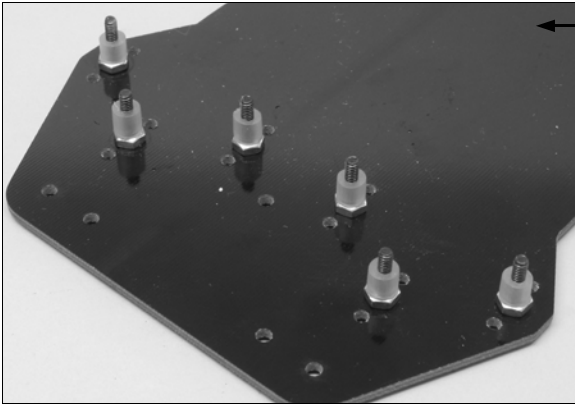




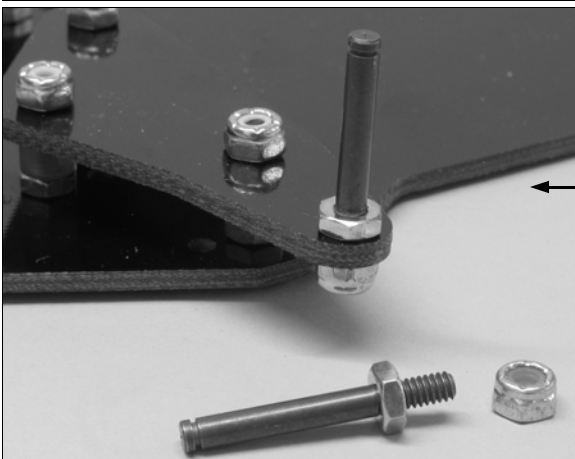
RJS2021 LTO SPORT OVAL RACER LESS ELECTRICS

THANKS FOR BUYING THE RJ SPEED 1/10 LTO SPORT KIT FOR OVAL RACING. THE ASSEMBLY WILL NOT BE DIFFICULT IF YOU READ THE TEXT, LOOK AT THE PICTURES, AND THE EXPLODED VIEW DRAWING. YOU WILL NEED A SMALL PAIR OF PLIERS, A 1/4" SOCKET OR WRENCH, AND A 7/16 SOCKET FOR THE BODY POSTS AND DIFF NUT. HEX WRENCHES TO FIT THE SOCKET HEAD SCREWS ARE PROVIDED. (BAG 11)

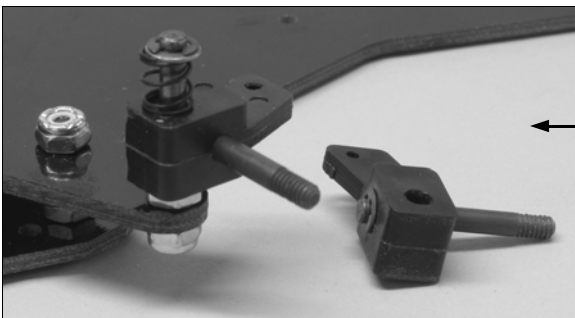
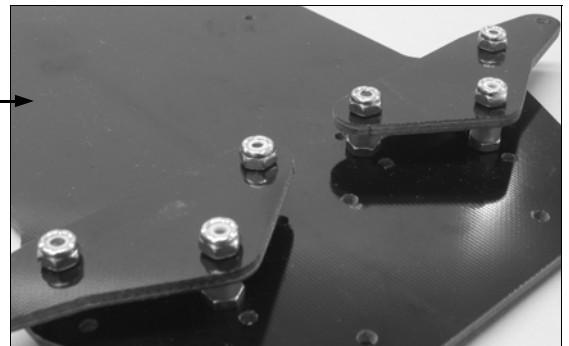
THIS KIT REQUIRES A 540 OR 550 SIZE MOTOR, 4 OR 6 CELL BATTERY PACK, 2 CHANNEL RADIO SYSTEM WITH 1 SERVO AND ESC (MAKE SURE THE ESC WILL WORK WITH THE MOTOR YOU CHOOSE) AND A SERVO SAVER TO FIT THE SERVO YOU HAVE CHOSEN. YOU WILL ALSO NEED PAINT FOR THE LEXAN BODY.



STEP 1 GET THE CHASSIS FROM BAG 1 AND OPEN BAG 2 . DO NOT OPEN THE INNER BAG S2A YET. INSTALL SIX 5/8" LONG SCREWS IN THE CHASSIS IN THE CENTER SET OF HOLES FOR THE FRONT PLATES . ADD A JAM NUT ON EACH AND TIGHTEN. ADD A SILICONE TUBE ON EACH ONE.

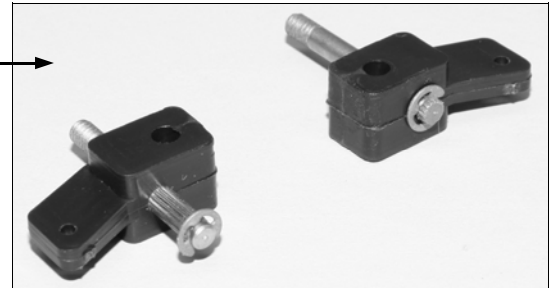


STEP 2 INSTALL THE A-ARMS AS SHOWN AND RETAIN WITH LOCKNUTS. TIGHTEN THEM UNTIL THE A-ARMS TOUCH THE TUBING. YOU CAN ADJUST THEM LATER TO KEEP THE TIRE WEAR EVEN.



STEP 3 THREAD A JAM NUT (THIN ONE) ON EACH KINGPIN, INSERT THE KINGPIN THRU THE FRONT AXLE PLATE AND RETAIN WITH A LOCKNUT.

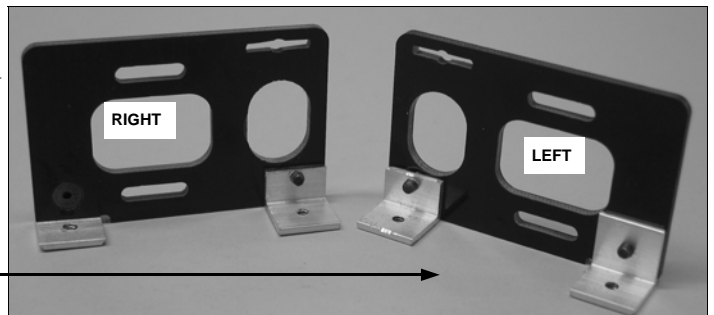
STEP 4 SLIDE A STUB AXLE IN EACH STEERING BLOCK AS SHOWN AND ADD AN E-CLIP.



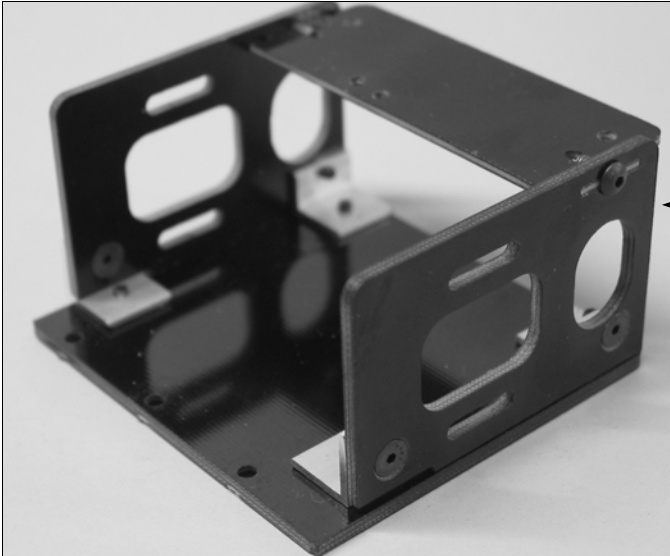
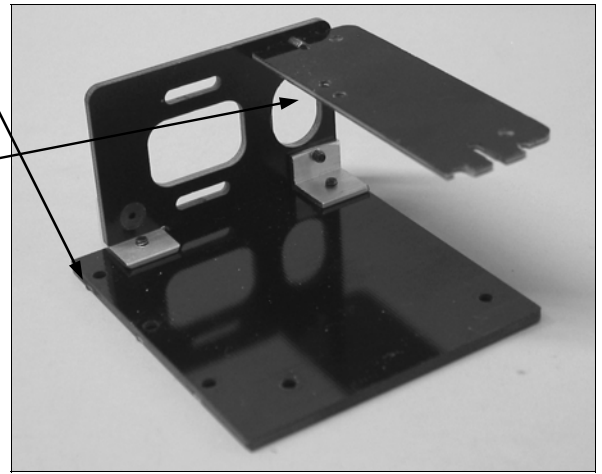
STEP 5 LUBE EACH KINGPIN WITH A SMALL AMOUNT OF GREASE OR SILICONE LUBE. SLIDE A STEERING BLOCK ON EACH ONE, ADD A SPRING, THEN THE STEEL WASHER, AND RETAIN WITH AN E-CLIP ON EACH ONE.

STEP 6 OPEN BAG R3. ATTACH ONE TALL ALUMINUM BRACKET TO THE OUTSIDE FRONT OF THE MOTOR MOUNT THAT HAS SCREW COUNTERSINKS ON OPPOSITE SIDES AND A SHORT ONE TO THE REAR AS SHOWN WITH 1/4" FLAT HEAD SCREWS. THIS IS THE RIGHT MOUNT.

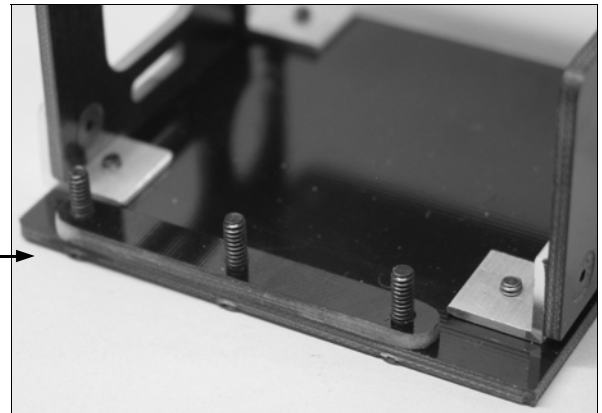
ASSEMBLE THE OTHER WITH BOTH BRACKETS ON THE INSIDE WITH 1/4' FLATHEAD SCREWS. DO NOT TIGHTEN THE SCREWS UNTIL YOU ATTACH THEM TO THE BOTTOM PLATE.



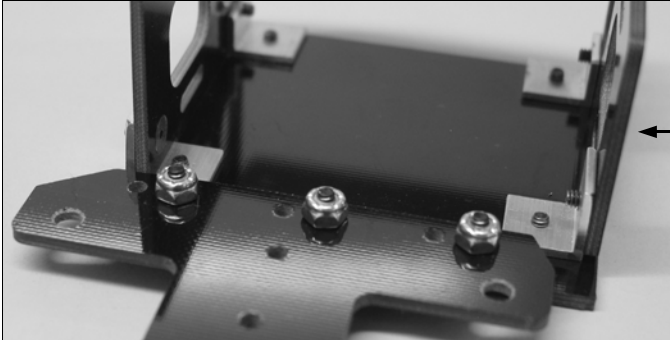
STEP 7 ATTACH THE RIGHT MOUNT TO THE BOTTOM PLATE WITH TWO 1/4" FLATHEAD SCREWS. NOTE THE LOCATION OF THE THREE HOLES WHERE THE T-PLATE WILL ATTACH. ATTACH THE BRACE TO THE MOUNT WITH A 1/4" BUTTON HEAD SCREW. NOTE THE POSITION OF THE HOLES IN THE FRONT OF THE BRACE ARE CLOSER TO THE RIGHT MOUNT. THE SCREW GOES THROUGH THE MOUNT AND INTO THE EDGE OF THE BRACE. DO NOT OVERTIGHTEN IT.



STEP 8 ATTACH THE LEFT MOUNT TO THE BOTTOM PLATE IN THE SAME MANNER. TIGHTEN ALL THE BOTTOM SCREWS. ATTACH THE MOUNT TO THE BRACE WITH A 1/4" BUTTON HEAD SCREW. DO NOT OVERTIGHTEN IT.

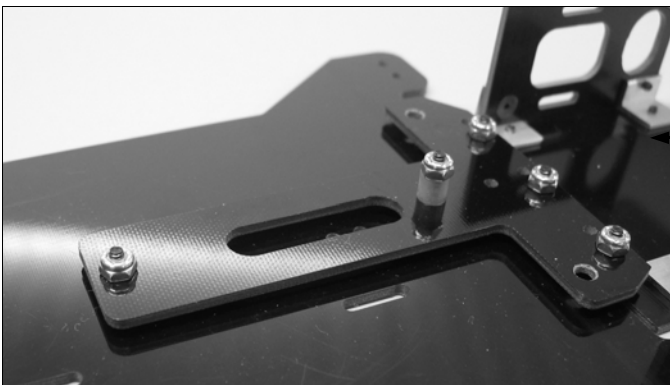
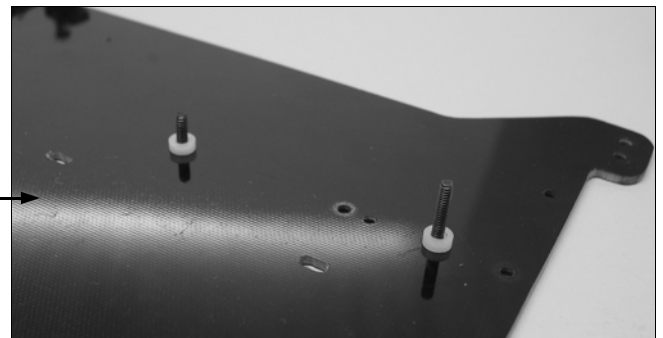


STEP 9 OPEN R3A T-PLATE BAG. INSTALL THREE 1/2" FLAT-HEAD SCREWS UP THROUGH THE BOTTOM PLATE AND ADD THE T-SPACER ON THEM.

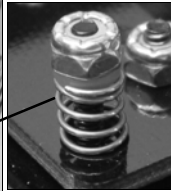
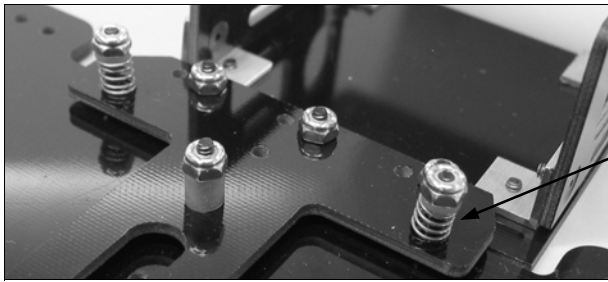


STEP 10 SLIDE THE T-PLATE DOWN OVER THE SCREWS AND RETAIN WITH 3 LOCKNUTS. NOTE THE POSITION OF THE OFFSET AND RELATION OF THE EXTRA SET OF HOLES PLUS THE ANGLES ON THE T-PLATE. THESE CAN BE USED IF YOU WANT TO CHANGE HUB WIDTHS AND MOVE THE MOTOR TO THE RIGHT FOR LESS OFFSET.

STEP 11 INSTALL A 1/2" FLATHEAD SCREW IN THE FRONT T-PLATE LOCATION AND A 3/4" SCREW IN THE HOLE 2ND FROM THE REAR OF THE CHASSIS. YOU CAN USE THE REAR HOLE IF YOU WISH TO STIFFEN THE FRONT TO REAR FLEX OF THE T-PLATE. ADD A 3/32 NYLON SPACER ON EACH SCREW.

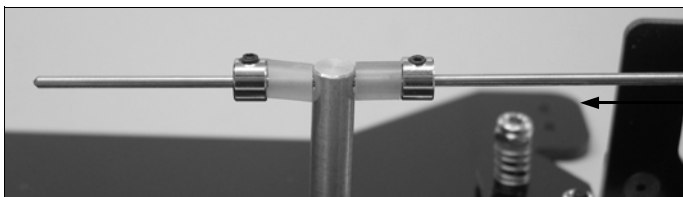
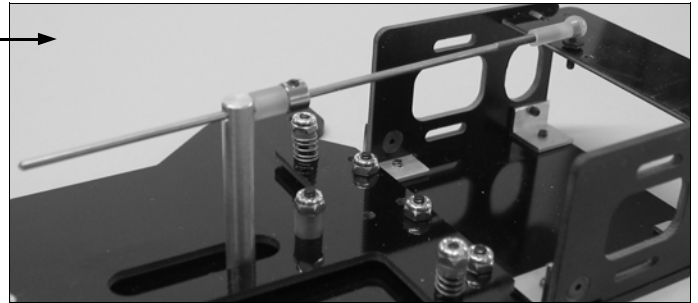


STEP 12 INSTALL THE T-PLATE ASSEMBLY ONTO THE SCREWS. ADD A LOCKNUT ON THE FRONT AND A SILICONE SPACER ON THE REAR, THEN ADD A LOCKNUT AND TIGHTEN UNTIL IT LIGHTLY COMPRESSES THE SILICONE SPACER. COMPRESSING IT MORE WILL STIFFEN THE REAR SUSPENSION MOVEMENT.

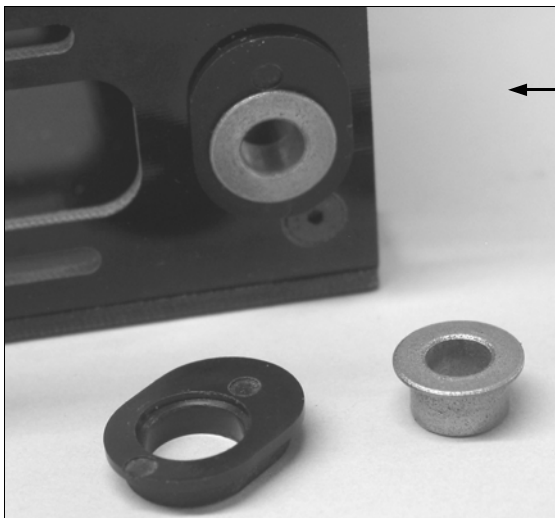


STEP 13 INSERT A 3/4" SCREW THROUGH EACH END OF THE T-PLATE FROM THE BOTTOM OF THE CHASSIS. INSTALL A SPRING, SPRING BUSHING, AND LOCKNUT ON EACH ONE . TIGHTENING BOTH NUTS WILL STIFFEN THE SIDE TO SIDE MOVEMENT AND TIGHTENING ONE WILL ADJUST THE SIDE TO SIDE "TWEAK" OR LEVEL.

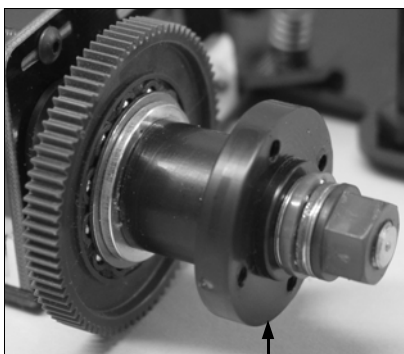
STEP 14 OPEN BAG R3B THREAD THE BALL JOINT INTO THE HOLE IN THE BRACE NEAREST THE RIGHT MOUNT. ATTACH THE SUPPORT POST TO THE CHASSIS WITH A 3/8" FLATHEAD SCREW. LINE UP THE HOLE IN THE TOP OF THE POST DOWN THE CENTER OF THE CHASSIS. THREAD THE PLASTIC BALL CUP ONTO THE STEEL ROD. SLIDE A COLLAR AND SILICONE TUBE ON THE ROD , INSERT THE ROD THROUGH THE POST AND SNAP THE BALL SOCKET ON THE BALL.



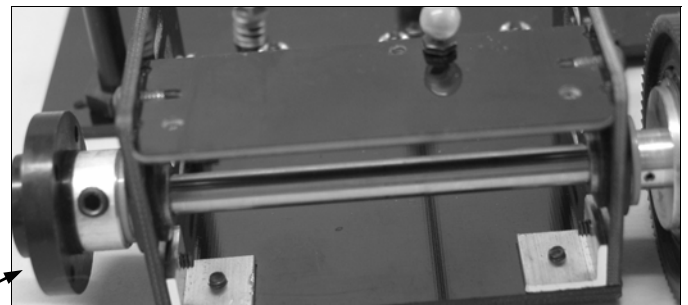
STEP 14A INSTALL A SECOND SILICONE TUBE AND SET COLLAR ON THE FRONT SIDE OF THE POST. THE REAR ONE ADJUSTS THE AMOUNT OF UPWARD FLEX IN THE REAR END AND THE FRONT ONE ADJUSTS THE AMOUNT OF REBOUND. YOU CAN LEAVE A LITTLE SPACE BETWEEN THE COLLAR AND THE TUBING FOR MORE FLEX. YOU CAN USE SMALLER DIAMETER OR LONGER TUBING AND THICK SILICONE FLUID TO DAMPEN THE TRAVEL OR REBOUND.



STEP 15 OPEN BAG G2. INSTALL AN AXLE HEIGHT ADAPTOR IN EACH MOTOR MOUNT FROM THE OUTSIDE AND PRESS A BUSHING INTO EACH ONE. SLIDE THE AXLE THROUGH FROM EACH SIDE THROUGH BOTH BUSHINGS TO GET THEM ALIGNED SO THE AXLE WILL TURN FREELY.

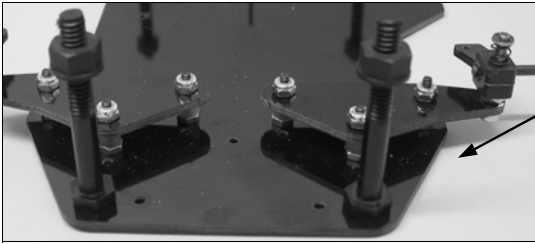


SNAP A DIFF BALL IN EVERY OTHER HOLE IN THE OUTER ROW OF HOLES IN THE GEAR. LUBE THEM WITH OIL OR GREASE.



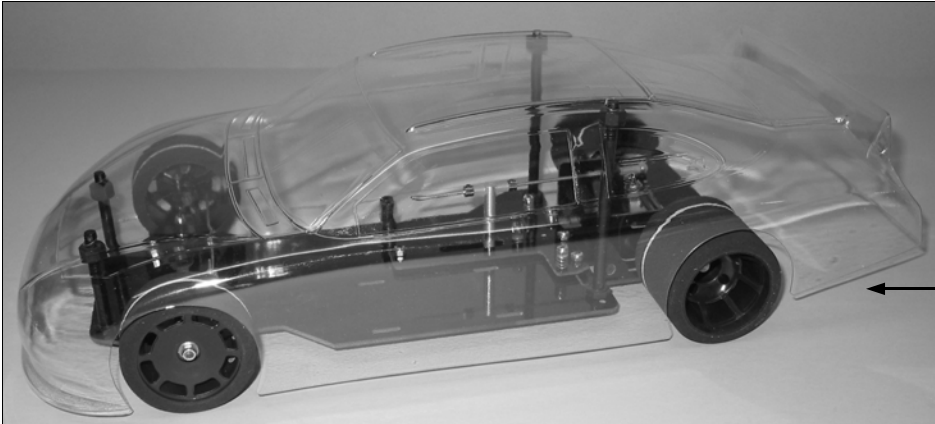
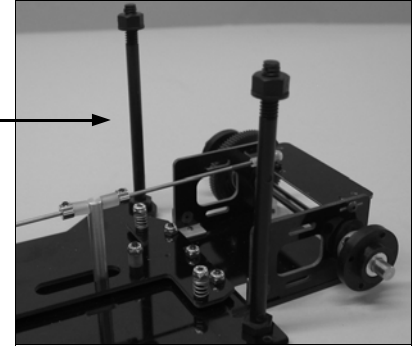
STEP 16 INSTALL A NYLON SHIM ON THE AXLE, SLIDE IT THROUGH THE BUSHINGS , AND A SECOND SHIM AND ADD THE SET SCREW HUB. MAKE SURE THE AXLE TURNS FREELY AND LUBE THE BUSHINGS WITH A LITTLE LIGHT OIL. LEAVE A LITTLE SIDEPLAY IN THE AXLE AND TIGHTEN THE SETSCREW LIGHTLY. FOR EXTRA HOLDING , YOU CAN REMOVE THE HUB AND FILE A FLAT SPOT ON THE AXLE FOR THE SETSCREW TO REST ON, OR YOU CAN DRILL A DIMPLE IN THE AXLE TO DO THE SAME THING.

STEP 17 ASSEMBLE THE DIFF CAREFULLY AS FOLLOWS-DRIVE RING,GEAR,2ND DRIVE RING, ALUM. ADAPTOR, DIFF HUB, THIN METAL WASHER, BLUE BALL CAGE, THICK FLAT WASHER, BOWED SPRING WASHER,AND RED DIFF NUT. MAKE SUR THE DRIVE RINGS ARE SEATED, THEN TIGHTEN THE NUT UNTIL YOU CAN HOLD A HUB WITH EACH HAND AND USE YOUR THUMB TO TURN THE GEAR . TIGHTEN A LITTLE AT A TIME UNTIL THE GEAR IS A LITTLE HARD TO TURN. YOU CAN ADJUST IT MORE WHEN YOU RUN THE CAR.



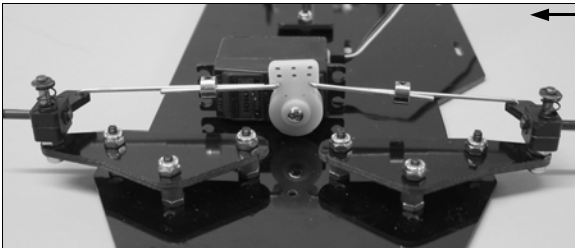
STEP 18 OPEN BAG R5 . INSTALL THE SHORTER FRONT BODY POSTS WITH 3/8 SCREWS AND ADD BODY POST NUTS.

INSTALL THE LONGER BODY POSTS IN THE INNER SET OF HOLES AT THE BACK OF THE CHASSIS PLATE.



STEP 19 INSTALL THE REAR TIRES WITH TWO SCREWS EACH FROM THE DIFF BAG. INSTALL THE BUSHINGS FROM BAG 6 IN EACH SIDE OF EACH FRONT TIRE, LUBE THE AXLES WITH LIGHT OIL, INSTALL THE TIRES AND ADD LOCKNUTS FROM S2A.

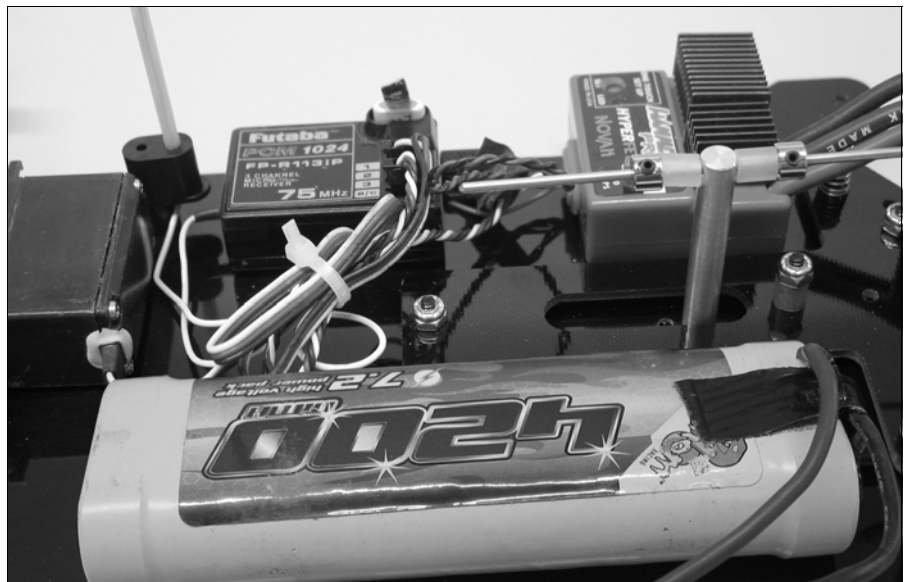
STEP 20 SET YOUR BODY DOWN OVER THE CHASSIS AND MARK THE LOCATIONS FOR THE BODY POSTS AND WHEEL CUTOUTS. YOU CAN CUT THE BODY OUT AND FIT IT OR JUST MARK IT ON THE OUTSIDE , PAINT IT AND THEN TRIM AND FIT IT. LEAVE THE PROTECTIVE FILM ON AS LONG AS POSSIBLE . YOU CAN REMOVE THE TIRES TO MAKE IT EASIER TO INSTALL THE RADIO GEAR IF YOU PREFER.

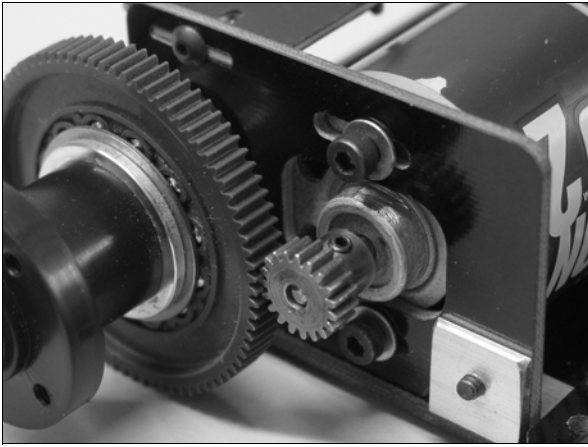


STEP 21 INSTALL YOUR SERVO SAVER ON THE SERVO YOU HAVE CHOSEN. WE PROVIDE SERVO TAPE TO ATTACH THE SERVO TO THE CHASSIS. ALWAYS WIPE BOTH SURFACES BEFORE APPLYING THE TAPE. THE OUTPUT ARM OF THE SERVO SHOULD BE IN THE CENTER OF THE CHASSIS AND SET SO THE LINKAGE RUNS STRAIGHT OUT TO THE STEERING BLOCKS. SET THE SERVO IN PLACE AND SET UP YOUR LINKAGE BY INSTALLING LINK RODS FROM BAG 6 IN THE SERVO SAVER AND STEERING BLOCKS AND JOINING THEM WITH SET COLLARS. MARK WHERE THE SERVO GOES , REMOVE THE LINKAGE AND USE THE TAPE TO ATTACH THE SERVO , THEN ATTACH THE LINKAGE AND ALIGN THE STEERING BLOCKS.

STEP 22 INSTALL YOUR BATTERY PACK IN PLACE ON THE LEFT SIDE OF THE CHASSIS WITH SUPPLIED TIE STRAPS OR NYLON REINFORCED TAPE.

USE SERVO TAPE TO ATTACH YOUR RECEIVER AND ESC ON THE OPPOSITE SIDE OF THE CHASSIS. CONNECT YOUR WIRES AND TAPE THE EXCESS IN PLACE TO KEEP IT FROM GETTING UNDER THE CHASSIS. WE PROVIDE AN ANTENNA MOUNT , SCREW, AND A COUPLE OF HOLES IN THE CHASSIS TO ATTACH IT IF NEEDED. WHERE YOU MOUNT THE RADIO GEAR WILL DEPEND ON THE SIZE OF THE GEAR THAT YOU HAVE PURCHASED.





STEP 23 ATTACH THE GEAR FROM BAG 6 TO THE MOTOR YOU HAVE CHOSEN WITH A SETSCREW FROM BAG 6. USE THE TWO SCREWS AND WASHERS TO ATTACH THE MOTOR TO THE MOTOR PLATE. SLIDE THE MOTOR BACK UNTIL THE GEARS MESH. MAKE SURE THAT THE PINION GEAR LINES UP ON THE DIFF GEAR. TIGHTEN THE MOTOR LIGHTLY AND CHECK TO MAKE SURE THERE IS A SLIGHT AMOUNT OF PLAY BETWEEN THE GEARS. TURN THE GEARS, CHECK THE MESH AGAIN, TIGHTEN THE MOTOR SCREWS AND CHECK THE MESH AGAIN. YOU MAY WISH TO PURCHASE A DIFFERENT SIZE GEAR DEPENDING ON THE TYPE OF MOTOR YOU CHOOSE. ATTACH THE ESC WIRES TO THE MOTOR AND BATTERY. ACCORDING TO THE INSTRUCTIONS THAT CAME WITH THEM.

YOU NEED TO CHARGE YOUR CAR BATTERY, INSTALL BATTERIES IN YOUR TRANSMITTER, AND SET UP YOUR RADIO CONTROLS ACCORDING TO THE MANUFACTURERS' INSTRUCTIONS. CAREFULLY CHECK ALL FUNCTIONS FOR STEERING AND MOTOR CONTROL BEFORE YOU TAKE THE CAR OUT. WHEN YOU TAKE THE CAR OUT, SET IT DOWN AND ADJUST THE DIFF SO THAT IT SLIPS A LITTLE WHEN YOU TAKE OFF HARD SO THAT THE CAR WON'T SPIN OUT EASILY, ESPECIALLY IF YOU'RE RUNNING ON A DIRTY PARKING LOT. RUN THE CAR SLOWLY AT FIRST AND BUILD UP SPEED AS YOU GET USED TO IT. MAKE ADJUSTMENTS AS NEEDED. OF COURSE DON'T FORGET, THIS CAR IS MADE FOR LEFT TURN OVAL RACING, AND WILL NOT HANDLE WELL IF YOU TRY TO MAKE RIGHT TURNS WITH IT.

YOU CAN USE WD-40 TO CLEAN YOUR TIRES AND SOFTEN THEM FOR BETTER TRACTION ON SOME SURFACES. YOU CAN USE A PIECE OF SCRAP LEXAN BODY MATERIAL TO ADD TO THE HEIGHT OF THE REAR SPOILER FOR MORE REAR TRACTION IN HIGHER SPEED TURNS.

YOU CAN ADJUST THE ANGLE OF THE FRONT A-ARMS TO GET EVEN TIRE WEAR BY TIGHTENING THE LOCK NUTS AS NEEDED. YOU SHOULD HAVE THE ARMS LEANED BACK A LITTLE TO IMPROVE THE STEERING AND WEAR THE TIRES MORE EVENLY. LOOK AT THE TIRE WEAR AFTER RUNNING THE CAR AND ADJUST AS NECESSARY.

THIS CAR IS MADE FROM QUALITY MATERIALS AND WILL TAKE A LOT OF ABUSE, BUT CAN BE BROKEN IF RUN INTO SOLID OBJECTS REPEATEDLY AT HIGHER SPEEDS. REPLACEMENT PARTS ARE AVAILABLE THROUGH YOUR LOCAL HOBBY SHOP. THE DIFF, BUSHINGS, MOTOR, AND THE STEERING PARTS WILL WORK BETTER IF KEPT CLEAN AND LUBRICATED. **ABOVE ALL, GO OUT THERE AND HAVE SOME FUN WITH YOUR RJ SPEED LTO SPORT OVAL RACER!**

