NRC PROJECTS

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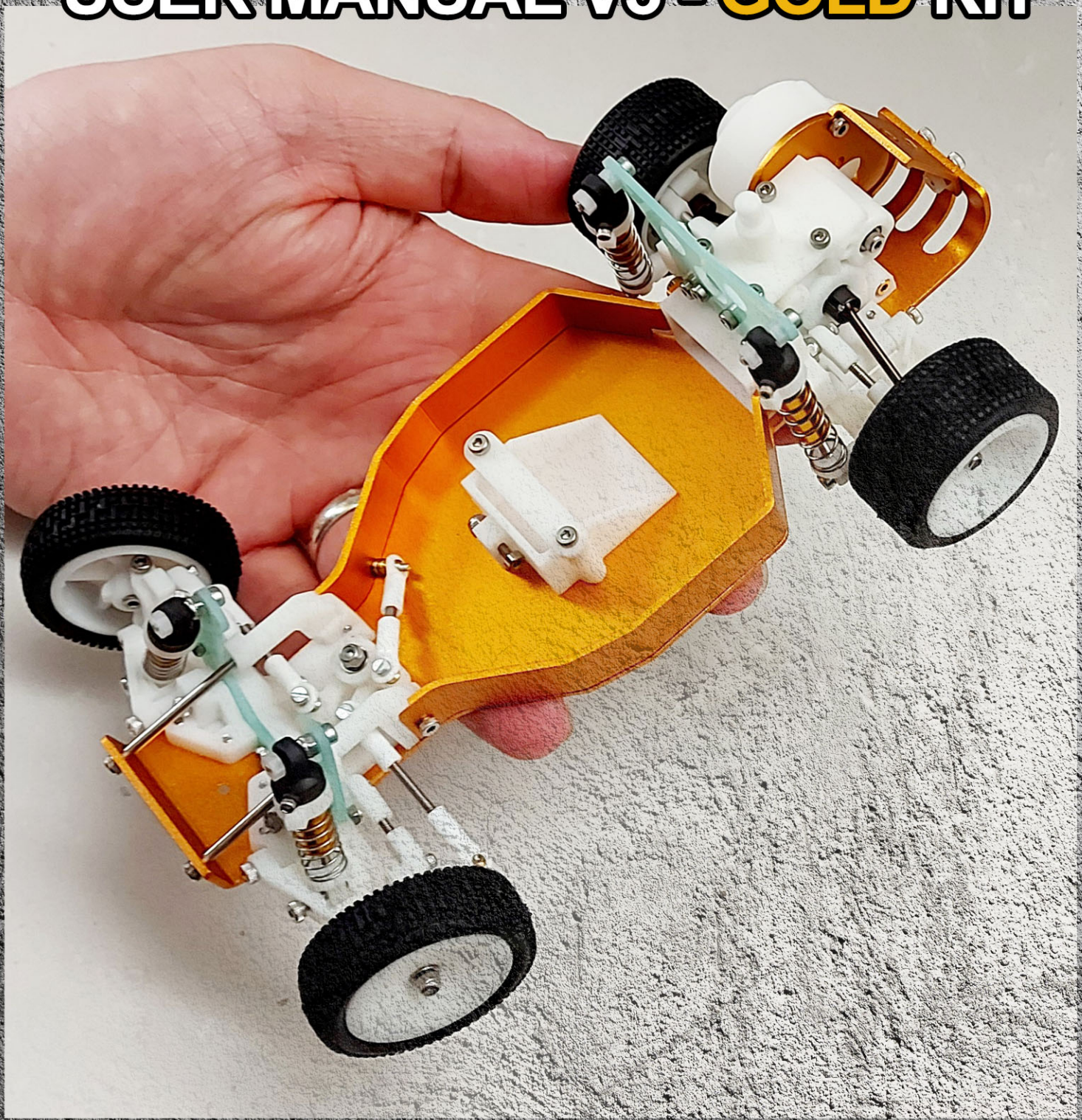
USER MANUAL V3 - GOLD KIT

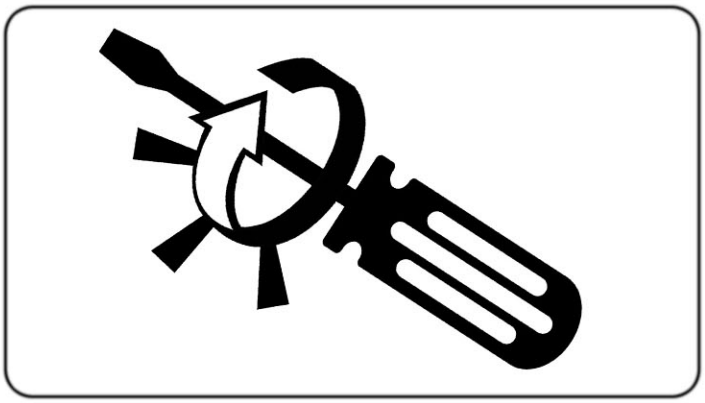


NRC PROJECTS

IMPORTANT INFORMATION

Keep away from children.
This kit contains many small parts and choking hazards

Please be advised that whilst the resin 3D printed parts are cured & safe, they should never be swallowed!
(I hope this goes without saying !)



Do not overtighten parts !
3D printed parts are more vunerable to overtightening.
Avoid excessive removal/ reattaching of screws.

The washing/ curing process of the resin 3D printed parts may leave some areas tacky or sticky. Please use wet wipes (industrial grade are best) on these areas to help the issue

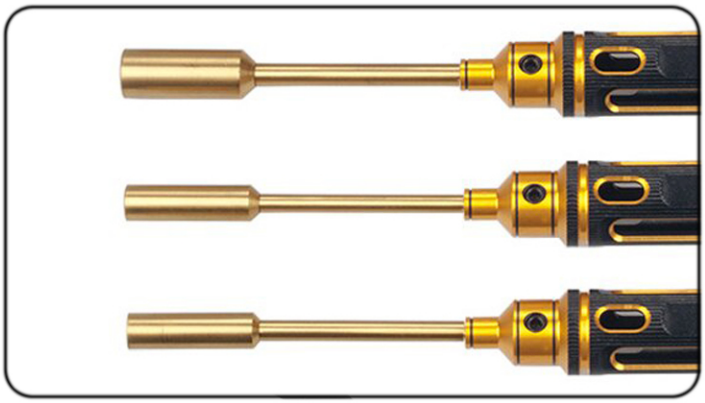
Not sure about something?
Ask us!
hello.nrcprojects@gmail.com
Facebook.com/NRCProjects

NRC PROJECTS

TOOLS REQUIRED

DRIVERS-
*0.9MM HEX
*1.5MM HEX
*PH 0 SIZE PHILLIPS
*APPROX 0.5MM SLOT FLAT HEAD

PIN VISE/ PIN DRILL
DRILL BITS-
*1.5MM
*2MM



M2 NUT DRIVER-
*4MM
*4.5MM (FOR LARGER M2 LOCKNUTS)

SMALL PLIERS

SMALL BOLT CUTTERS

BODYSHELL REAMER

LEXAN SCISSORS

NRC PROJECTS

PARTS BAG 1

M3 WASHER

M2 WASHER

SPUR GEAR

GEARBOX HALVES

3X6X2.5MM BEARINGS

OUTER ADAPTOR

INNER ADAPTOR

M2X6MM

M2 LOCKNUT

M2X 6MM

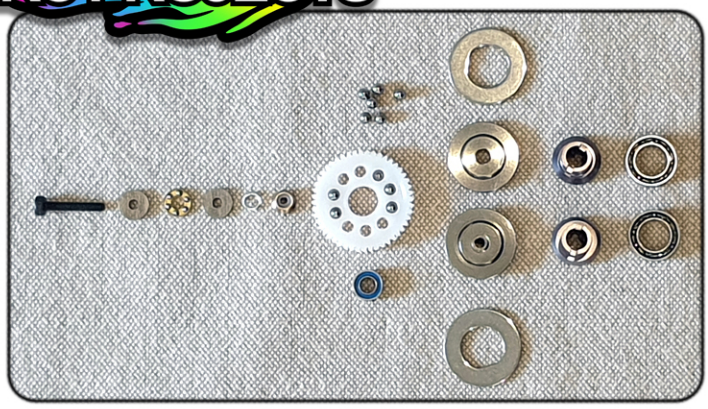
M2X16MM

MOTOR PLATE

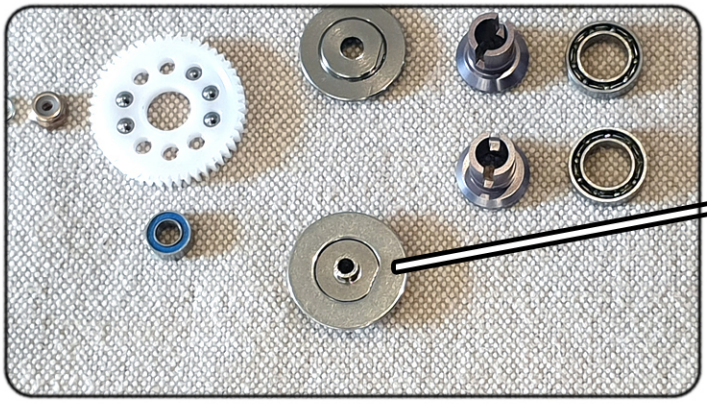
M2 NYLON NUT

M2X5MM

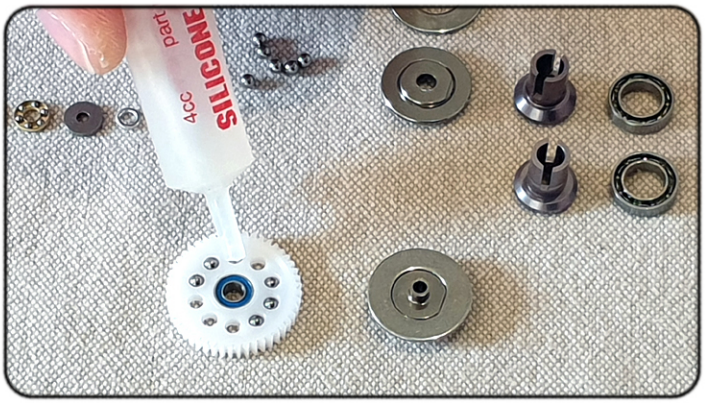
NRC PROJECTS



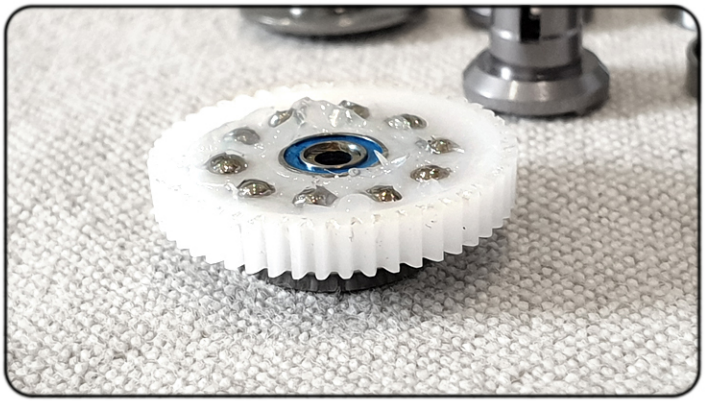
OPEN BALL DIFF BAG, BE CAREFUL NOT TO LOSE THE DIFF BALLS !



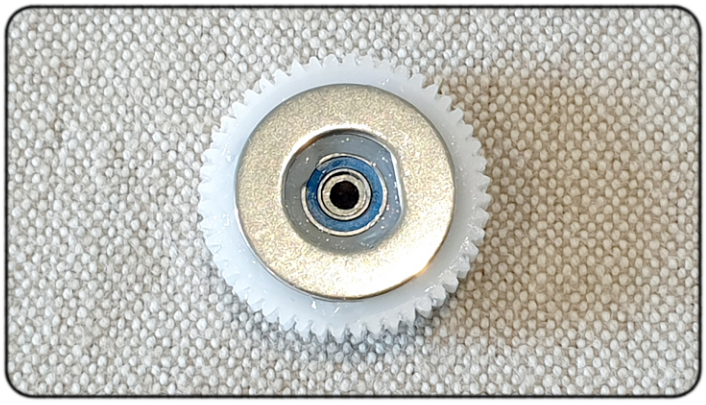
ADD 'D' SHAPED RING TO DIFF HUB



ADD DIFF BALLS, BEARING & SILICONE GREASE TO DIFF GEAR



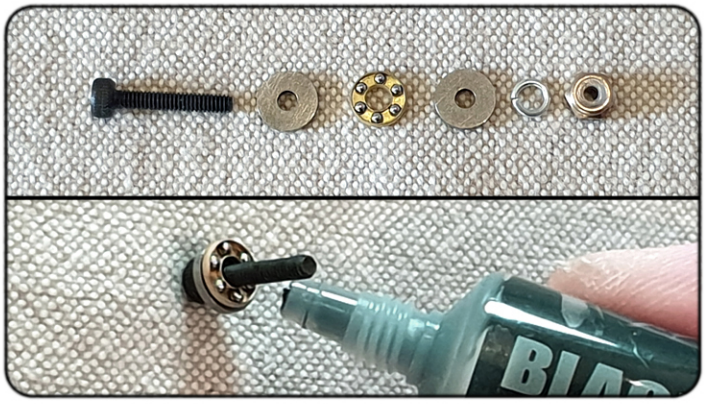
ADD DIFF GEAR TO DIFF HUB



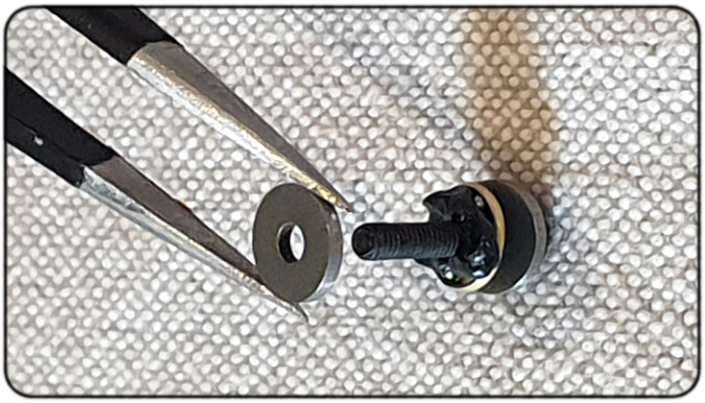
ADD 'D' RING TO DIFF GEAR & HUB

NRC PROJECTS

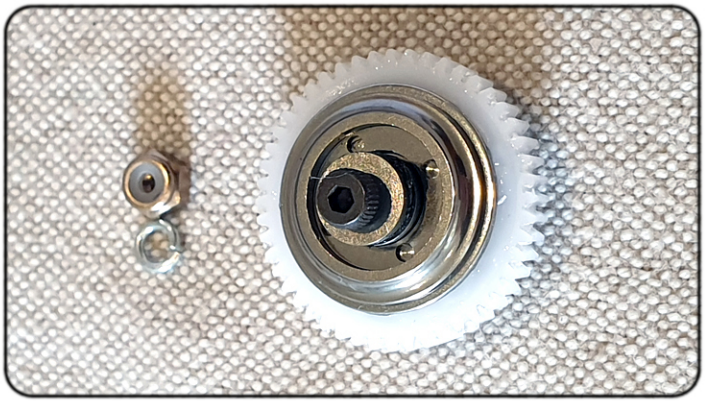
ADD DIFF HUB TO ASSEMBLY



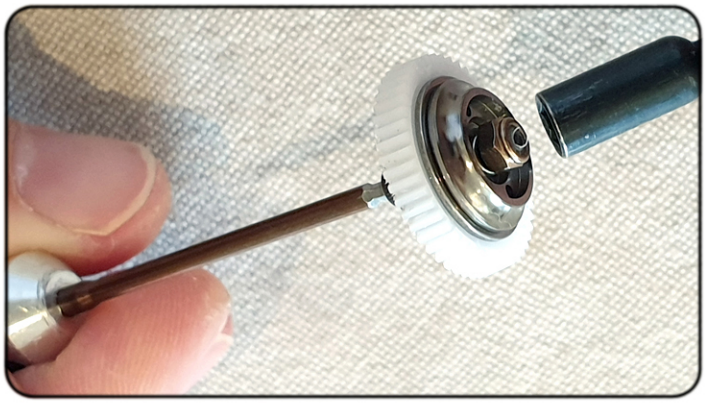
ADD BLACK GREASE TO
THRUST RACE ASSEMBLY



ADD WASHER TO COMPLETE
THRUST RACE ASSEMBLY

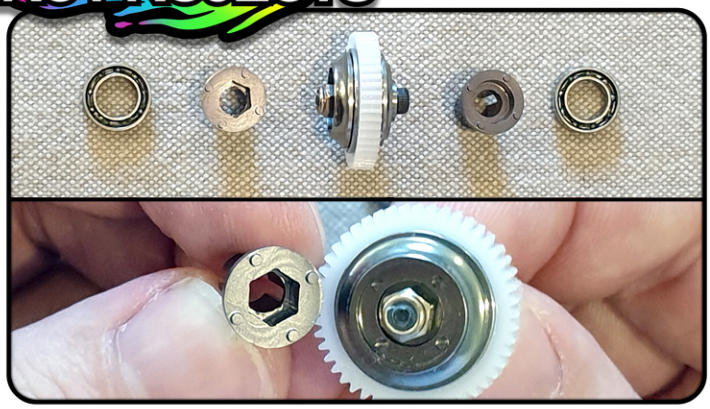


ADD THRUST RACE TO
DIFF ASSEMBLY

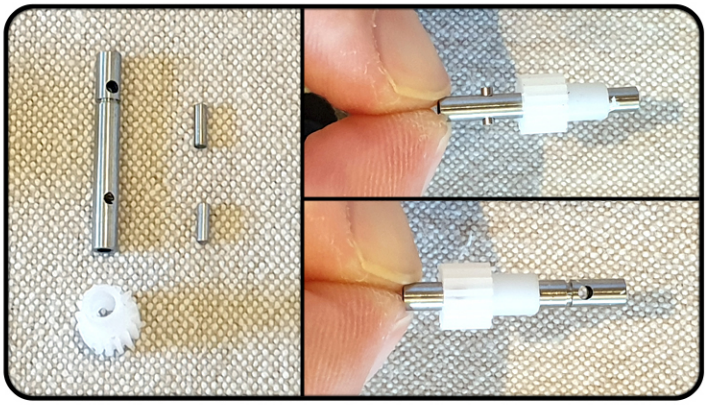


ADD LOCKNUT TO DIFF ASSEMBLY
WITH SPRING WASHER BEHIND IT

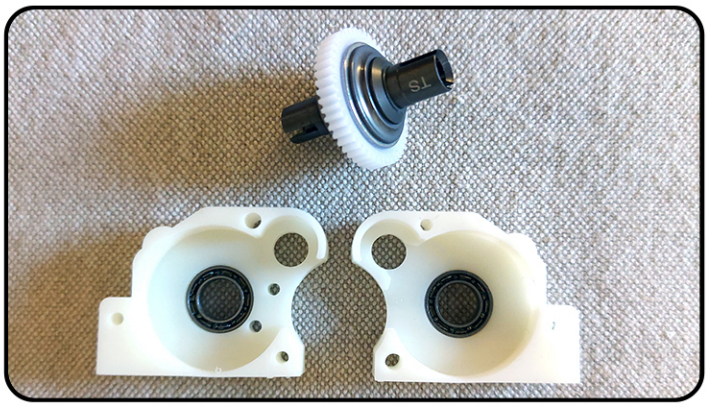
NRC PROJECTS



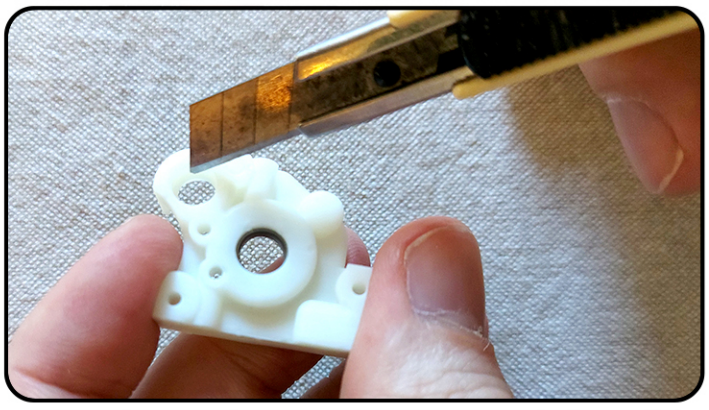
INSERT OUTDRIVES INTO DIFF ASSEMBLY (LEAVE BEARINGS FOR NOW)



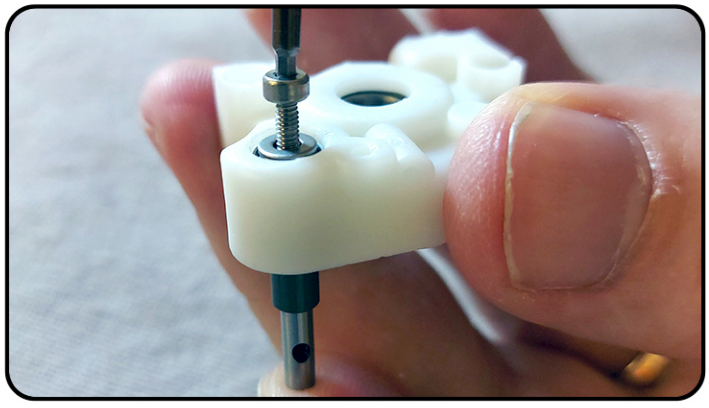
**TOP SHAFT GEAR IS NOW ALLOY
OPEN TOP SHAFT BAG, ASSEMBLE SHORTER PIN & GEAR ONTO SHAFT



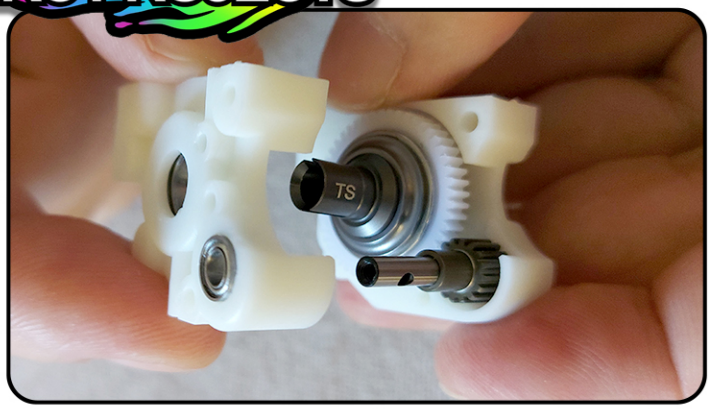
ADD DIFF BEARINGS TO GEARBOX CASE HALVES



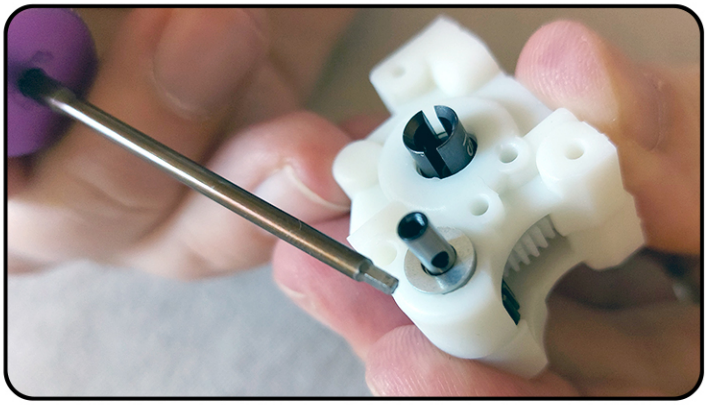
INSERT 3X6X2.5MM BEARINGS INTO TOP SHAFT HOLES. IF BEARINGS ARE TIGHT, USE A KNIFE TO REMOVE SOME MATERIAL FROM OUTER EDGE



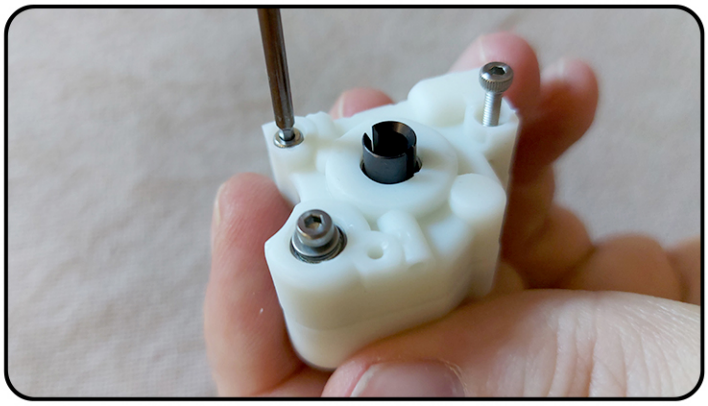
INSERT TOP SHAFT & GEAR INTO GEAR BOX LEFT SIDE. FIX TOP SHAFT WITH M2X6MM SCREW & M2 METAL WASHER



INSERT DIFF & ASSEMBLE GEARBOX HALVES TOGETHER

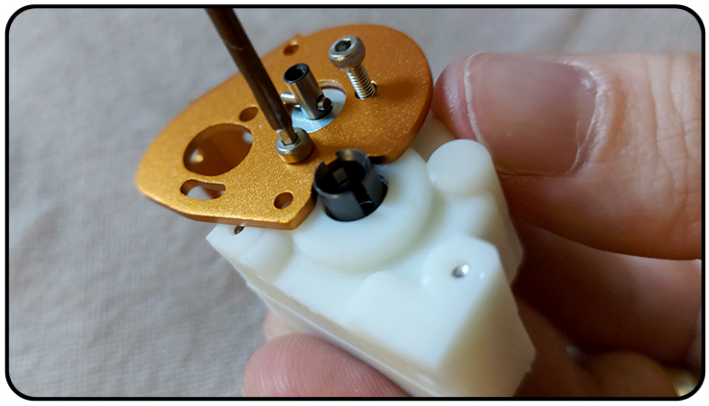


ADD M3 WASHER TO TOP SHAFT

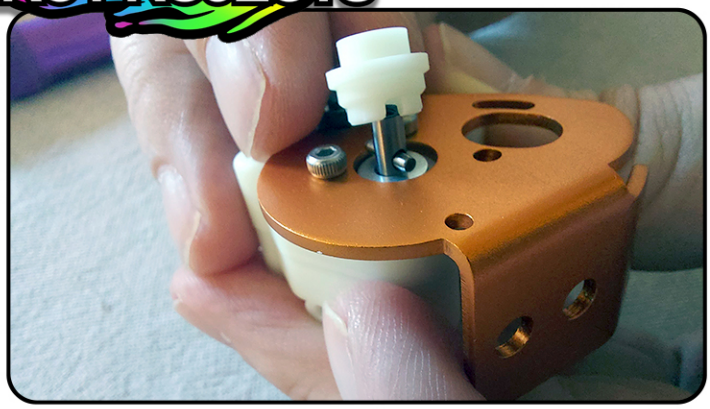


FIX GEARBOX TOGETHER WITH TWO M2X16MM SCREWS

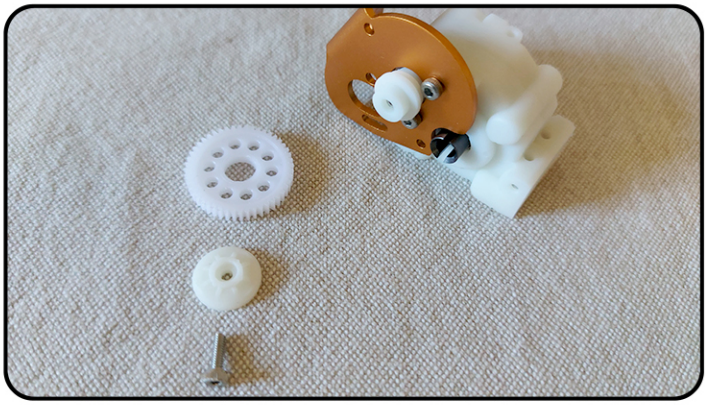
INSERT TOP SHAFT PIN USING SMALL PLIERS OF TWEEZERS



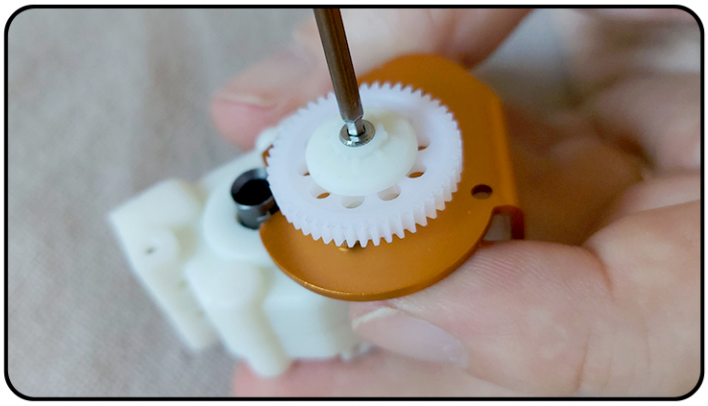
INSERT M2X6MM SCREW INTO HOLE SHOWN & INSERT M2X16MM SCREW INTO UPPER HOLE



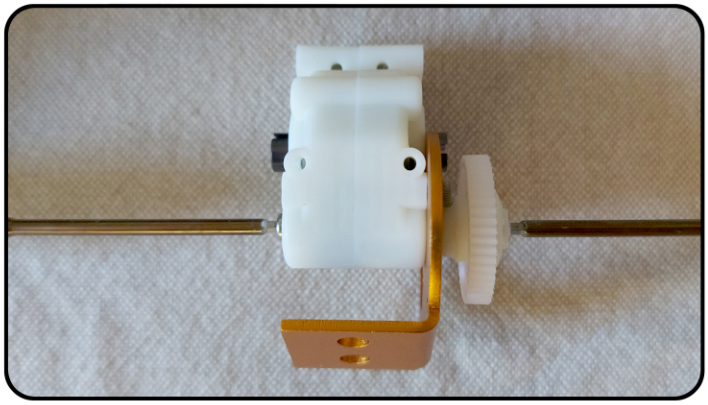
PUSH INNER ADAPTOR ONTO TOP SHAFT AND OVER PIN



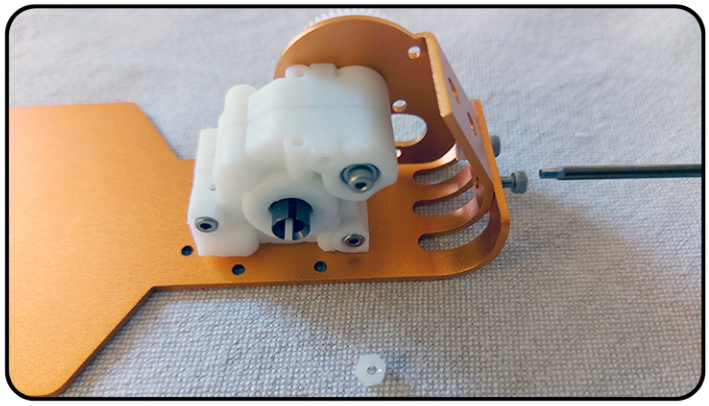
ASSEMBLE SPUR GEAR, OUTER ADAPTOR AND M2X6MM SCREW



ATTACH TO TOP SHAFT



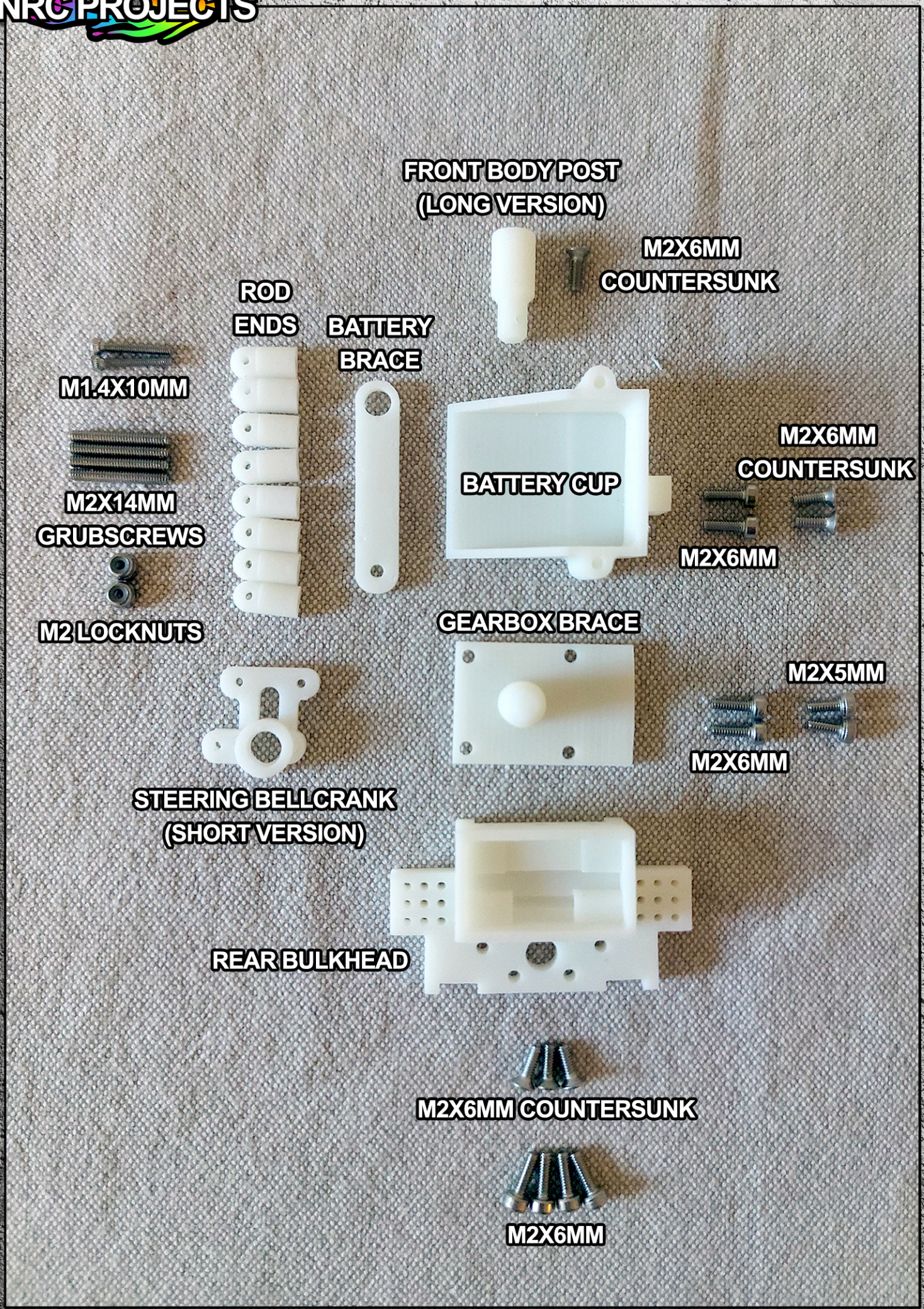
TIGHTEN TOP SHAFT END SCREWS AT SAME TIME.

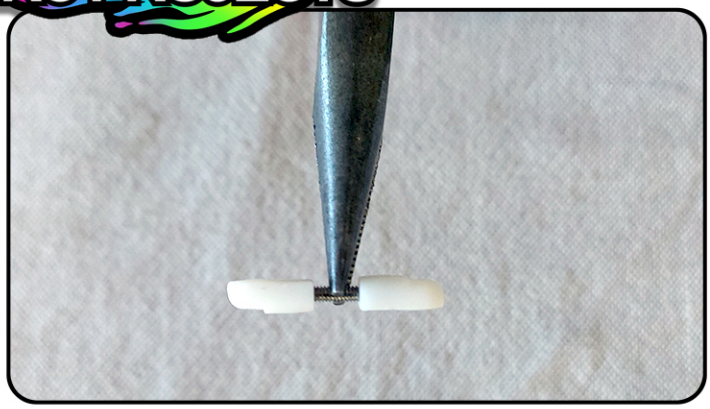


ATTACH COMPLETE GEARBOX TO MAIN CHASSIS PLATE. FIX LOOSELY WITH M2X5MM SCREWS & M2 NYLON NUTS. FULLY TIGHTEN WHEN REAR END IS 100% COMPLETE

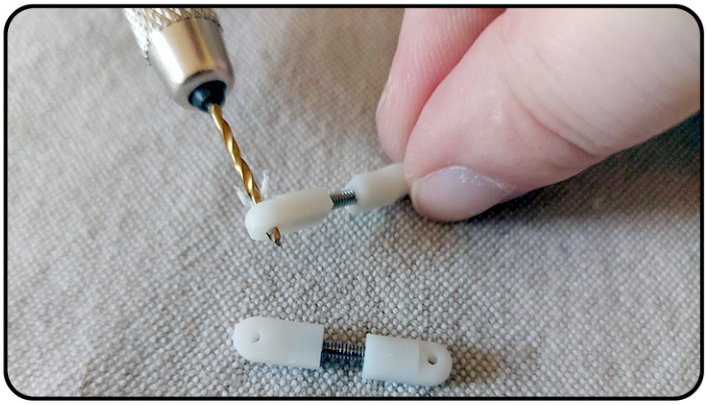
NRC PROJECTS

PARTS BAG 1

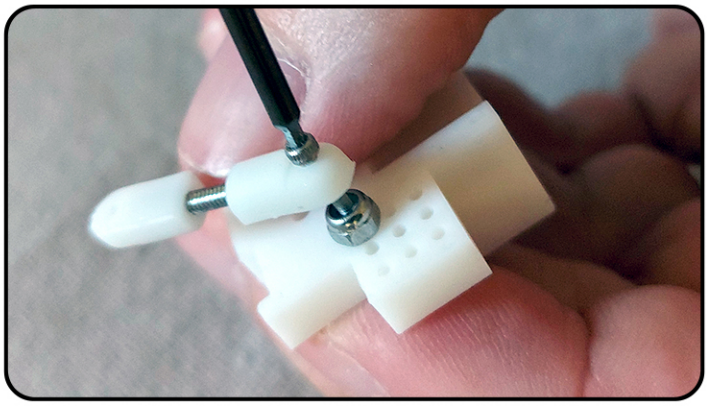




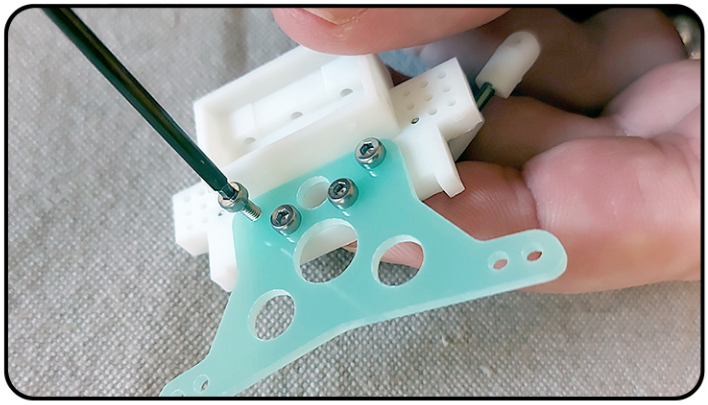
ASSEMBLE ROD ENDS ONTO M2X14MM GRUB SCREWS. LEAVE APPROX 5MM BETWEEN ROD ENDS



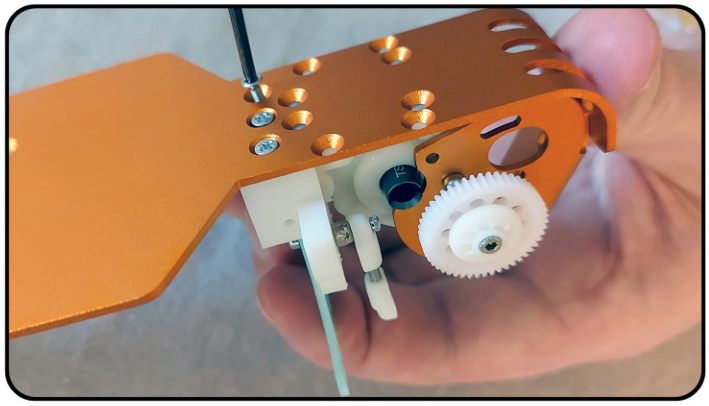
USE PIN DRILL TO MAKE 1.5MM DIAMETER HOLE IN BOTH ENDS OF EACH REAR TURNBUCKLE



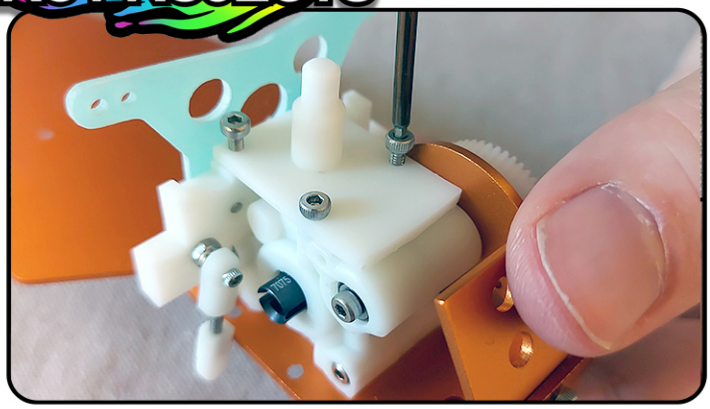
ATTACH TURNBUCKLES TO BACK OF REAR BULKHEAD USING M1.4X10MM SCREWS, USING M2 LOCKNUTS AS SPACERS



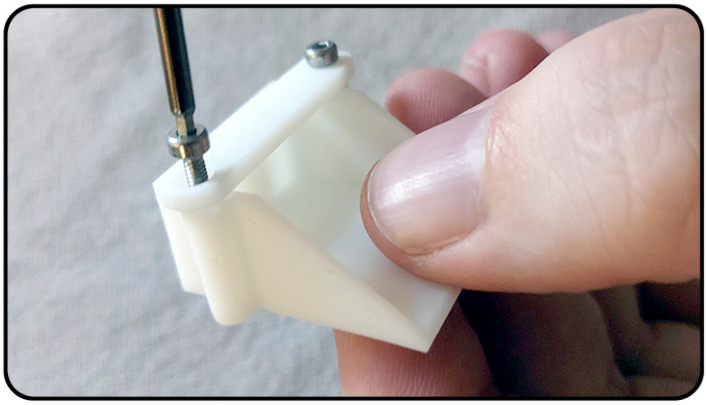
ATTACH REAR SHOCK TOWER (FROM PARTS BAG 4) TO REAR BULKHEAD USING MX6MM SCREWS



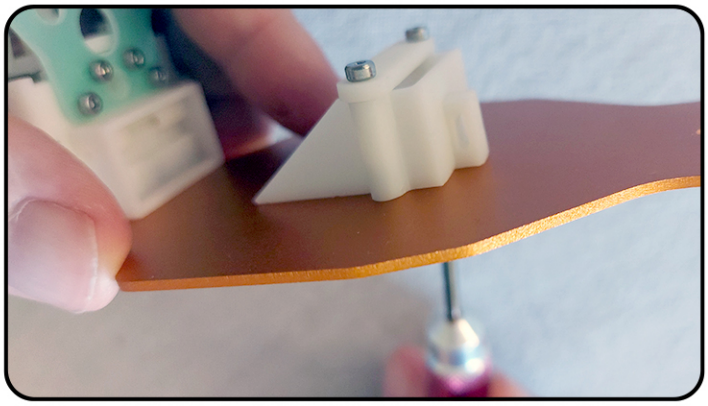
ATTACH REAR BULKHEAD TO MAIN CHASSIS PLATE USING M2X6MM COUNTERSUNK SCREWS



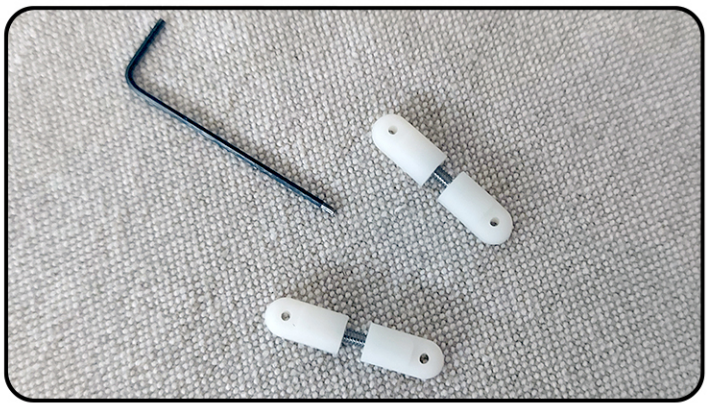
ATTACH GEARBOX BRACE TO REAR.
*USE MX6MM SCREWS AT FRONT, AND M2X5MM SCREWS AT REAR OF GEARBOX BRACE



ATTACH BATTERY BRACE TO BATTERY CUP. DO NOT TIGHTEN FULLY, YOU NEED TO BE ABLE TO TURN/ ROTATE BATTERY BRACE



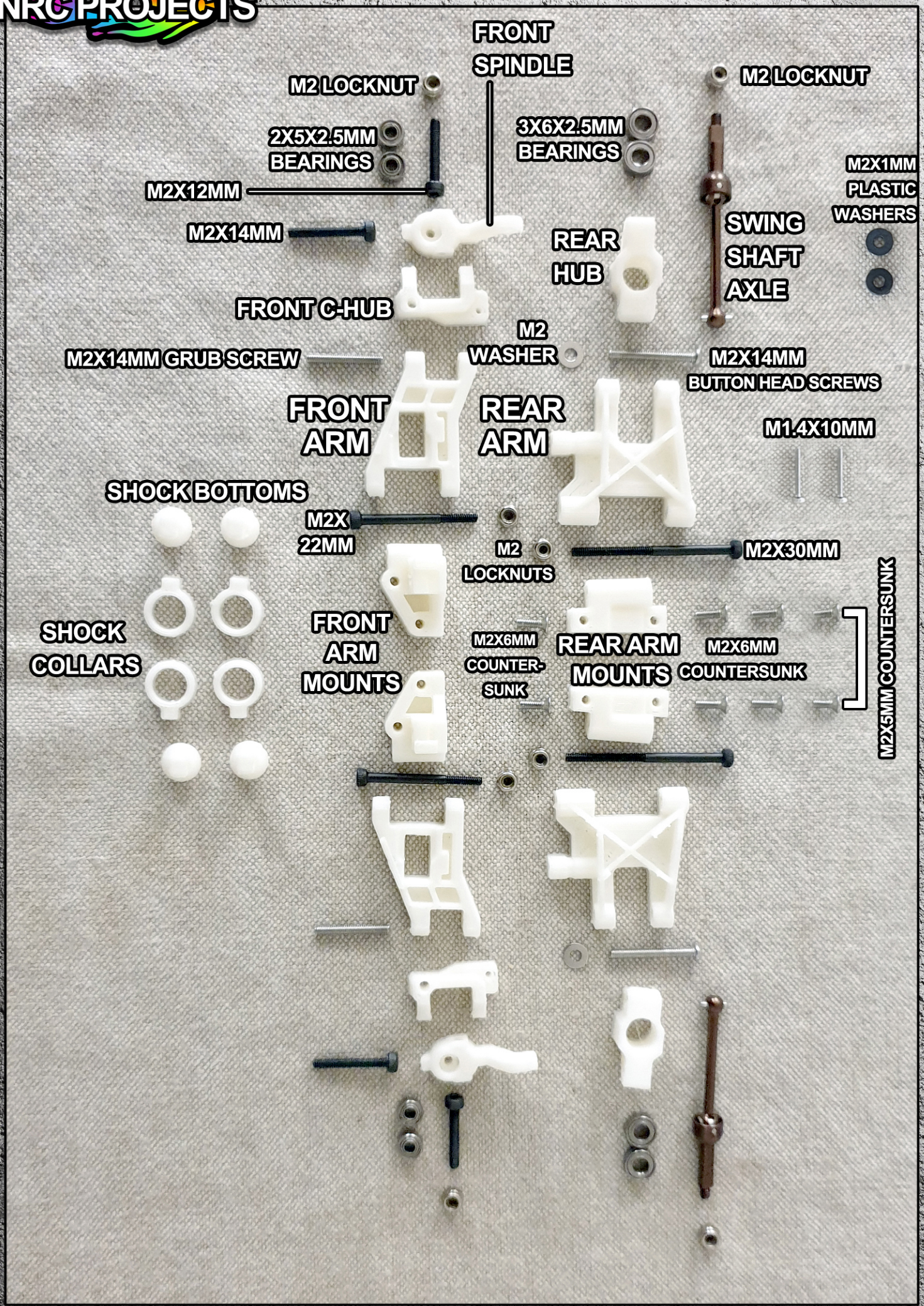
ATTACH ASSEMBLED BATTERY CUP TO MAIN CHASSIS USING M2.6MM COUNTERSUNK SCREWS



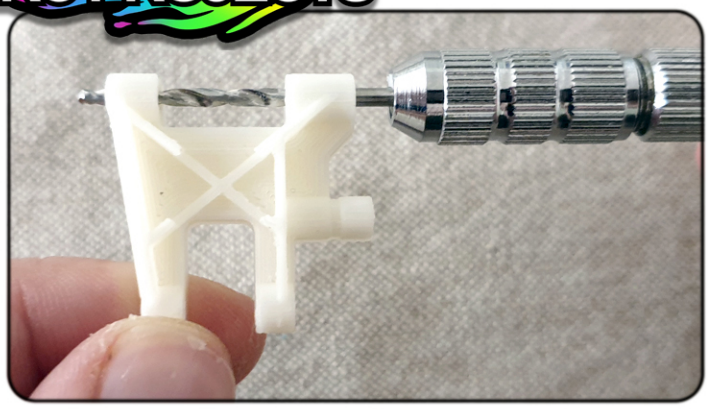
ASSEMBLE FRONT UPPER LINKS USING ROD ENDS AND M2X10MM GRUB SCREWS (USE THE SCREWS FROM PARTS BAG 4). LEAVE APPROX. 2.8MM GAP BETWEEN ROD ENDS.
*YOU WILL ATTACH THESE LATER IN THE USER MANUAL

NRC PROJECTS

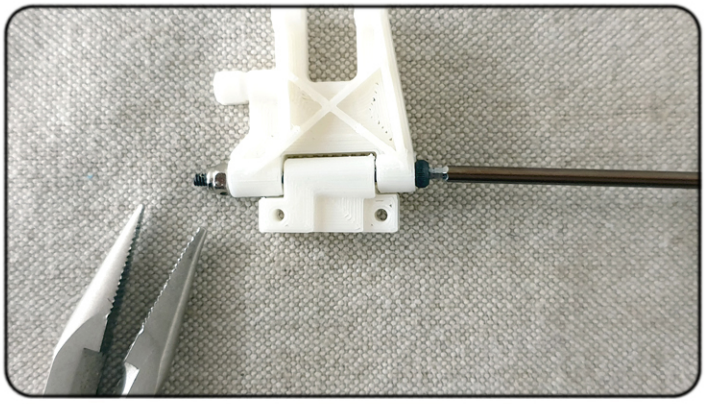
PARTS BAG 3



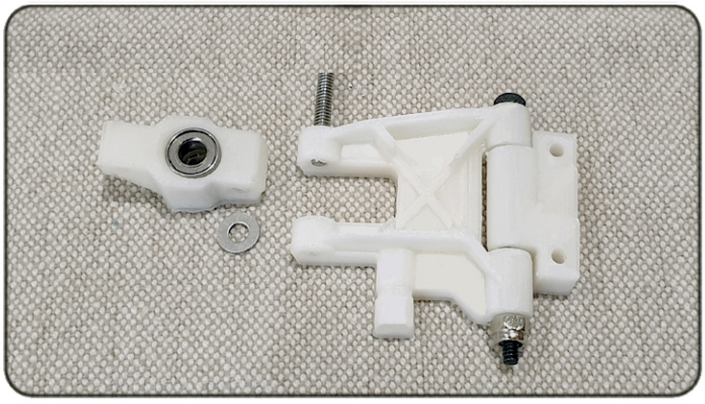
NRC PROJECTS



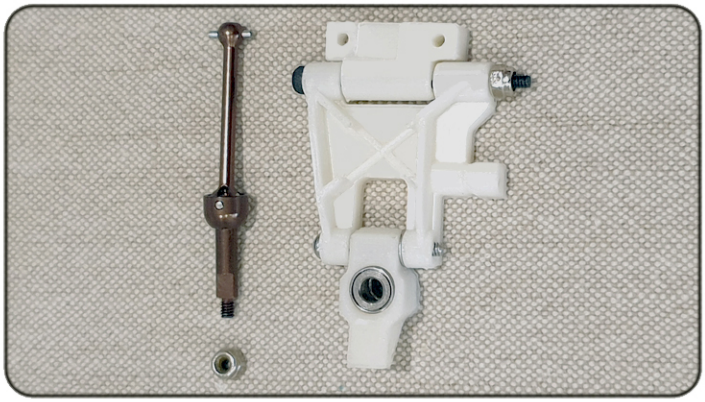
REAM REAR ARMS INNER HOLE WITH 2MM PIN DRILL BIT



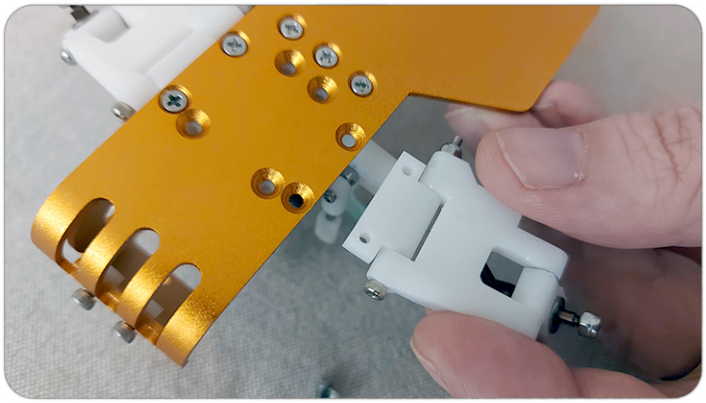
ATTACH REAR ARM & REAR ARM MOUNT WITH M2X30 & M2 LOCKNUT. TIGHTEN LOCKNUT S



ATTACH REAR HUB TO REAR ARM WITH M2X14MM SCREW & M2 WASHER

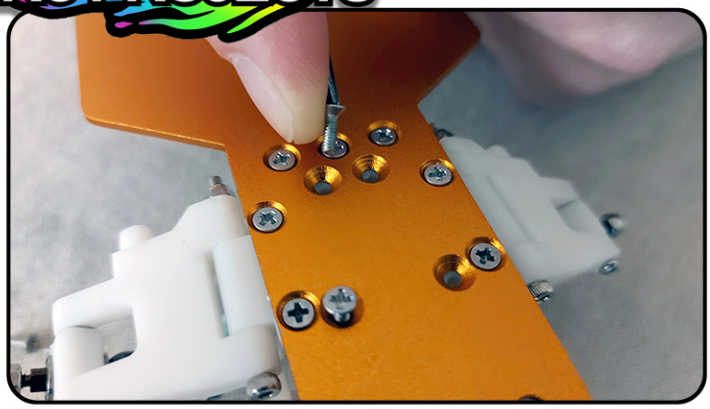


INSERT SWING SHAFT THROUGH REAR HUB & ATTACH M2 LOCKNUT

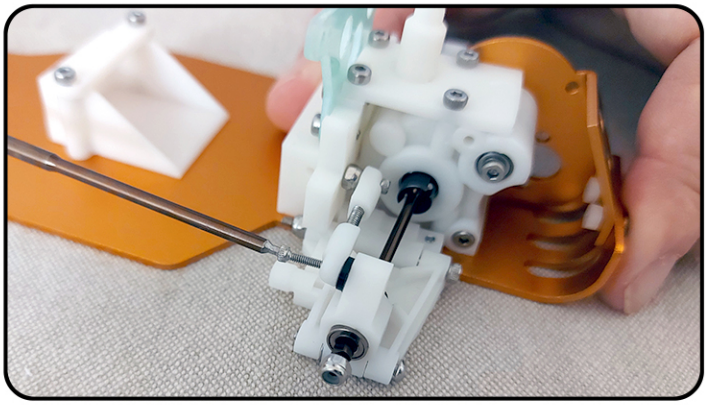


ATTACH REAR ARM ASSEMBLIES TO MAIN CHASSIS USING;
*M2X6MM AT FRONT, AND
*M2X5MM AT REAR OF ARM MOUNTS

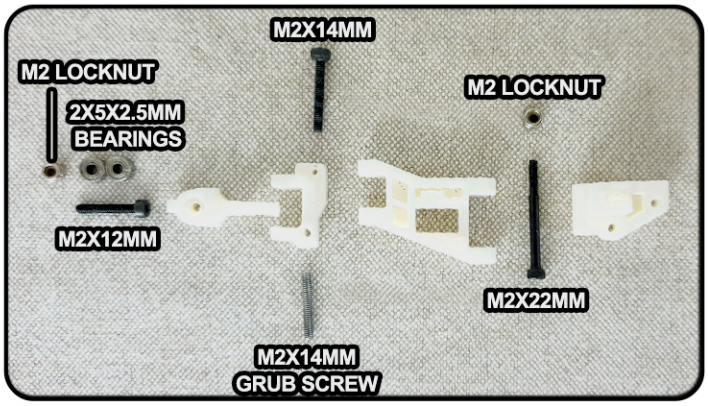
NRC PROJECTS



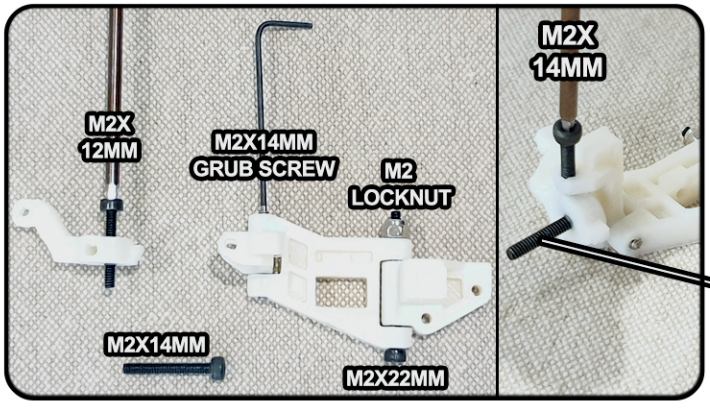
ATTACH GEARBOX TO MAIN CHASSIS PLATE WITH M2X6MM COUNTERSUNK SCREWS



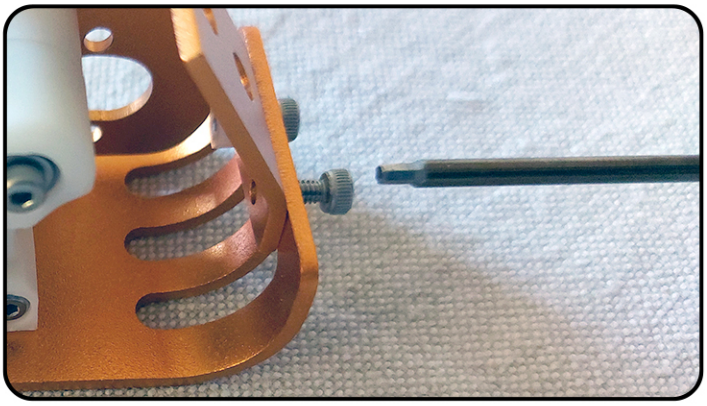
ATTACH OUTER ROD END TO REAR HUB WITH M1.4X10MM SCREWS AND BLACK M2 PLASTIC WASHER



PREPARE FRONT SUSPENSION ASSEMBLY



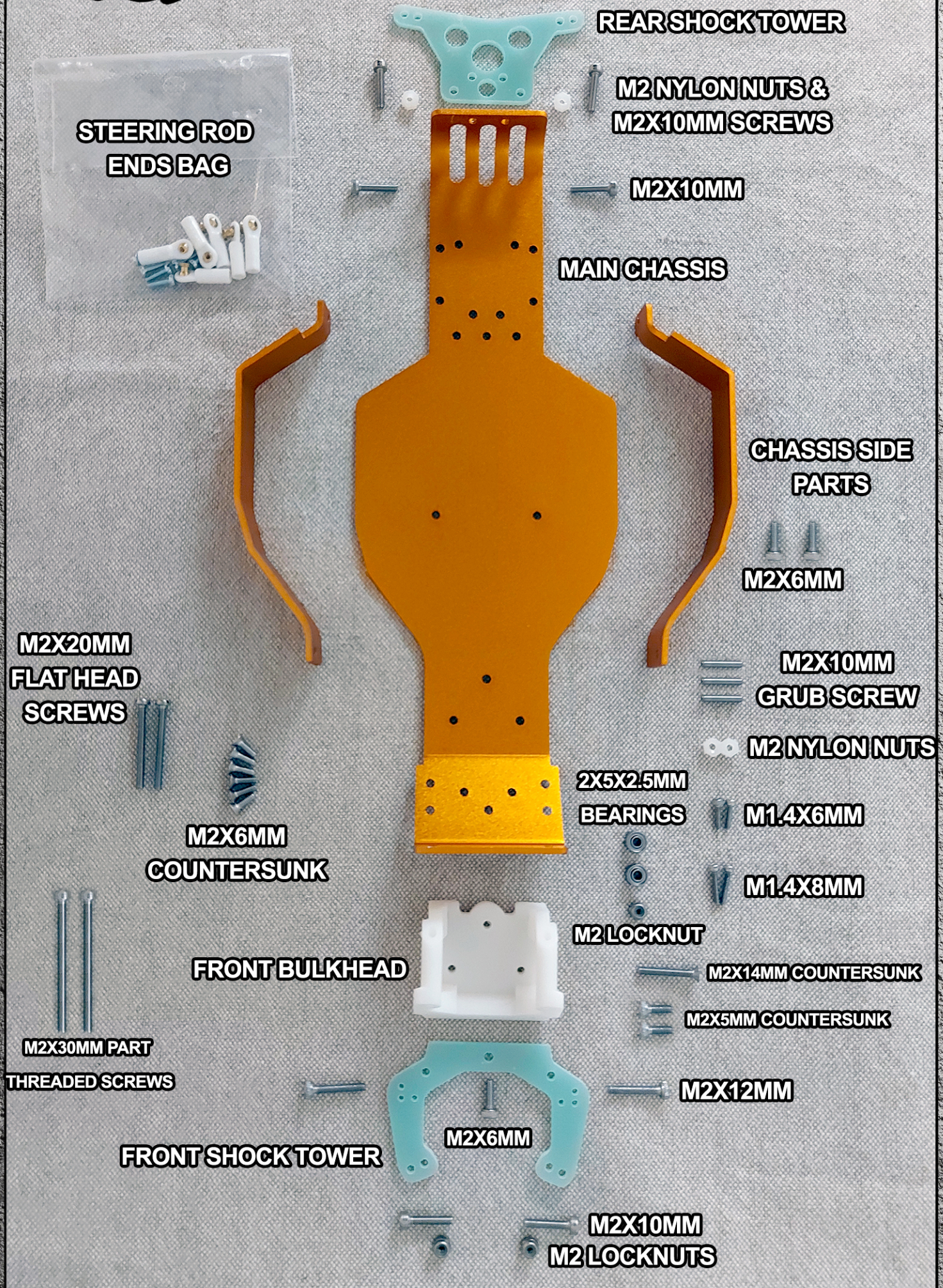
ASSEMBLE FRONT SUSPENSION USING SCREW GUIDE (LEFT). ADD BEARINGS & M2 LOCKNUT TO M2X12MM SCREW - WHEEL AXLE

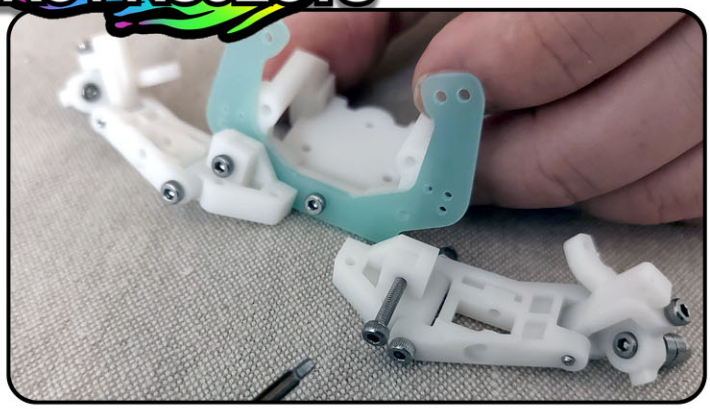


FULLY TIGHTEN REAR CHASSIS - MOTOR PLATE SCREWS & NYLON NUTS. BE CAREFUL NOT TO OVER-TIGHTEN NYLON NUTS

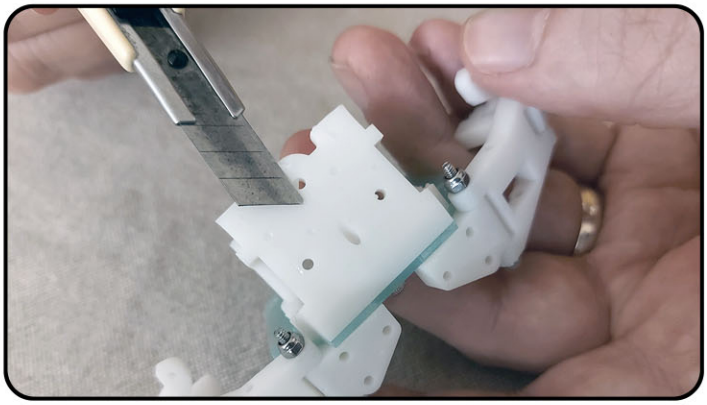
NRC PROJECTS

PARTS BAG 3

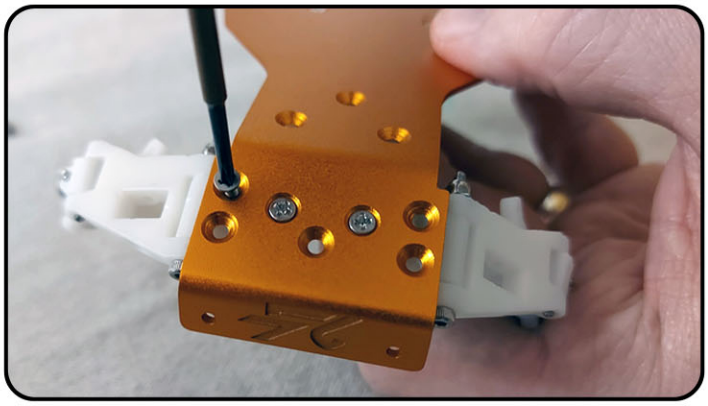




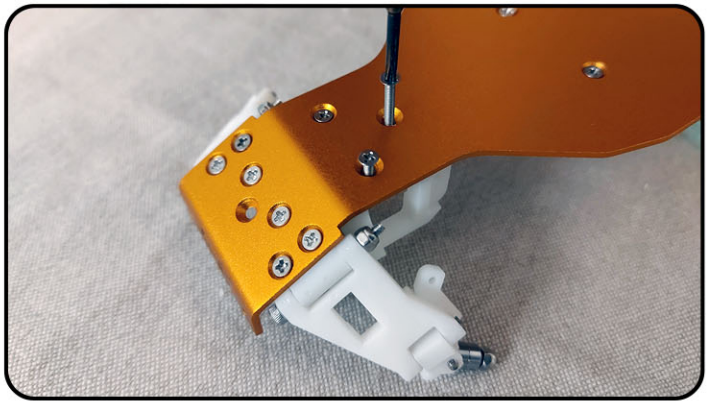
ASSEMBLE FRONT ARMS, SHOCK TOWER AND BULKHEAD TOGETHER USING M2X12MM SCREWS. USE M2X6MM SCREW IN CENTRE OF SHOCK TOWER



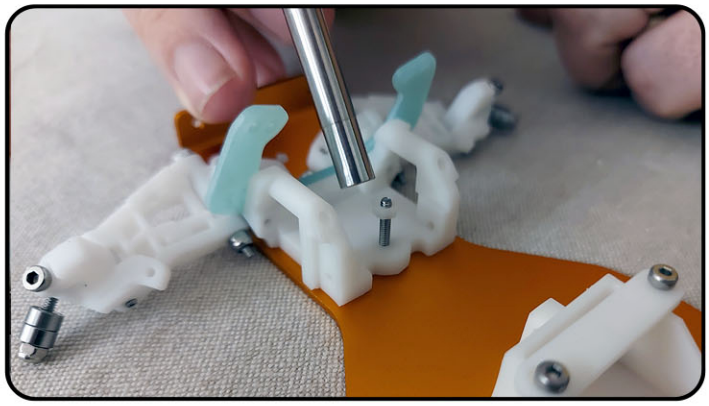
CUT OFF ANY SPRUES/ BUMPS FROM BOTTOM OF BULKHEAD



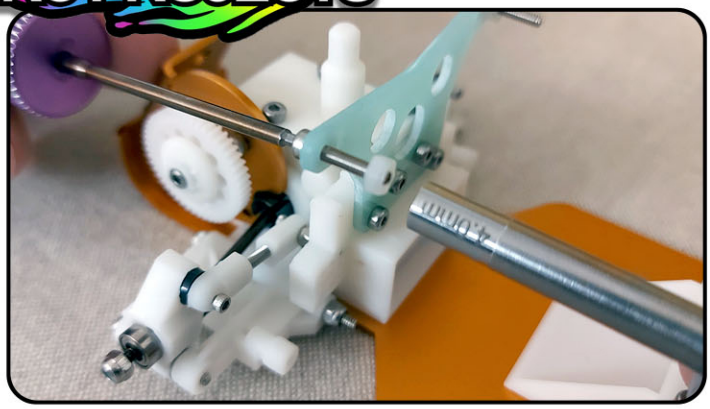
ATTACH ASSEMBLED FRONT END TO MAIN CHASSIS PLATE. USE M2X6MM COUNTERSUNK SCREWS



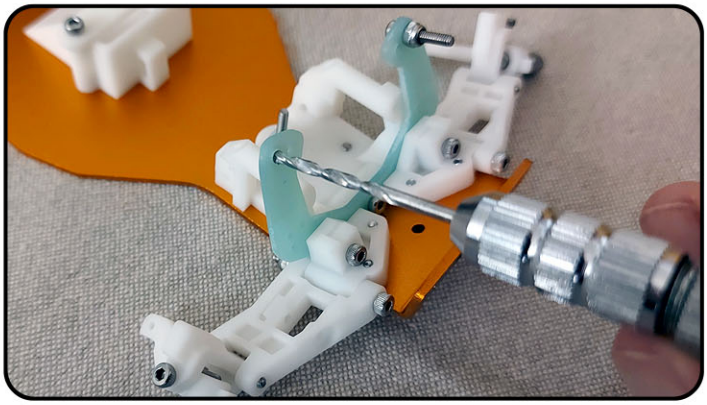
SECURE BULKHEAD TO CHASSIS USING M2X5MM COUNTERSUNK SCREWS AT SIDES AND M2X14MM COUNTERSUNK SCREW IN THE CENTRE



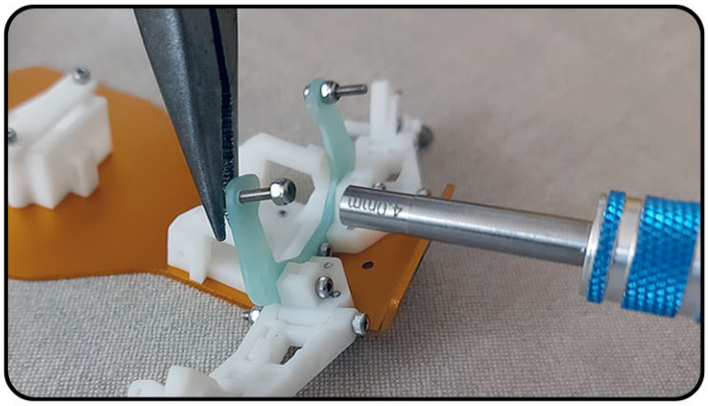
ATTACH M2 NYLON NUT TO M2X14MM COUNTERSUNK SCREW AND TIGHTEN DOWN TO THE BULKHEAD



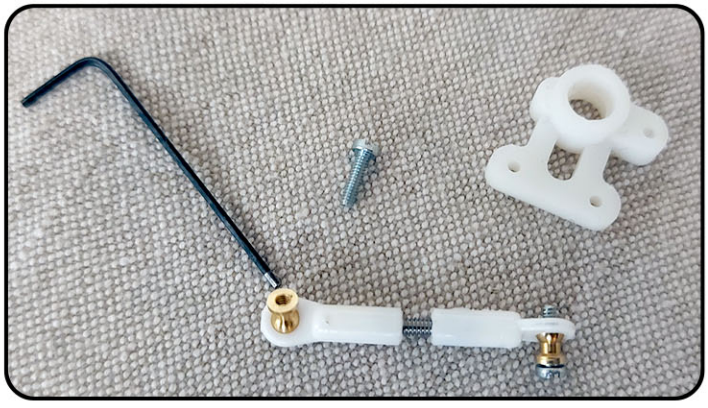
ATTACH M2X10MM & M2 NYLON NUT TO REAR SHOCK TOWER



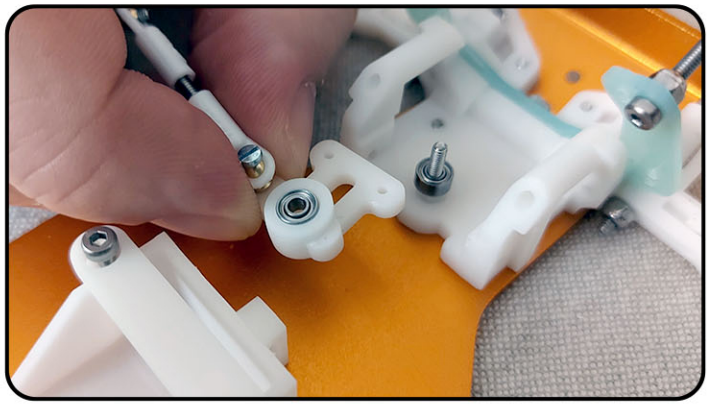
USE PIN DRILL & M2 DRILL BIT TO ENLARGE TOP HOLES ON FRONT SHOCK TOWER



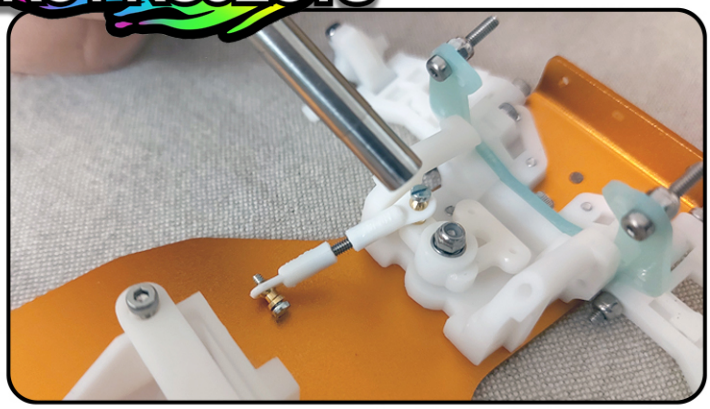
ATTACH M2X10MM SCREWS AND M2 LOCKNUTS TO UPPER SHOCK TOWER HOLES



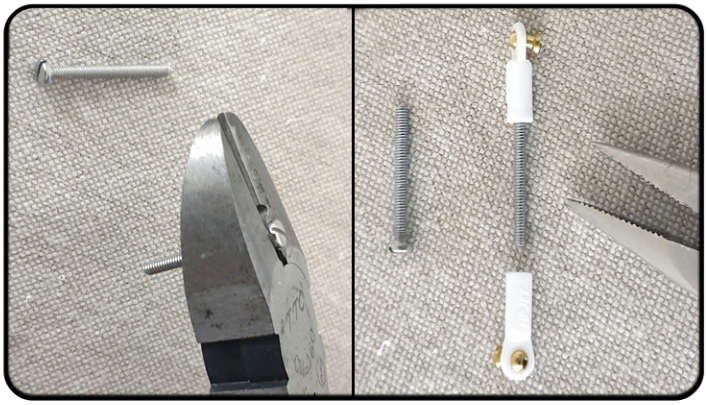
ASSEMBLE STEERING ROD ENDS TO M2X10MM GRUB SCREW. LEAVE APPROX 3MM GAP BETWEEN ROD ENDS



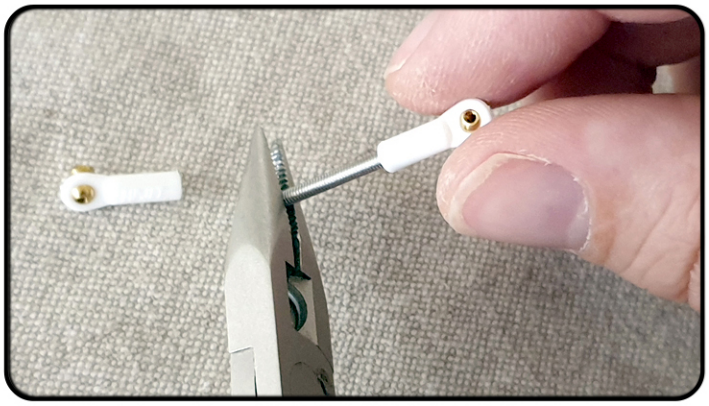
INSERT 2X5X2.5MM BEARINGS INTO STEERING BELLCRANK AND ONTO M2X14MM COUNTERSUNK SCREW. ATTACH TURNBUCKLE TO BELLCRANK USING FLAT HEAD SCREW (INCLUDED IN ROD ENDS BAG)



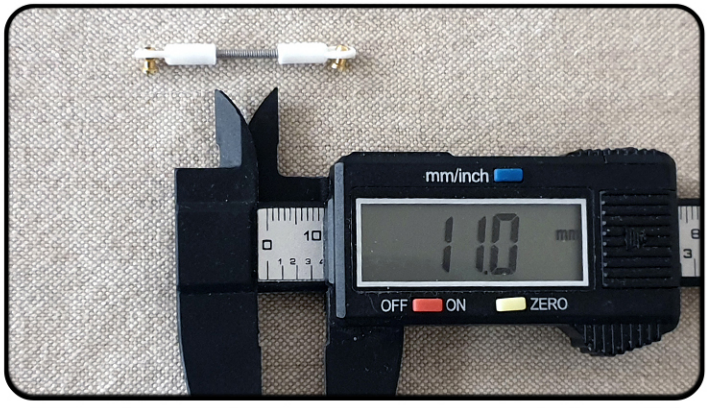
PUSH BELLCRANK DOWN OVER M2X14MM COUNTERSUNK SCREW, ATTACH M2 LOCKNUT TO SECURE



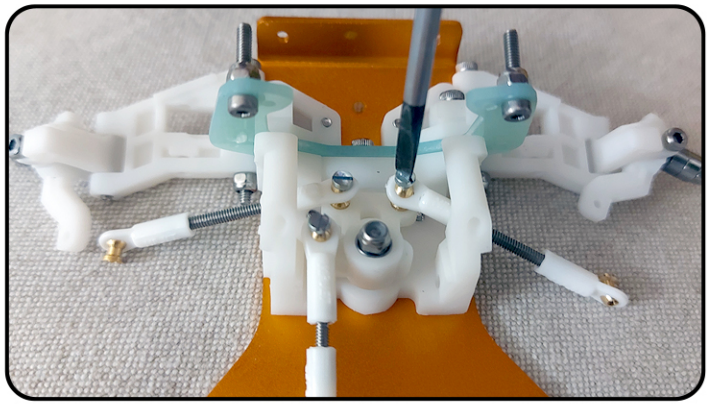
REMOVE HEAD FROM M2X20MM FLAT HEAD SCREW AS CLOSE TO THE TOP AS POSSIBLE. REPEAT ASSEMBLY OF ROD CONNECTORS(X2)



ATTACH BOTH ROD ENDS TO LEFT & RIGHT STEERING CONNECTORS

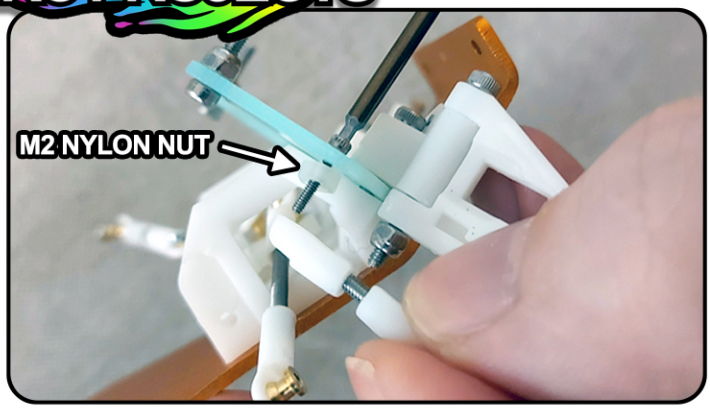


LEAVE APPROX. 11MM BETWEEN ROD ENDS

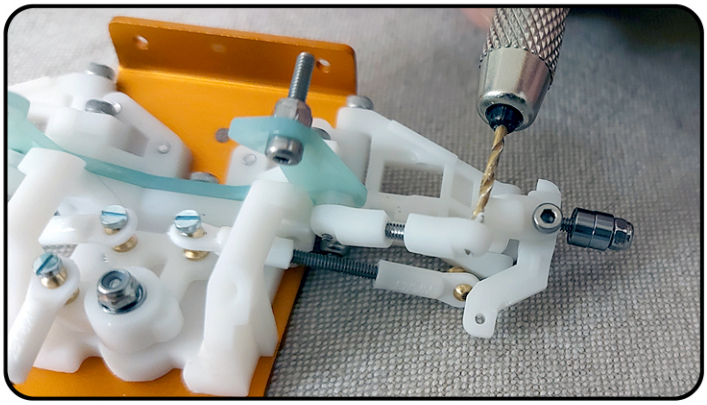


ATTACH TURNBUCKLES TO BELLCRANK USING FLAT HEAD SCREWS (INCLUDED IN ROD ENDS BAG)

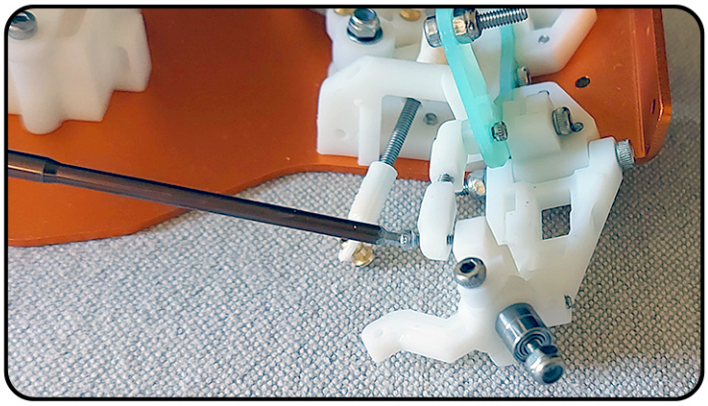
NRC PROJECTS



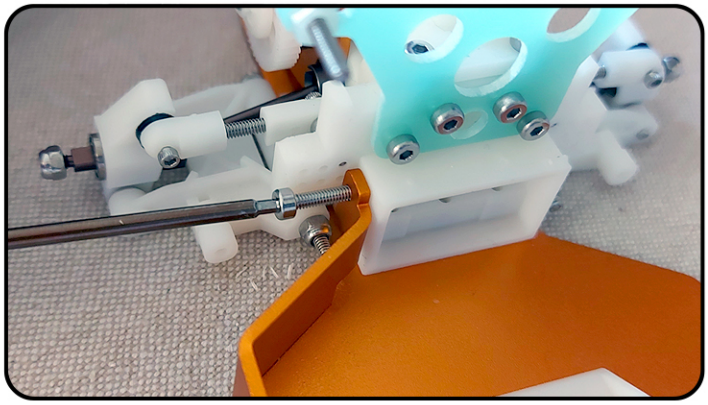
ATTACH UPPER TURNBUCKLES (ASSEMBLED DURING PARTS BAG 2) USE M1.4X8MM SCREW AND M2 NYLON NUT (AS A SPACER) & SCREW INTO INNER ROD END.



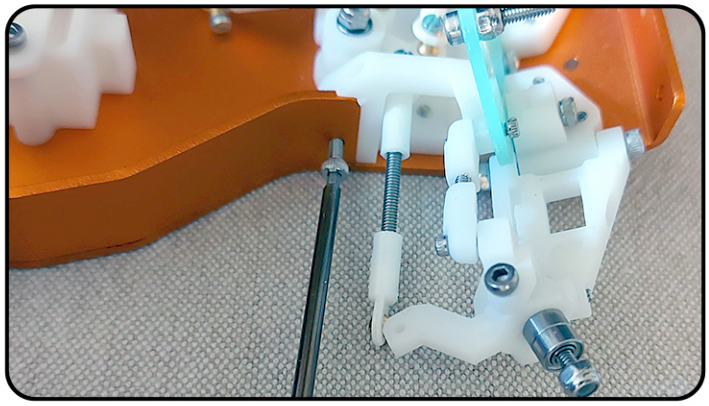
USE PIN DRILL & M1.5 DRILL BIT TO ENLARGE HOLE OF OUTER ROD END



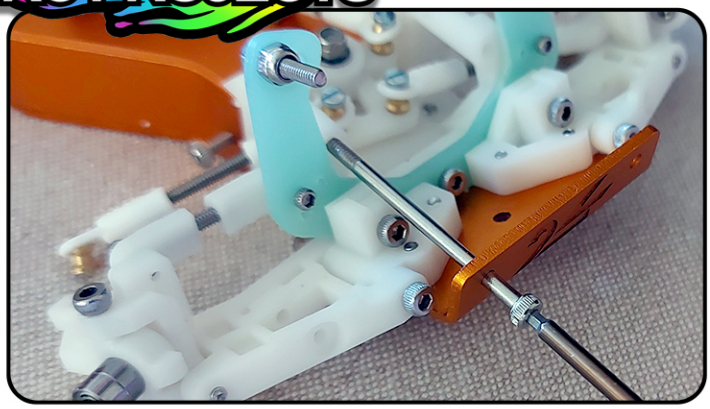
ATTACH OUTER ROD END TO FRONT C-HUBS WITH M1.4X6MM SCREWS



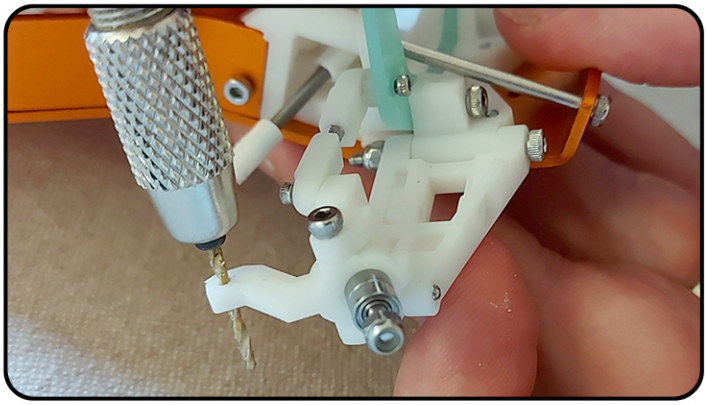
ATTACH CHASSIS SIDE PARTS TO REAR BULKHEAD WITH M2X10MM SCREWS



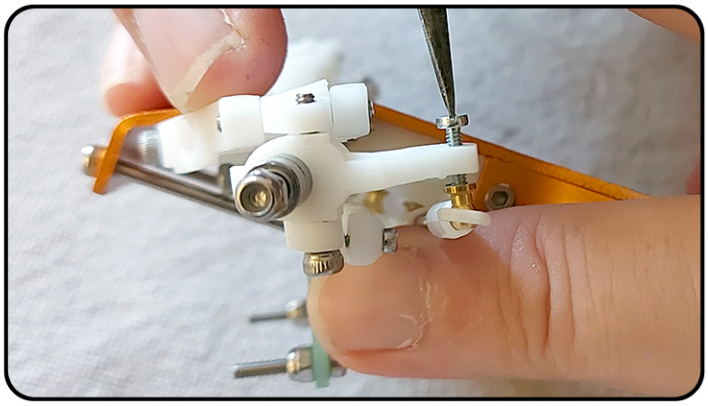
USE M2X6MM SCREWS TO ATTACH ATTACH CHASSIS SIDE PARTS TO FRONT BULKHEAD



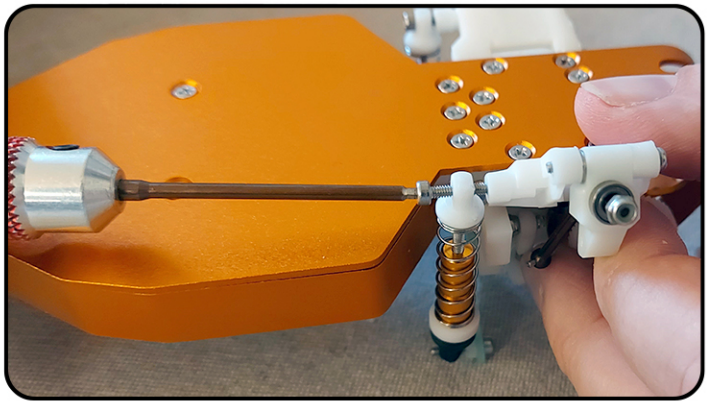
INSERT AND SCREW IN M2X30MM PARTIALLY THREADED SCREW



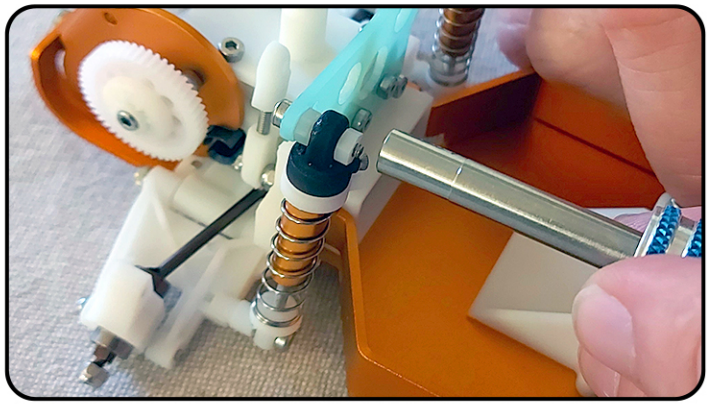
USE PIN DRILL & M1.5 DRILL BIT TO ENLARGE HOLE OF SPINDLE OUTER HOLE



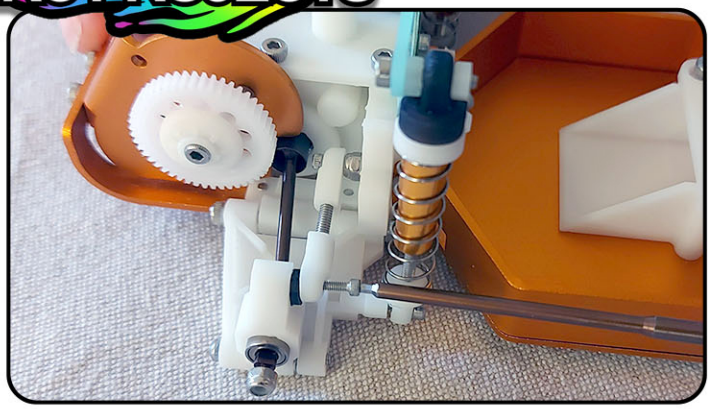
ATTACH OUTER ROD END TO SPINDLE OUTER HOLE WITH FLAT HEAD SCREWS (INCLUDED IN ROD END BAG)



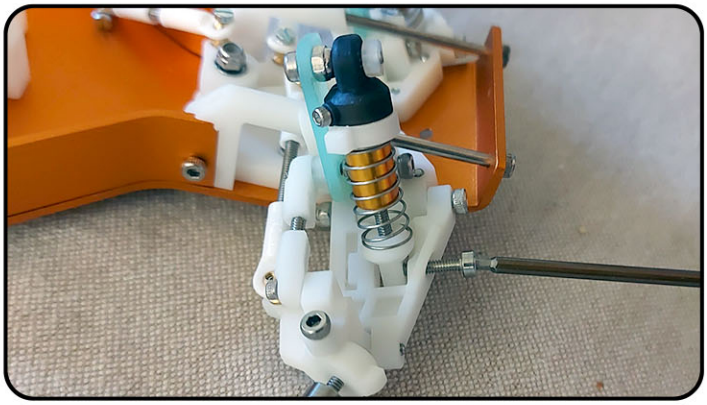
ATTACH LOWER REAR SHOCKS TO REAR ARM WITH M1X10MM SCREWS. *SEE PARTS BAG 5 STAGE FOR BUILDING SHOCKS



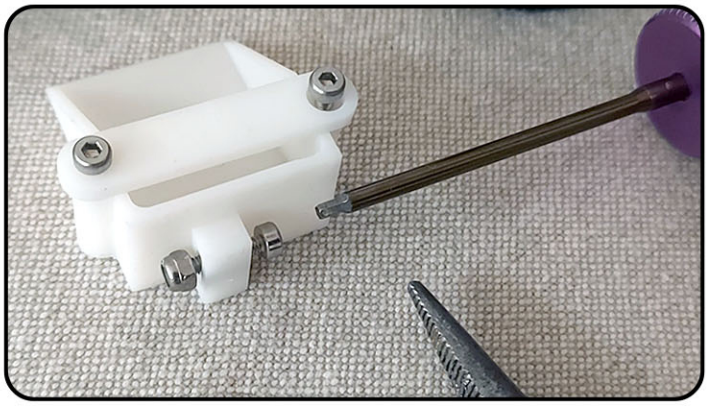
FIX UPPER REAR SHOCK TO SHOCK TOWER WITH M2 NYLON NUTS



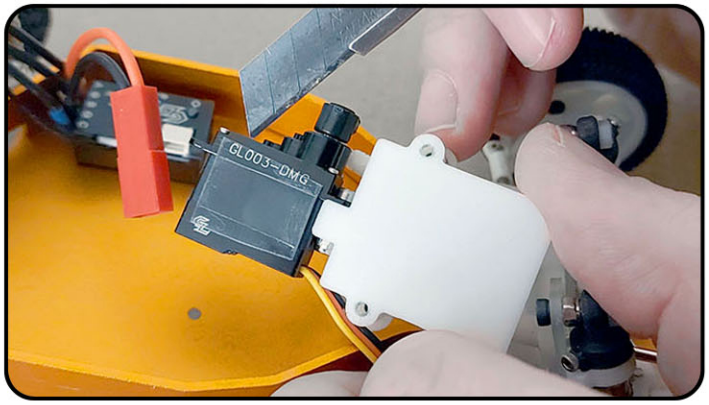
ATTACH REAR LINKS TO REAR HUBS USING M1.4X10MM SCREWS (FROM PARTS BAG 3). USE BLACK M2 BLACK PLASTIC WASHERS AS A SPACER



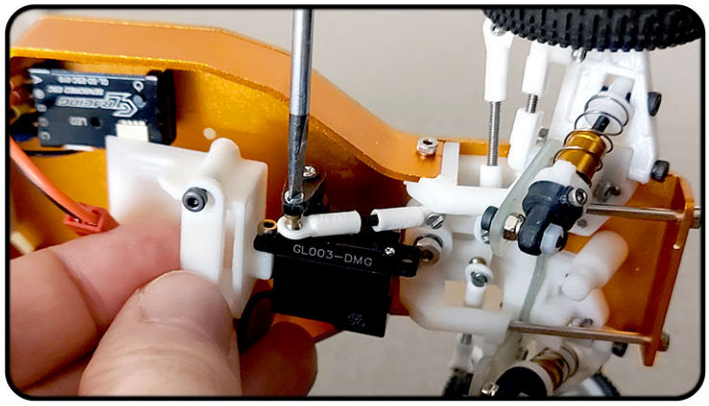
ATTACH FRONT SHOCKS (SEE PARTS BAG 5) TO ARMS USING M2X10MM SCREWS.
FIX UPPER SHOCK TO FRONT SHOCK TOWER WITH M2 NYLON NUT



TO ATTACH SERVO, REMOVE BATTERY CUP AND USE M2X10MM SCREW & M2 LOCKNUT TO CONNECT REAR MOUNTING LUG OF SERVO



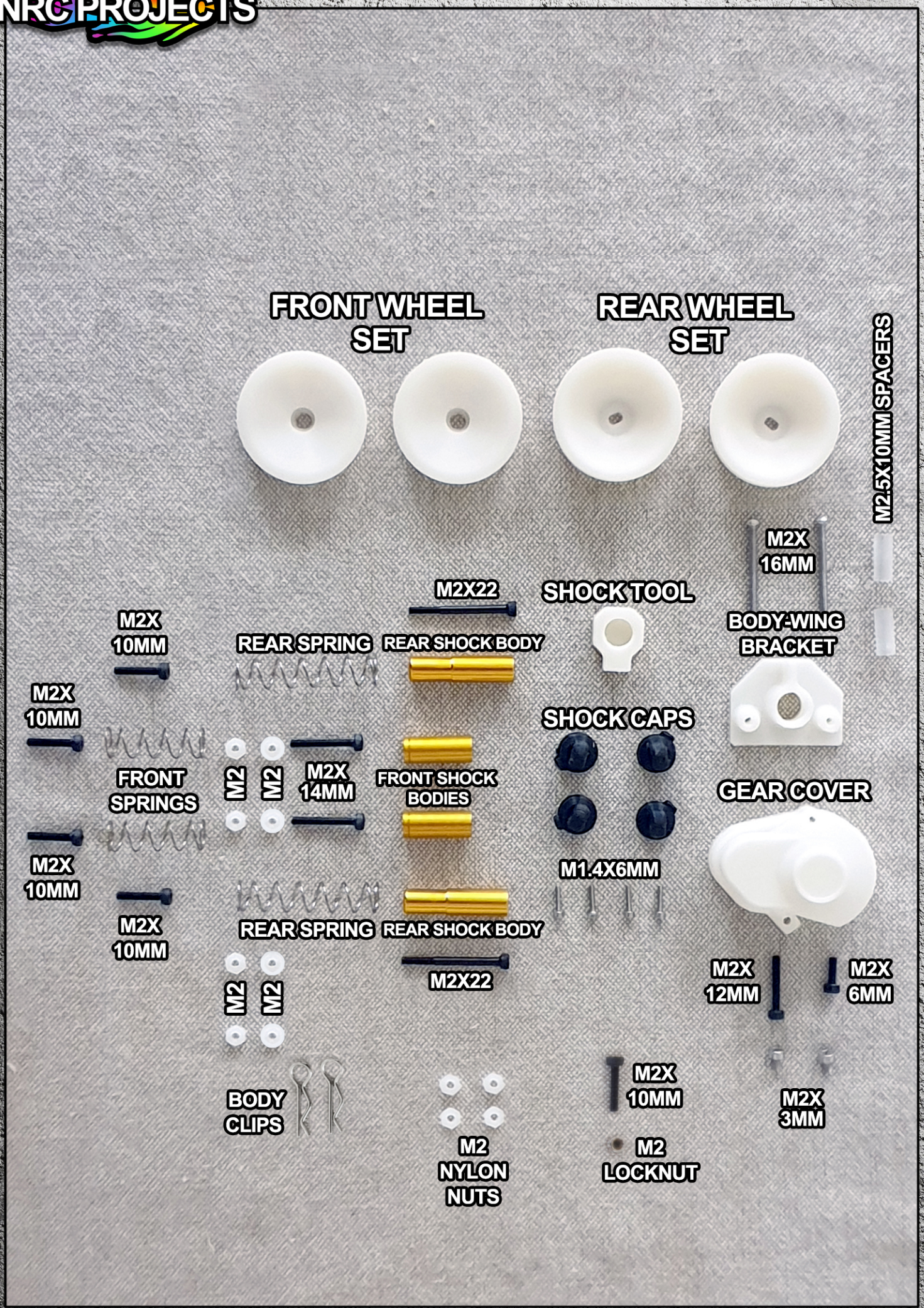
FIX SERVO TO BATTERY CUP, USE DOUBLE SIDED/ SERVO TAPE WHEN ATTACHING TO CHASSIS



RE-ATTACH STEERING ROD & SERVO HORN . USE ORIGINAL M2x6MM COUNTERSUNK SCREWS TO ATTACH BATTERY CUP-SERVO ASSEMBLY TO CHASSIS.

NRC PROJECTS

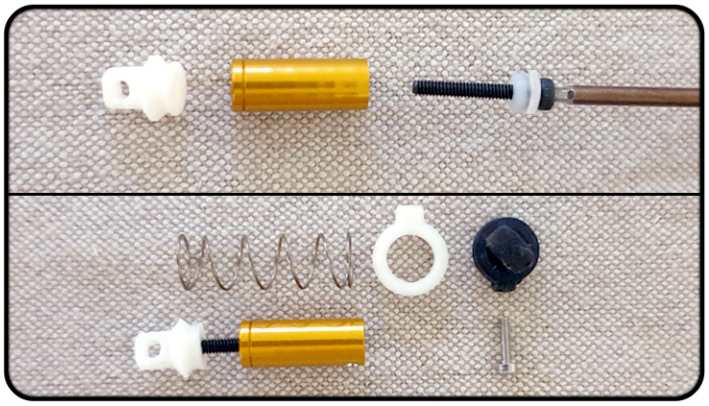
PARTS BAG 5



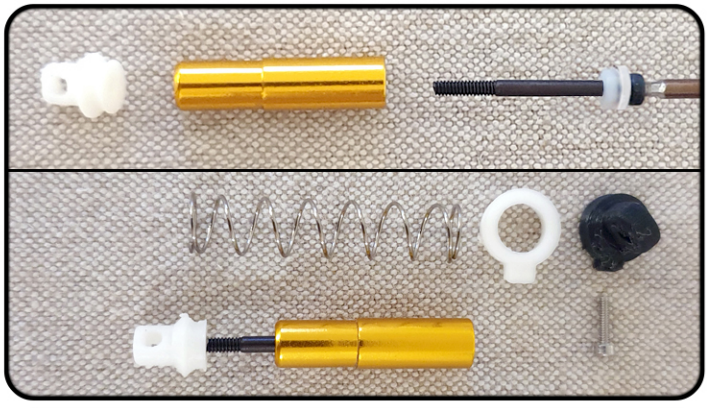
NRC PROJECTS

INSERT SHOCK BODY INTO SHOCK TOOL AND USE 1.5MM DRILL BIT & PIN DRILL TO MARK DRILLING POINT

USE 1.5MM DRILL BIT & PIN DRILL TO MAKE A HOLE IN SHOCK BODY (ON ONE SIDE OF SHOCK BODY)
**HOLE MUST BE 1.5MM FROM END OF SHOCK BODY

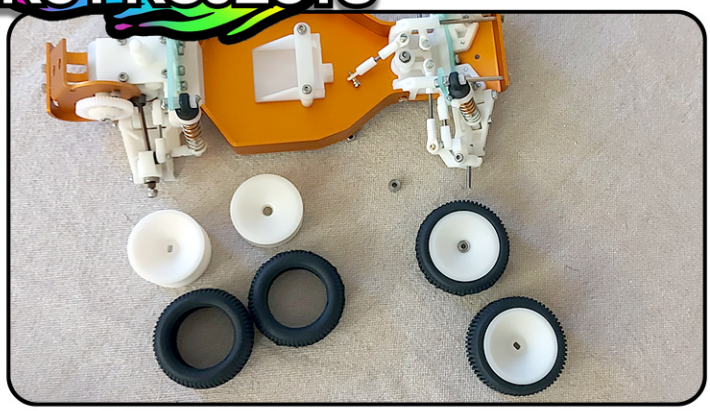


FRONT SHHOCKS-
ATTACH WHITE M2 PLASTIC WASHER & M2 NYLON NUT ONTO M2X14MM SCREW, PUSH THOUGH SHOCK BODY & SCREW INTO SHOCK BOTTOM
**M2X14MM SCREWS COULD BE PARTIALLY THREADED

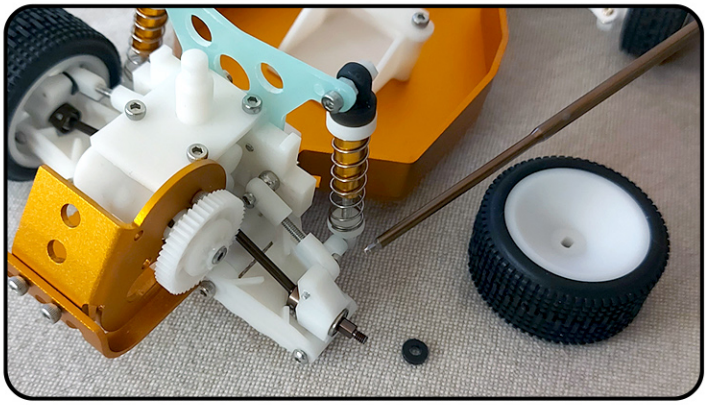


REAR SHOCKS-
ATTACH WHITE M2 PLASTIC WASHER & M2 NYLON NUT ONTO M2X22MM SCREW, PUSH THOUGH SHOCK BODY & SCREW INTO SHOCK BOTTOM
**M2X22MM SCREWS COULD BE PARTIALLY THREADED

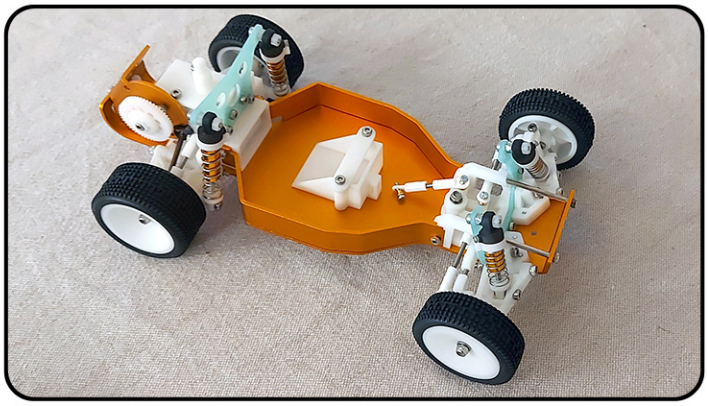
COMPLETE SHOCK ASSEMBLIES USING M1.4MMX6 SCREW. SCREW THROUGH SHOCK CAP HOLE & DRILLED HOLE IN SHOCK BODY



ASSEMBLE WHEELS AND TYRES, USING BEARINGS ON FRONT WHEELS. FIX ONTO AXLES WITH M2 LOCKNUTS

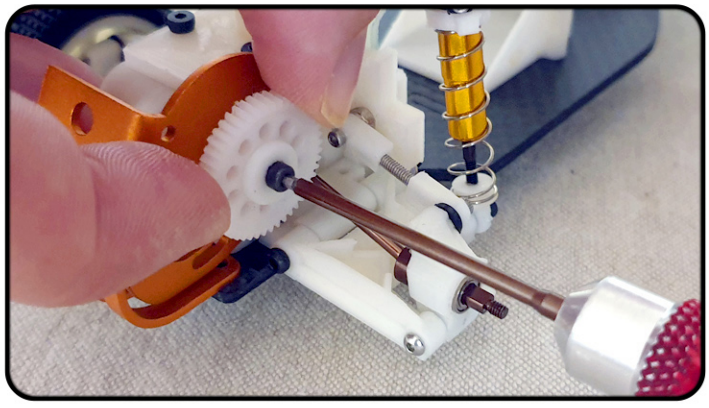


**PLEASE NOTE!
IF REAR WHEELS ARE RUBBING ON OUTER ROD ENDS, - REMOVE M2 BLACK WASHER AND RE-ASSEMBLE



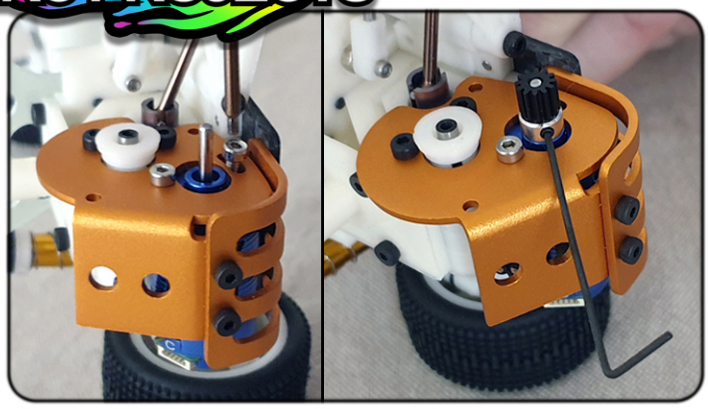
CONGRATULATIONS!
THE MAIN ROLLING CHASSIS IS COMPLETE!
THE NEXT FEW STEPS SHOW MOTOR AND BODY FITTING. THE CAR SHOWN IS THE CARBON CHASSIS CAR, BUT THE STEPS ARE THE SAME

NEXT - FITTING MOTOR AND SETTING GEAR MESH. USE ONLY 64DP PINIONS RECOMMENDATION IS 12T OR 13T



HOLD SPUR GEAR FIRMLY AGAINST INNER SPUR ADAPTOR AND REMOVE M2X6MM SCREW

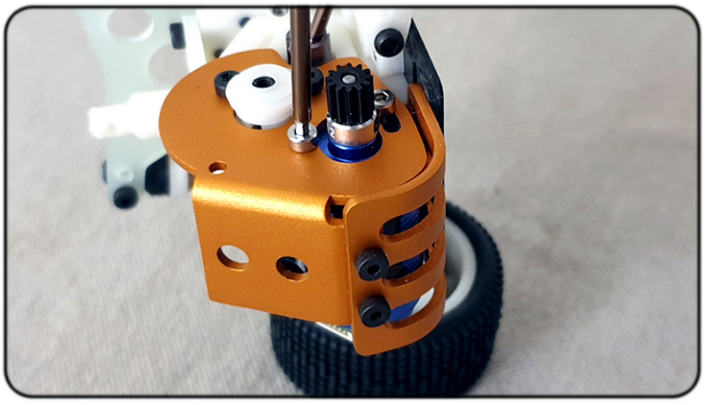
NRC PROJECTS



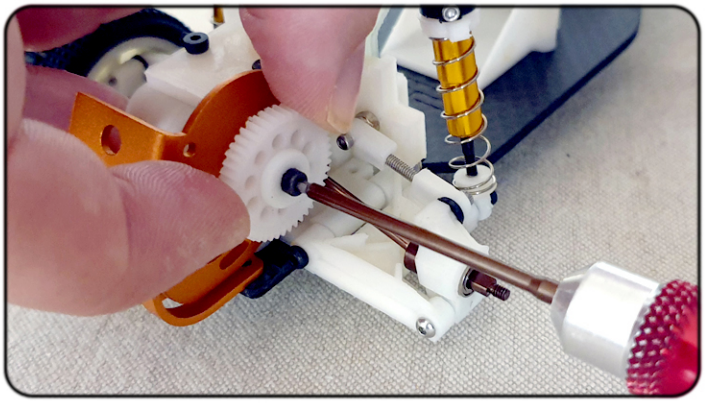
LOOSLY FIX MOTOR TO MOTOR PLATE WITH M2X3MM SCREWS. THEN ATTACH PINION TO MOTOR SHAFT. LEAVE A MINIMAL GAP BETWEEN MOTOR AND PINION

**SPUR GEAR WILL BE REMOVED/ REATTACHED TOGETHER WITH INNER SPUR GEAR ADAPTOR

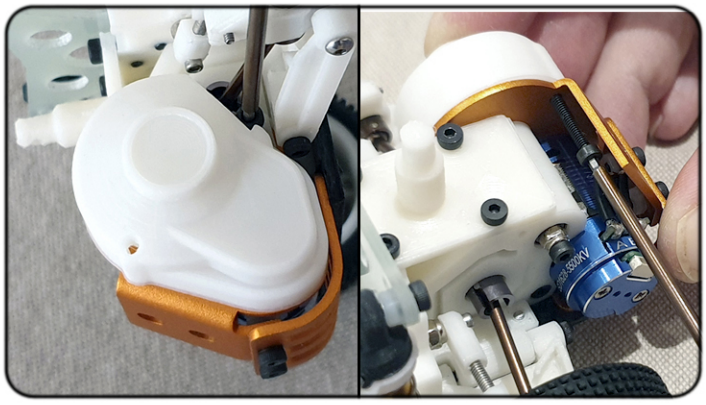
LOOSLY RE-FIT SPUR GEAR AND SET GEAR MESH WITH A SMALL AMOUNT OF MOVEMENT BETWEEN SPUR & PINION. THEN TIGHTEN BOTTOM SCREW



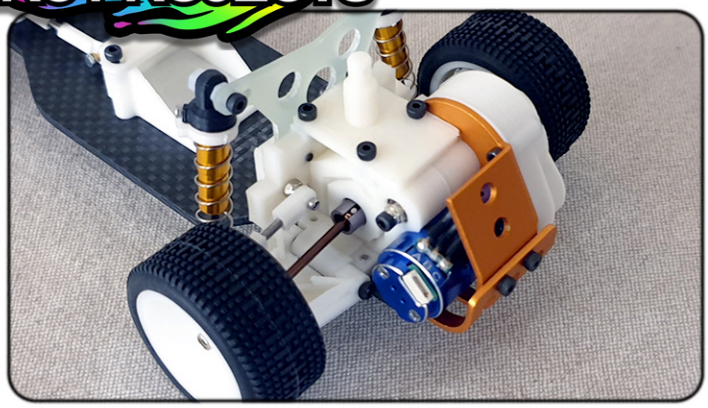
REMOVE SPUR GEAR AGAIN AND TIGHTEN UPPER SCREW.



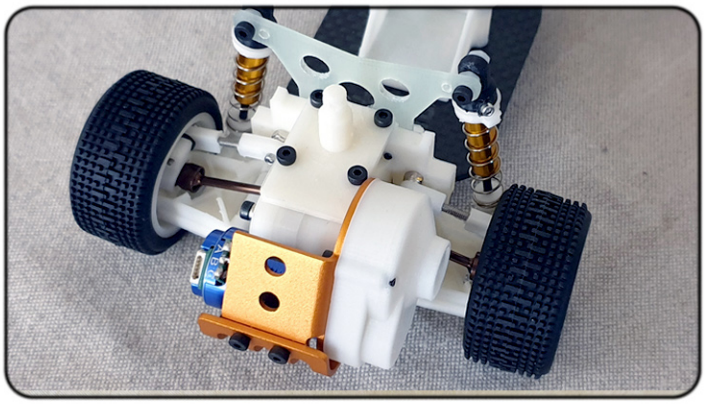
RE-ATTACH SPUR GEAR (& M3 WHITE WASHER) AND FULLY TIGHTEN M2X6MM SCREW WHILST FIRMLY HOLDING THE SPURGEAR AGAINST INNER SPUR ADAPTOR

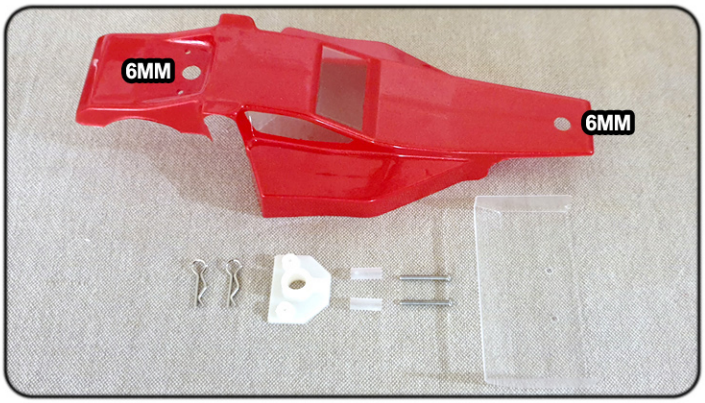


ATTACH GEAR COVER WITH M2X6MM SCREW (LEFT PHOTO) AND M2X12MM SCREW (RIGHT PHOTO)

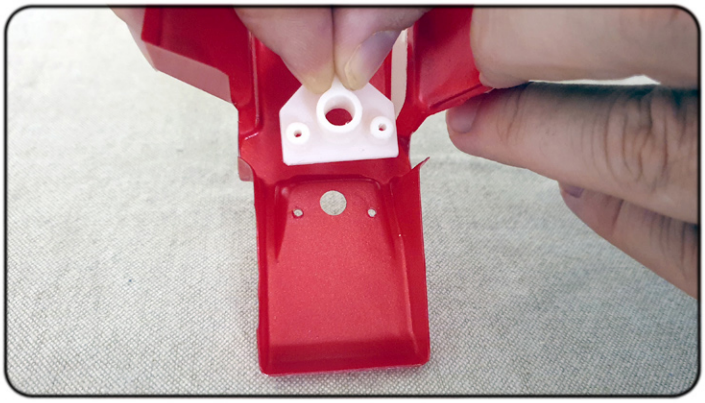


FINISHED MOTOR MOUNTING, SETTING GEAR MESH & FITTING GEAR COVER.
NEXT - BODYSHELL FITTING !

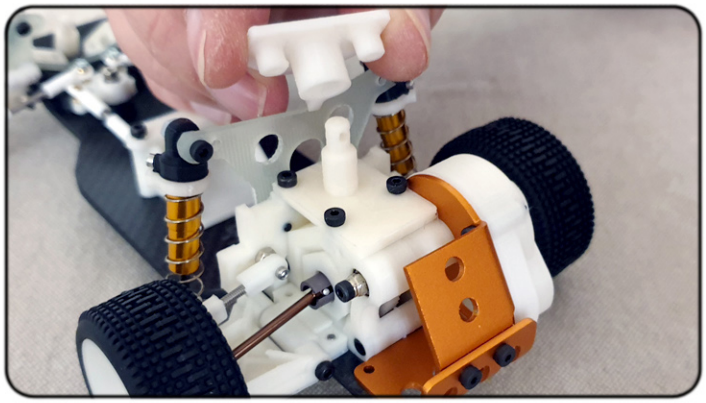




USING WINDOW MASKS, PAINT BODY. TRIM BODY AND WING. SEE NEXT STEP FOR MOUNTING HOLES

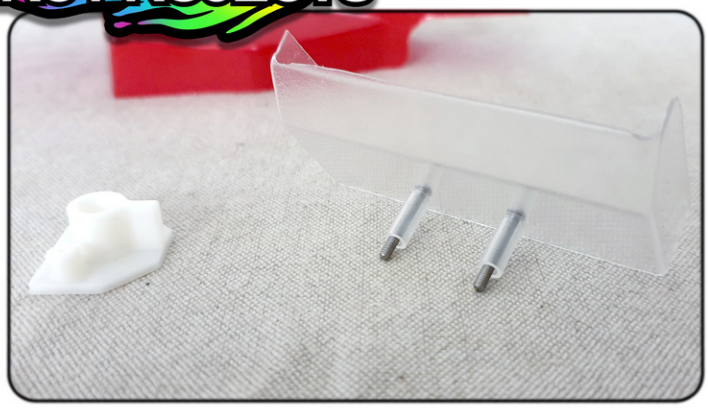


USE BODY-WING MOUNT AND DIMPLES IN BODYSHELL AS A GUIDE WHEN MAKING 6MM & 2MM HOLES

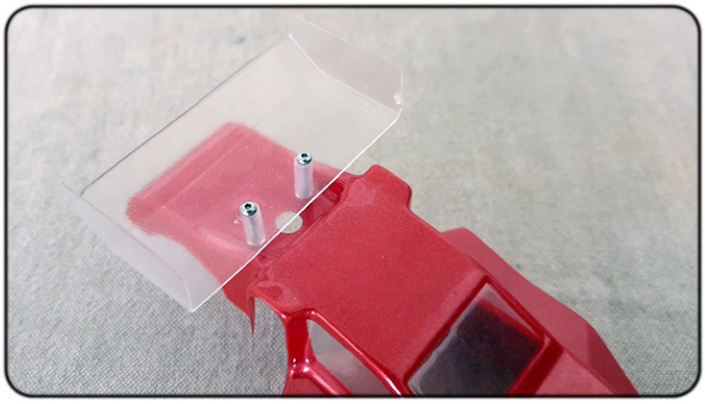


TEST FIT BODY-WING MOUNT ONTO REAR BODY POST. IF IT'S TOO TIGHT, USE BODYSHELL REAMER TO MAKE HOLE LARGER

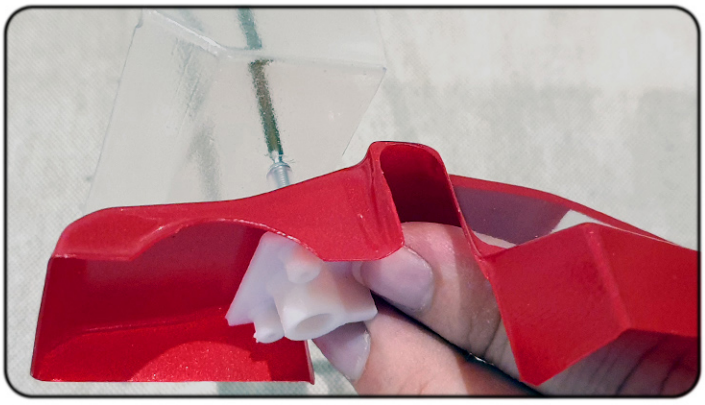
NRC PROJECTS



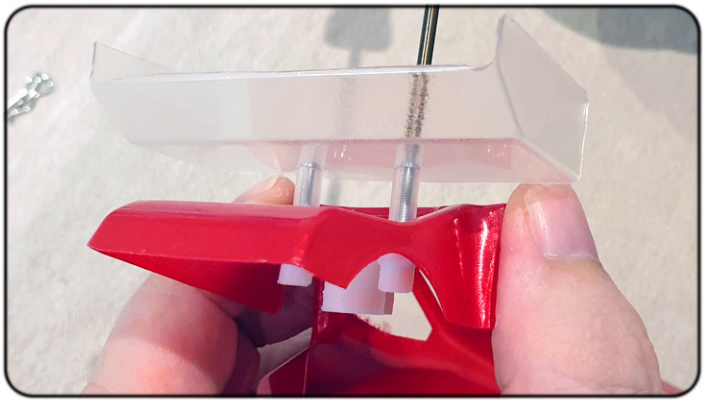
SCREW M2X16MM SCREWS THROUGH WING & M2.5X10MM PLASTIC SPACERS



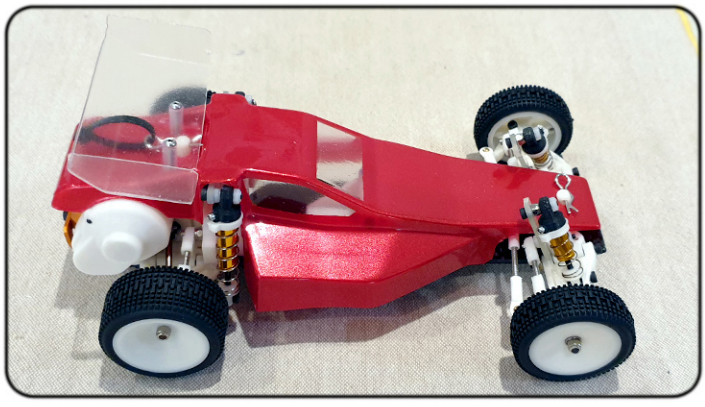
PUSH WING ASSEMBLY THROUGH 2MM HOLES IN BODYSHELL



ATTACH WING ASSEMBLY TO BODY &BODY-WING MOUNT. YOU MAY NEED TO MAKE 2MM HOLES LARGER FOR ALIGNMENT



SCREW WING-BODY ASSEMBLY FULLY TOGETHER



*2 SIZES OF FRONT BODY POST ARE INCLUDED. HOWEVER USING VELCRO (HOOK AND LOOP FASTENER) ON THE SIDES OF CHASSIS IS RECOMMENDED

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CONGRATULATIONS ON YOUR BUILD
AND THANK YOU FOR YOUR PURCHASE !
WE HOPE YOU ENJOYED THE BUILD.

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PAGE FOR ELECTRONICS GUIDE
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