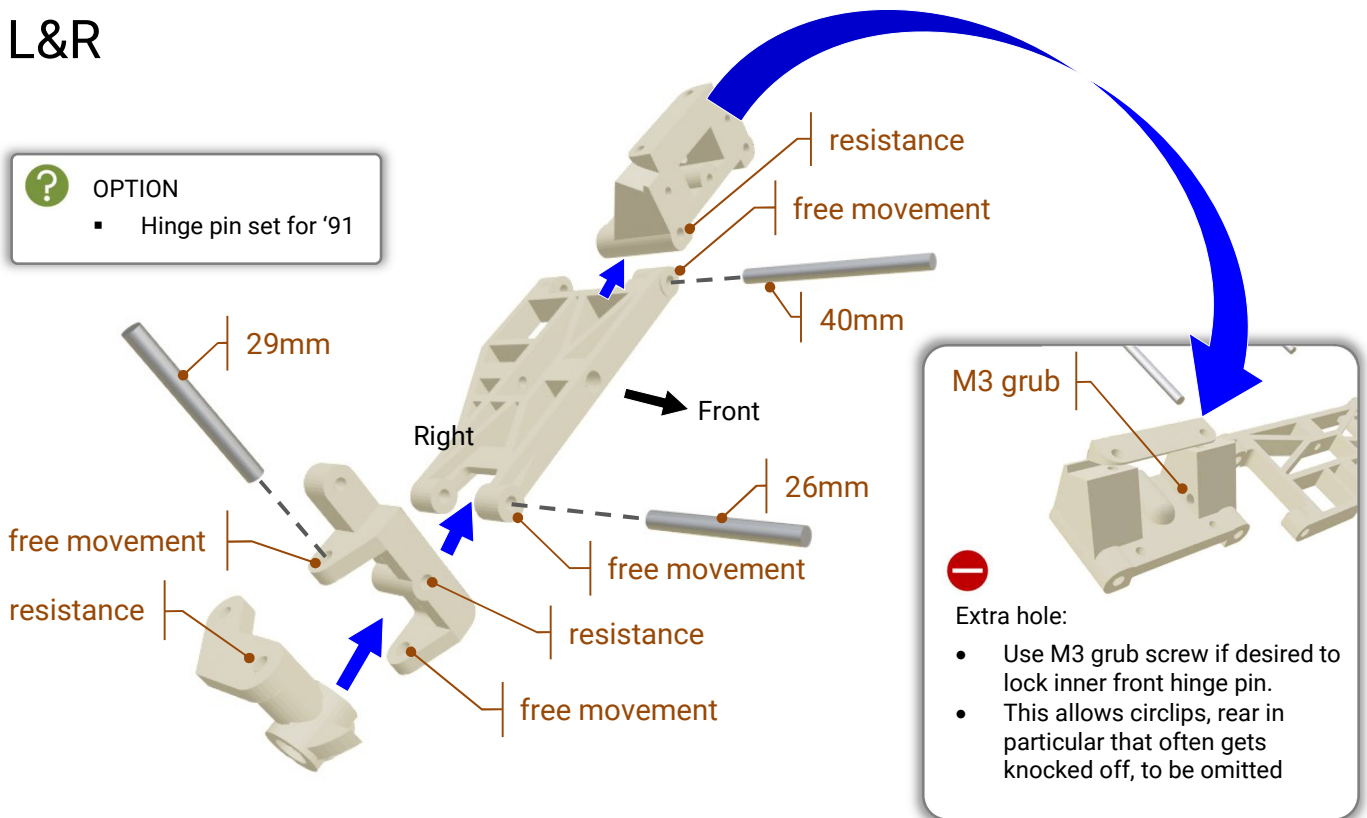
L&R



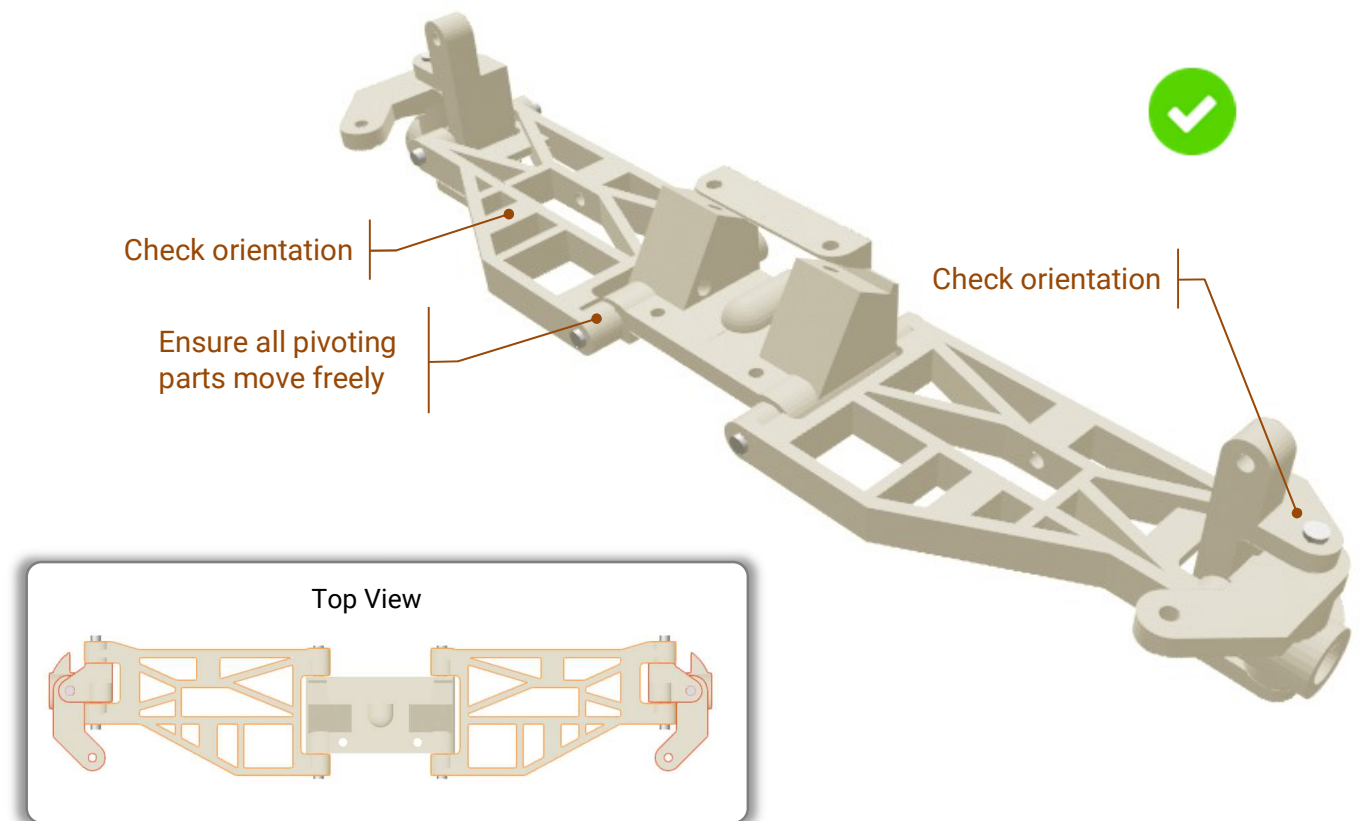
STEP 4.3 – FRONT SUSPENSION

L&R

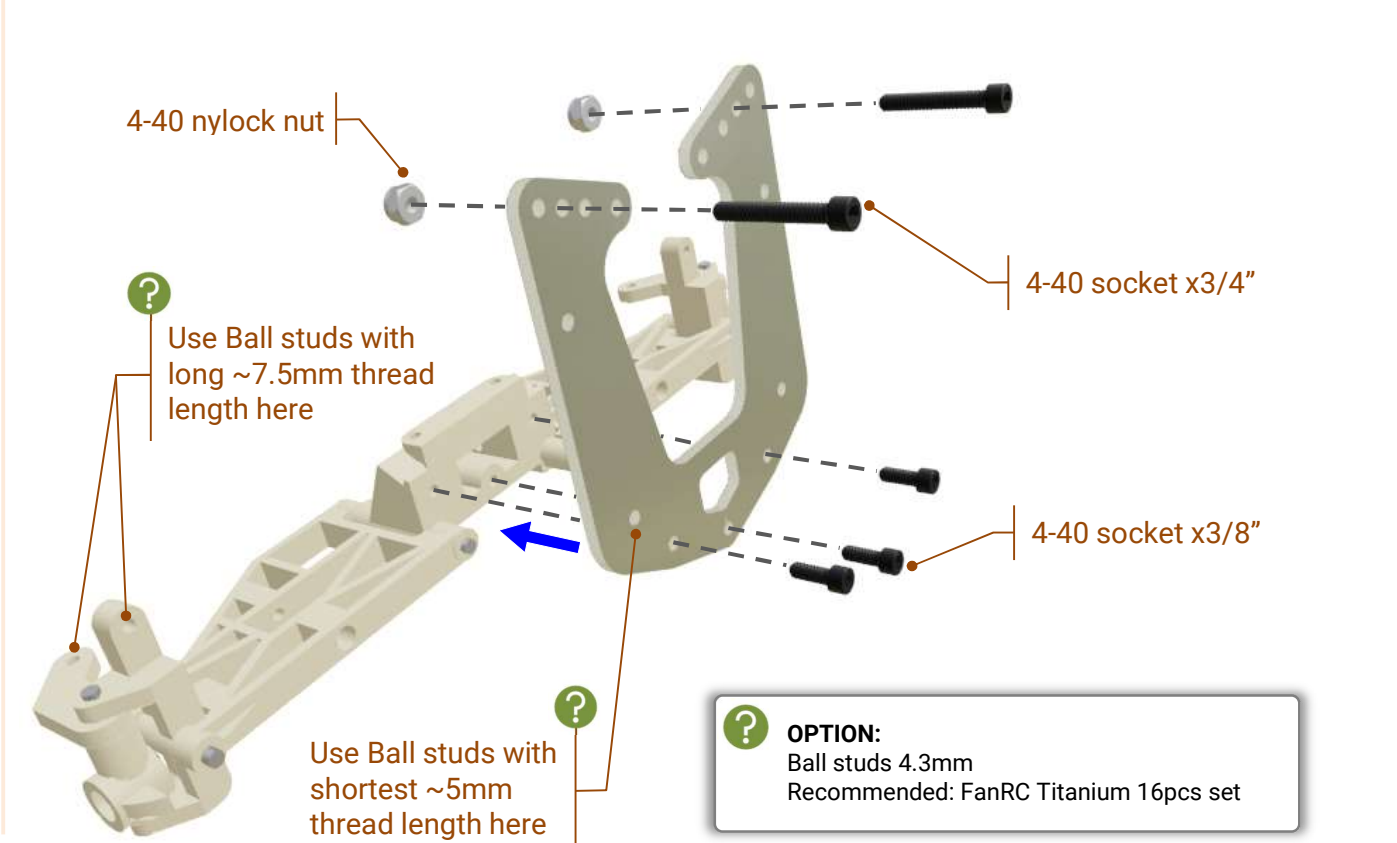
? OPTION
 ▪ Hinge pin set for '91



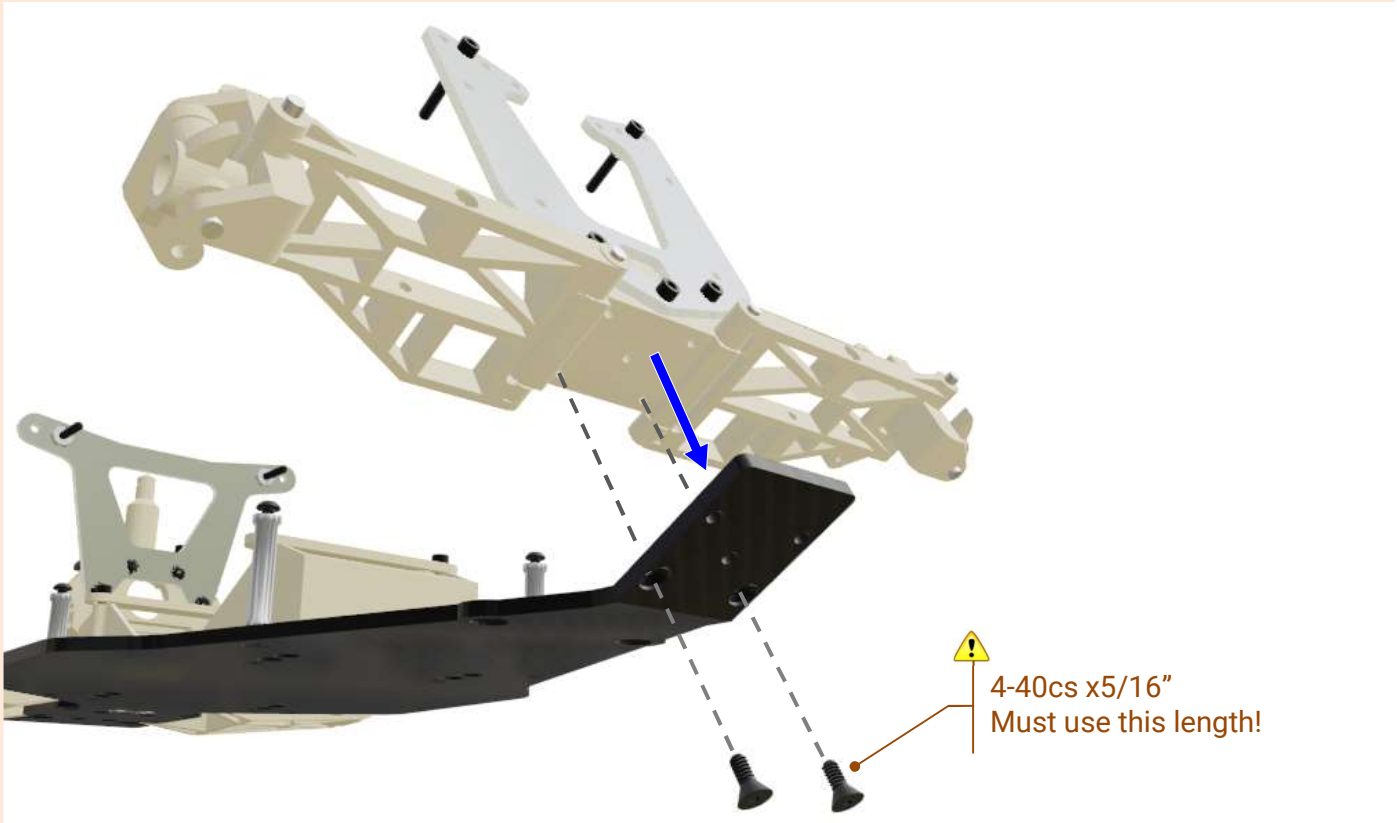
STEP 4.3 – FRONT SUSPENSION - CHECKPOINT



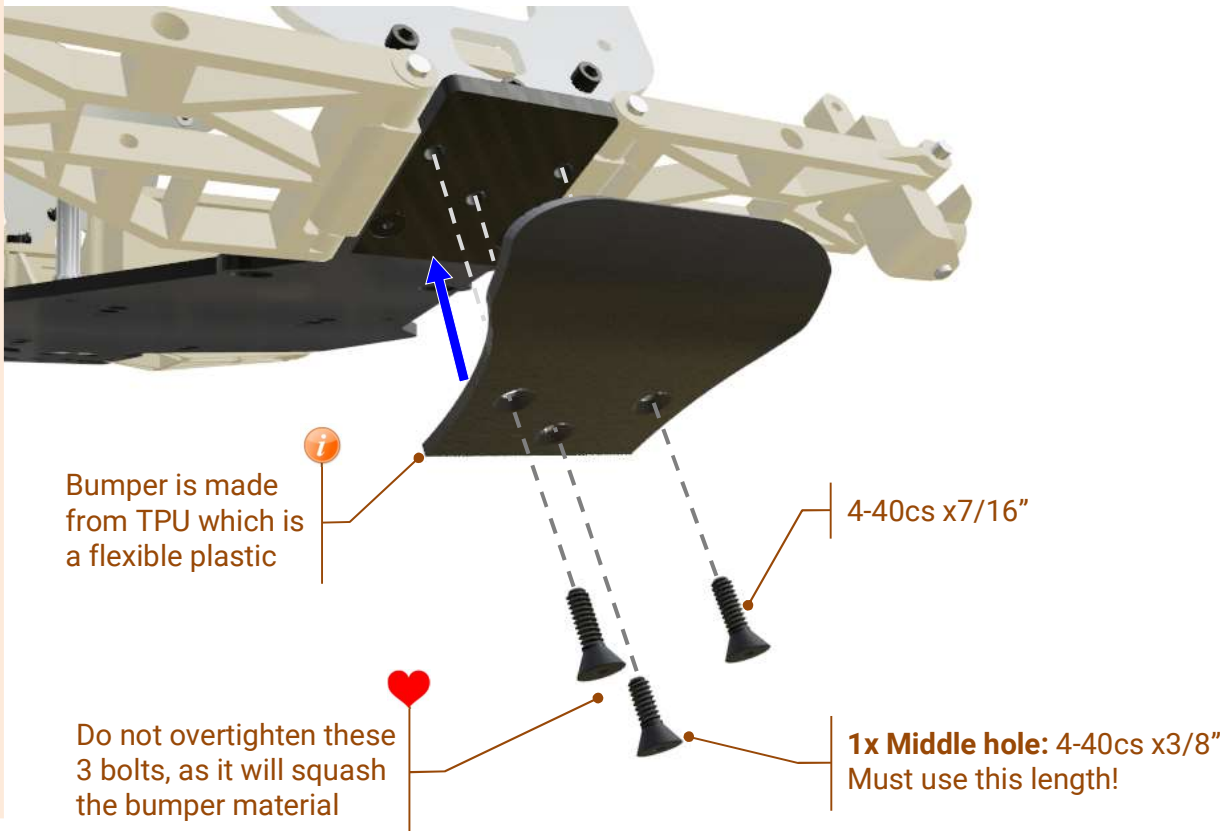
STEP 4.4 – FRONT SHOCK TOWER



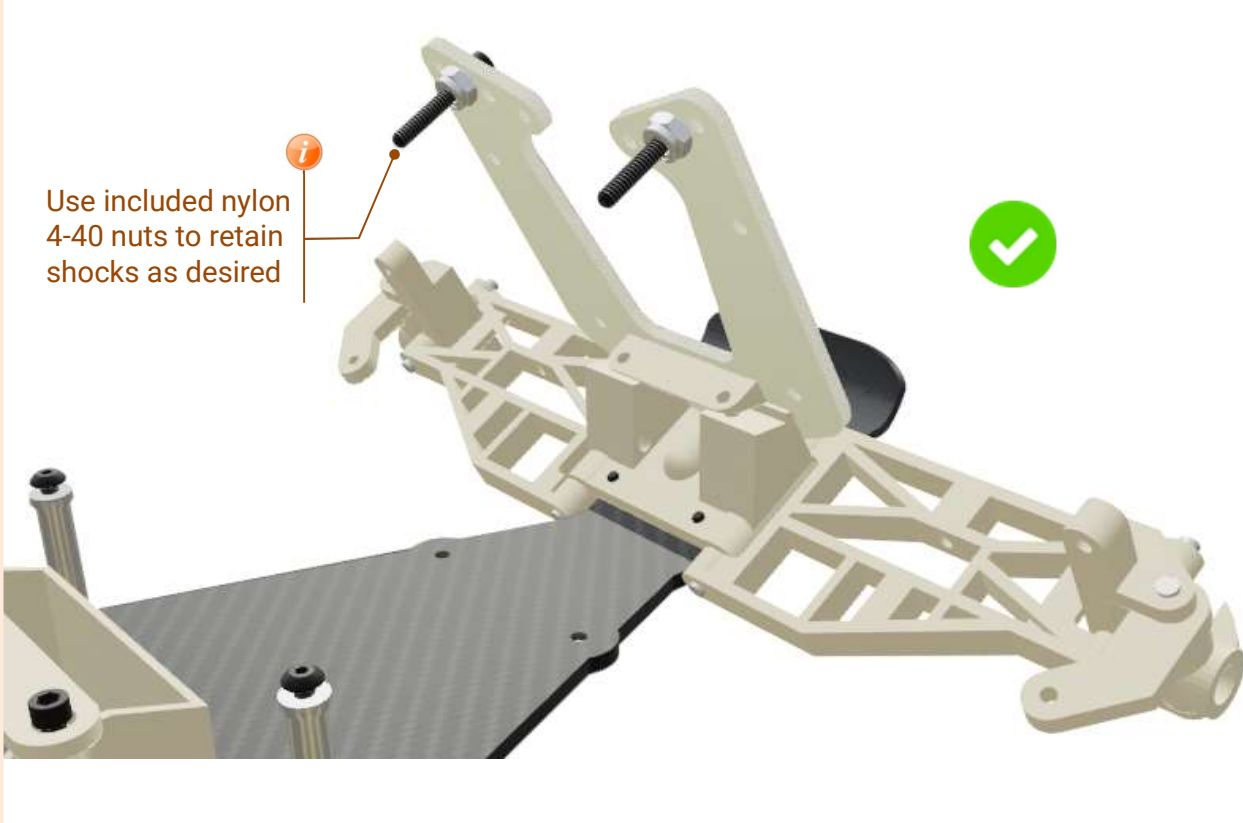
STEP 4.5 – ATTACH FRONT SUSPENSION ASSEMBLY



STEP 4.6 – FRONT BUMPER



STEP 4 - COMPLETED



STEP 5.1 – STEERING BELL CRANKS

#5) Carefully align and thread thumb nut onto spindle thread

#4) Insert spacer into top of spring

#3) Slide spring over alloy spindle

#2) Slide plastic bell crank over alloy spindle

#1) Insert servo arm into right bell crank

Lightly trim rim with scalpel or sand paper if needed

Ensure spindle hex base inserts flush into corresponding recess of bell crank

Completed

i Please be very careful with the thumb nut and spindle threads as these parts are aluminium and can be damaged if cross threaded. And do NOT overtighten against the compressed spring.

STEP 5.2 – STEERING BELL CRANK - POSTS

8-32" narrow nut (Use 1/4" spanner)

Use Loctite on these nuts

Phillips hybrid bolt – short/left

Phillips hybrid bolt – long/right



STEP 5.3 – ATTACH STEERING BELL CRANK ASSEMBLY

Use shock pliers to tighten front body post if needed

Tighten until bell crank assembly has tiny vertical play only, but not restricting its rotation

4-40 "nylon" nut

i

Position and rotate Bell crank assemblies to clear front tower, bulkhead and suspension arms as you slide them over the post bolts.

The left bell crank part hole may need to be lightly drilled/filed until it clears and slides smoothly over the post bolt.

STEP 5 - COMPLETED

Use Ball studs with shortest ~4mm thread length for bell cranks and servo link

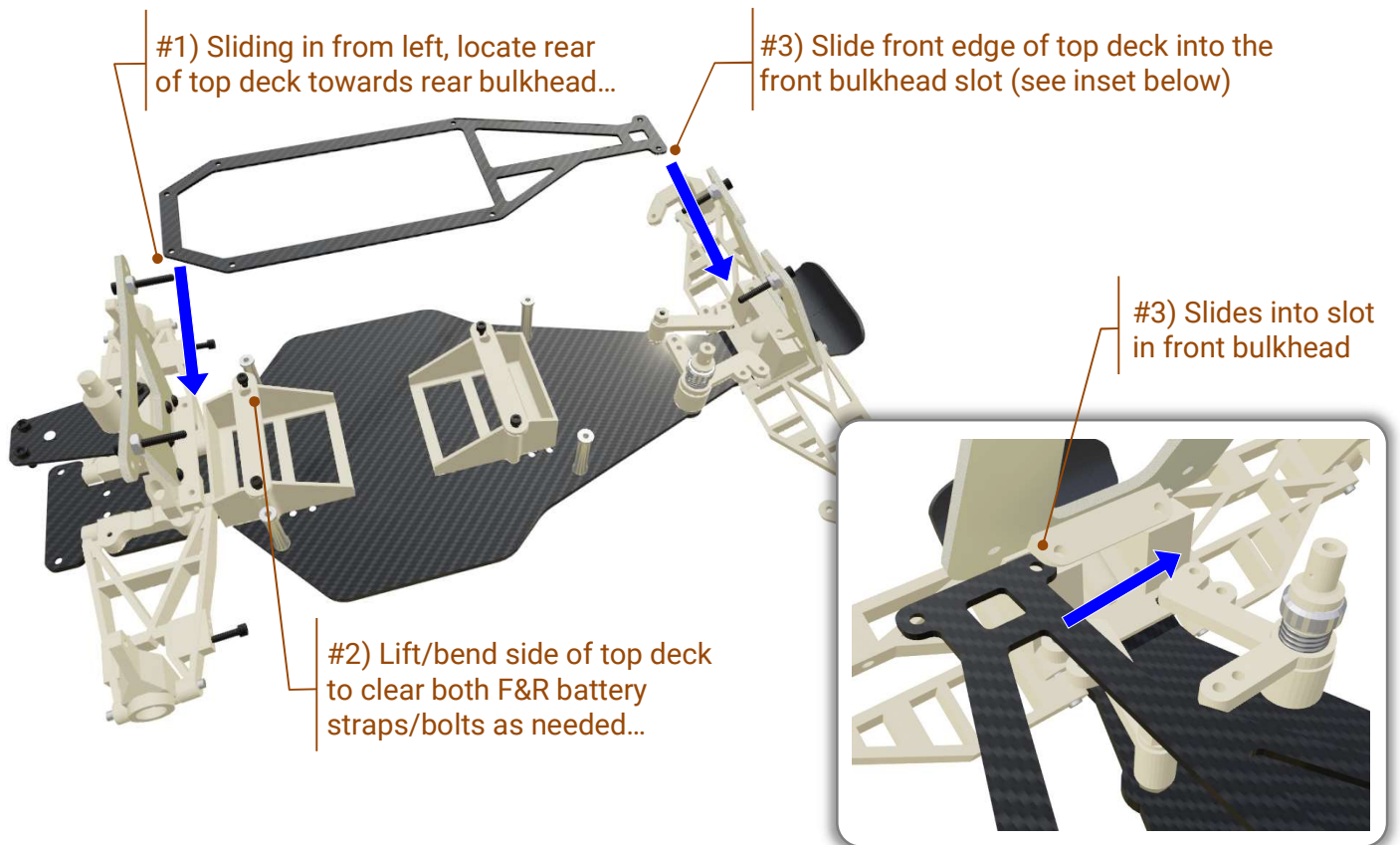
Bell cranks Top view

i

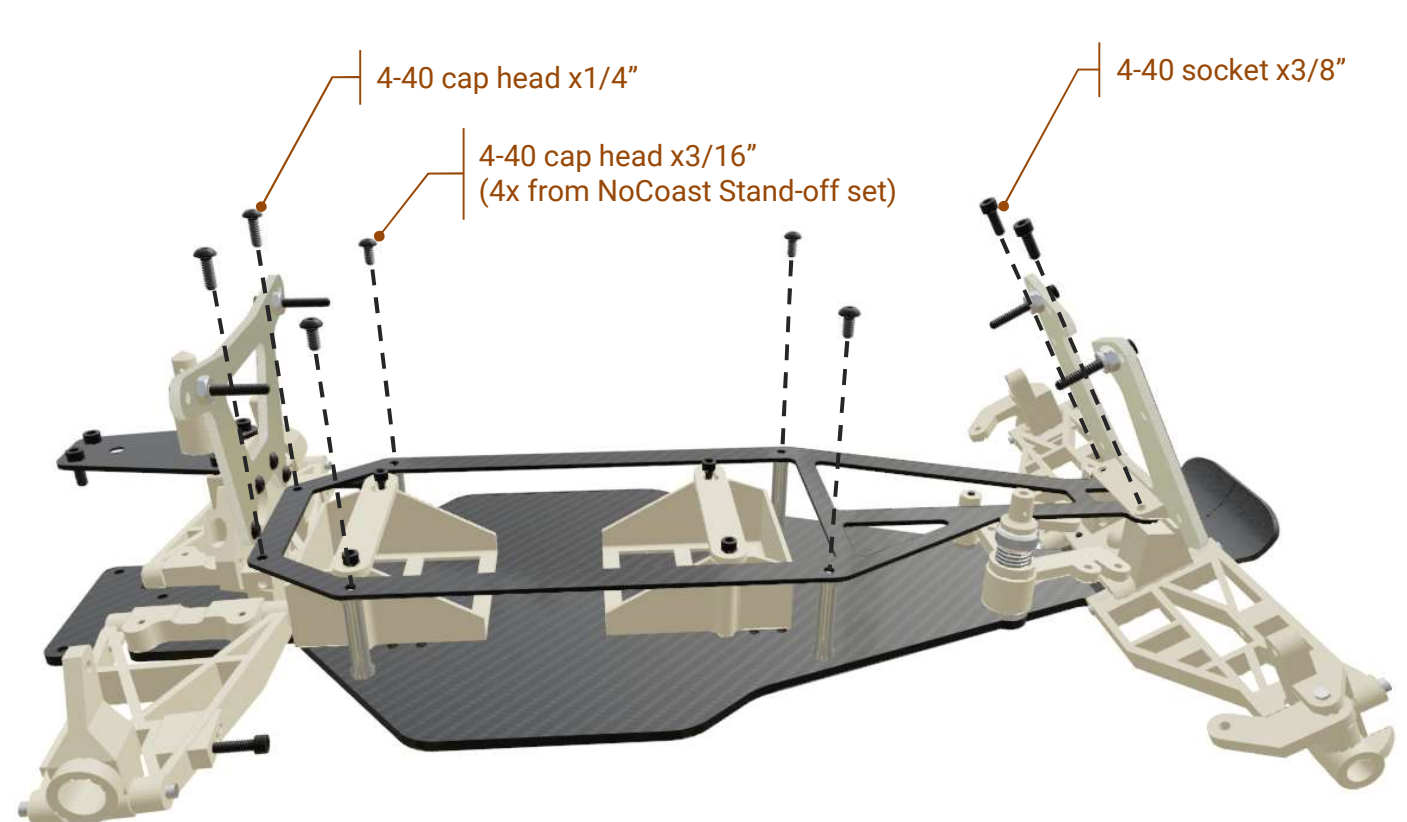
Ensure 90deg angles as shown between steering posts and ball stud positions when setting up steering and servo turnbuckles.



STEP 6.1 – TOP DECK



STEP 6.2 – TOP DECK



RC10 '91 DETROIT – REPLICA CONVERSION KIT – COMPLETED! AWESOME!



Congrats!
Now over to you for the rest of your build...
Have FUN!!!
Please send us your build pics if desired!

RC10 '91 DETROIT – OPTION PARTS



Here are some suggested option parts available from us here at **GP3D** and some from our amazing friends at; **Gazza Motorsport, NoCoast, FanRC, JC Racing Products, Boki, Penguin and Looney Fumes**

