

Lexus IS 1st gen / Toyota Altezza / Toyota Chaser X100 subframe modification.

This manual describes the process of modifying the Lexus IS 1st gen (XE 1998-2005), Toyota Altezza and Toyota Chaser X100 front subframe. With this modification steering rack moves forward. Given setup is meant to be used with WISEFAB IS XE10 Front kit. Stock engine mounts and subframe brace can be used with modified subframe. Subframe modifications are same for the RHD and LHD steering rack. Pictures on this manual are taken with Lexus IS left-hand drive subframe.

1. Make sure that You have the all required tools on hand. You will need:

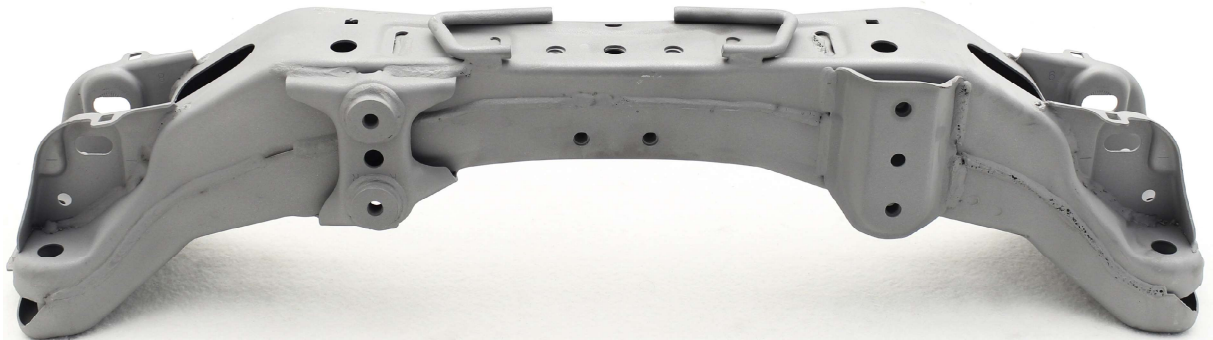
- Safety equipment (welding mask, goggles, gloves)
- Marker, masking tape, scissors
- Wrenches
- Die grinder. Angle grinder with cutting and sanding discs
- Welding equipment

2. Print and cut the paper templates out. Templates are at the end of the manual. NB! Use the template, where is written your car model. Templates and parts may appear different from the real ones. In case you printed out the manual yourself, then there is scale check line 127 mm or 5" long. If the templates are not in scale, then check your printer settings and reprint it until actual measurement is 127 mm. Dotted line on template is for positioning, bold solid line for marking the cutting line.

3. Remove the tie rods and rubber boots from the steering rack. Press out the rubber bushings from the mounting points and install the new solid bushings as shown in the picture.



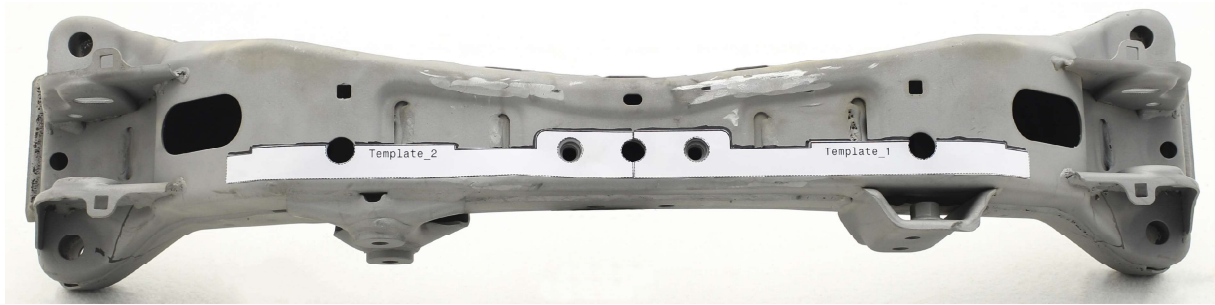
4. Clean the subframe from dirt/oil. Sandblast the subframe if possible.



5. Cut off the undertray mountings.



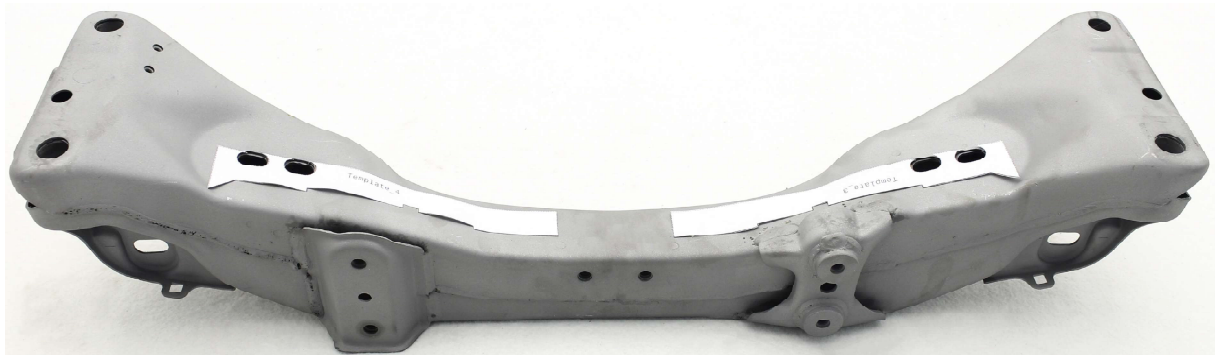
6. Position the Template_1 and Template_2 as shown in the picture, Holes in the templates have to match with the holes in the subframe. Double sided tape is useful for placement. Mark the cutting lines.



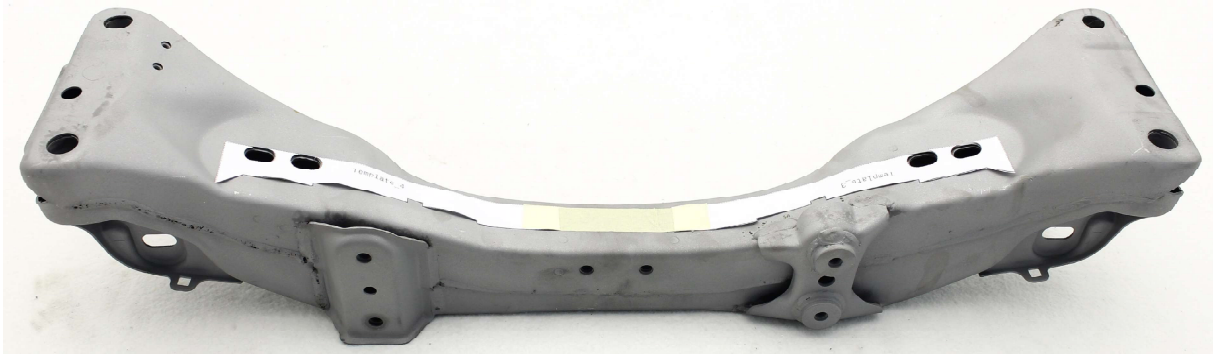
7. Place the masking tape along the cutting edge and cut the tape as shown in the picture. Check with the washer WFIS9_106 if there are at least 3 mm gap between the mounting surface and the masking tape edge. Repeat the same on the other side. Mark the cutting lines.



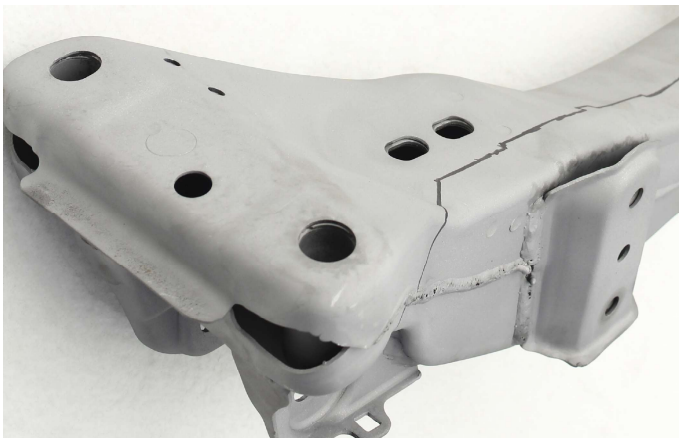
8. Position the Template_3 and Template_4 as shown in the picture, holes in the templates have to match with the holes in the subframe.



9. Connect the templates with the masking tape (along the cutting edge) and mark the cutting lines.



10. Place the masking tape at the end of the marked line and place it as shown in the picture. Mark the cutting lines. Same thing on the other side.



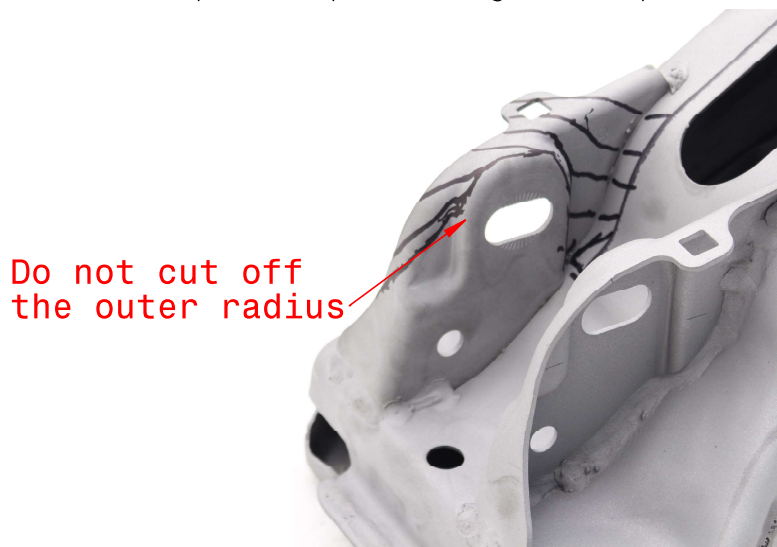
11. Place the masking tape at the end of the marked line and place it as shown in the picture. Mark the cutting lines. Same thing on the other side.



12. Place the masking tape along the edge to the mounting surface. Mark the cutting line.



13. Hatch the area as shown on picture. Keep the mounting surface. Repeat the same on the other side.



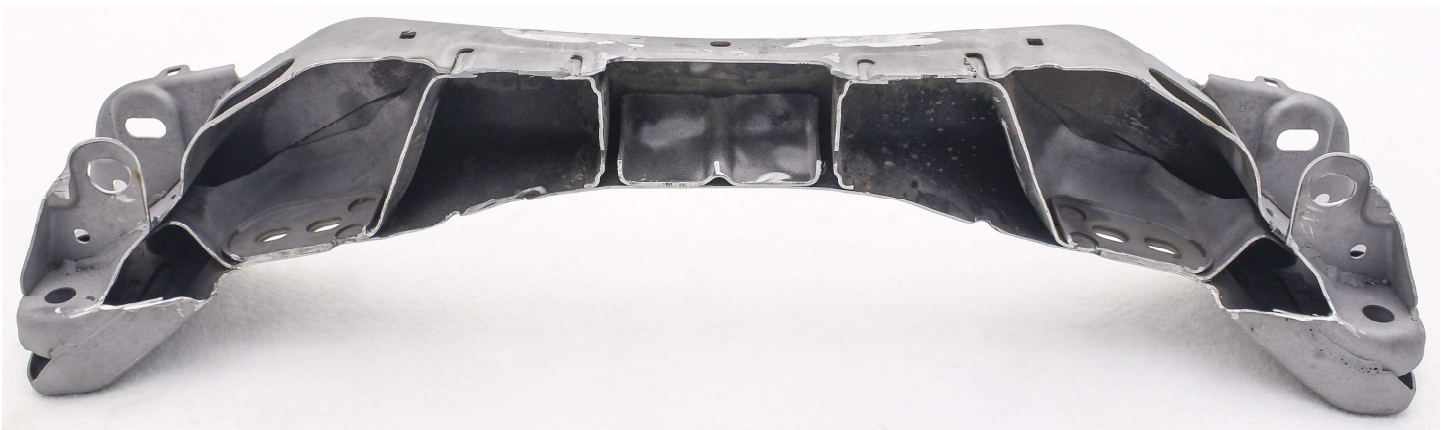
14. Hatch the area between the marked line as shown in picture



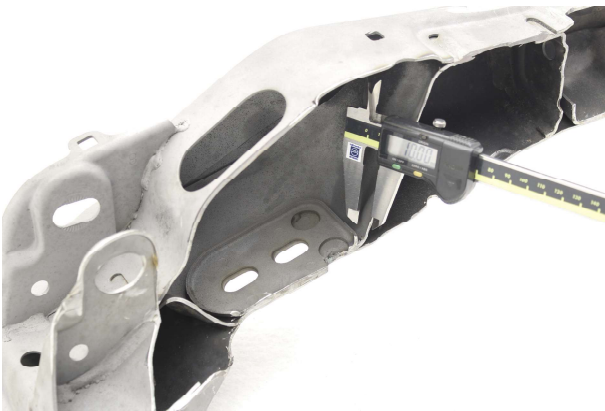
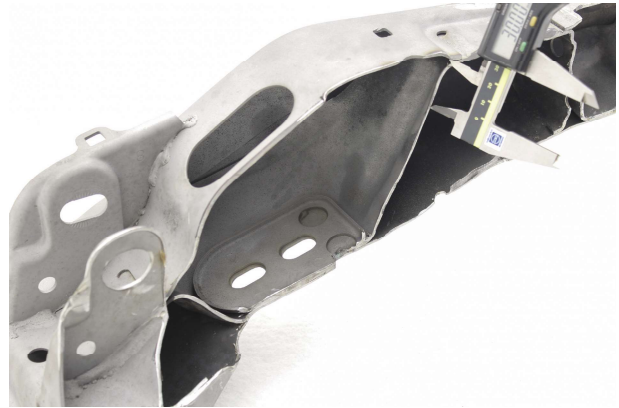
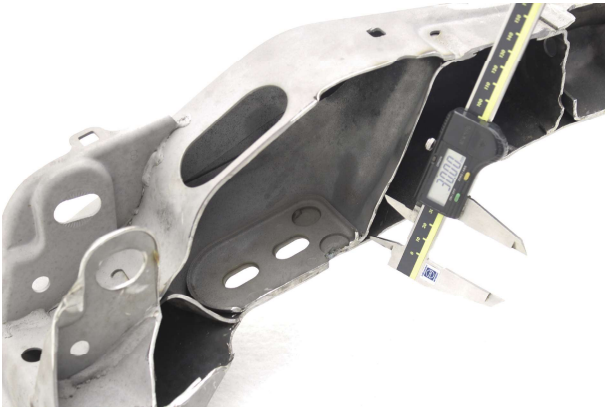
15. Position the Template_5 and Template_6 as shown in the picture. If you have Toyota Chaser, the arrow must point outward. Mark the cutting line and grind the marked area to make room for the nut. Smooth the edges after grinding.



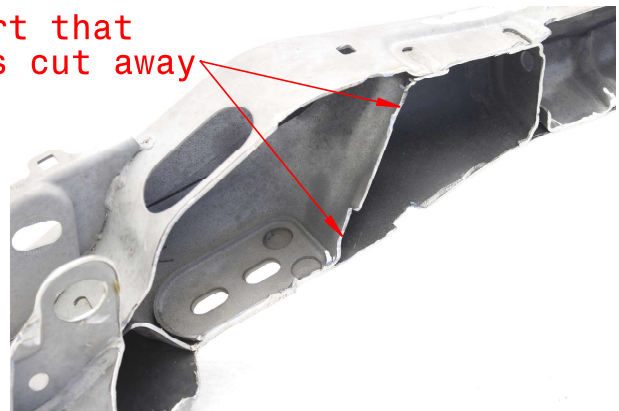
16. Cut off the hatched area



17. Modify the inner walls. Cut away about 30 mm from top surface and about 30 mm from bottom surface 10 mm deep. Same for the other side.



Part that
was cut away



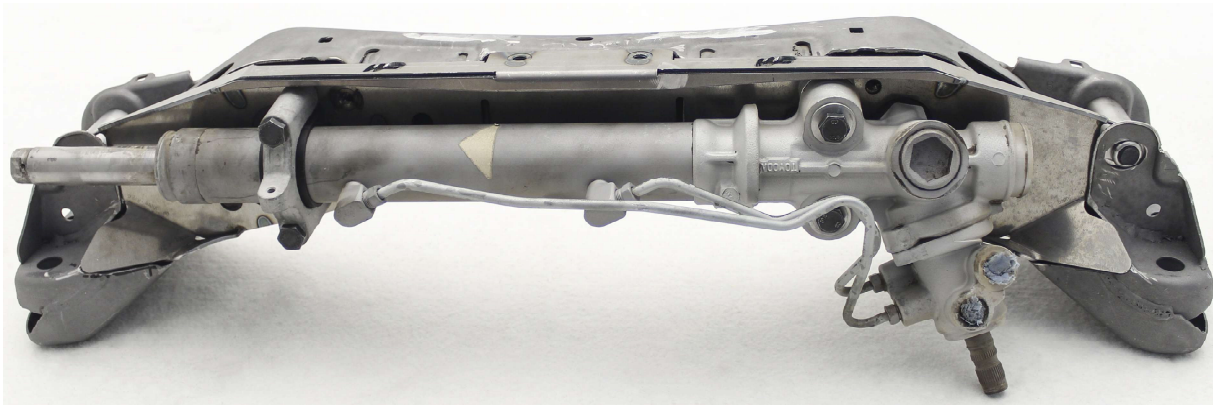
18. Place the steering rack relocation insert to the subframe. Please check that insert is not interfering with subframe or the insert itself is not bent. Check if there are enough room behind the steering rack mounting nuts to mount the bolts.



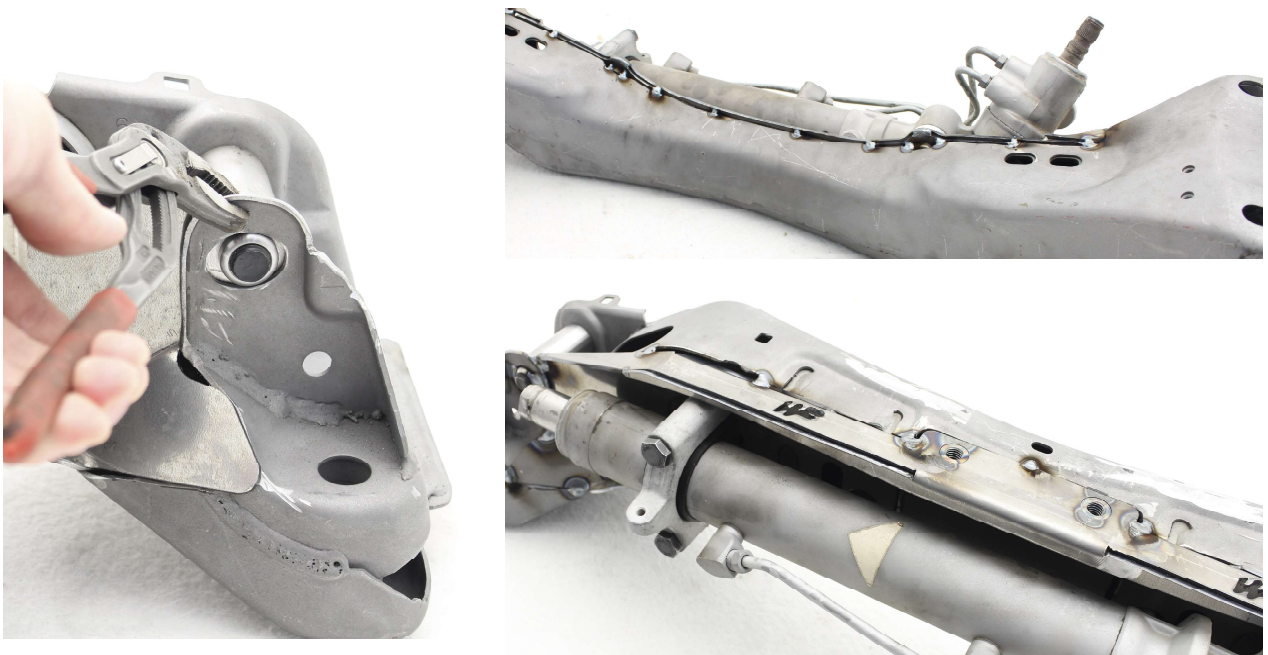
19. Place the WFIS9_106 (Lexus IS/Yotoya Altezza) WFIS9_109 (Toyota Chaser) washer to the lower control arm mount to the side that was not modified. If you have Toyota Chaser, the arrow must point outward. Place the bushing between the lower control arm mount and loosely tighten it with the bolt and the supplied weld nut. Repeat the same on the other side. Make sure everything lines up, then tighten the bolts.



20. Mount the steering rack and make sure the insert is not bended.



21. Tack weld the relocation insert. If the stock control arm mount is away from the rack relocation surface then clamp them together while tack welding.



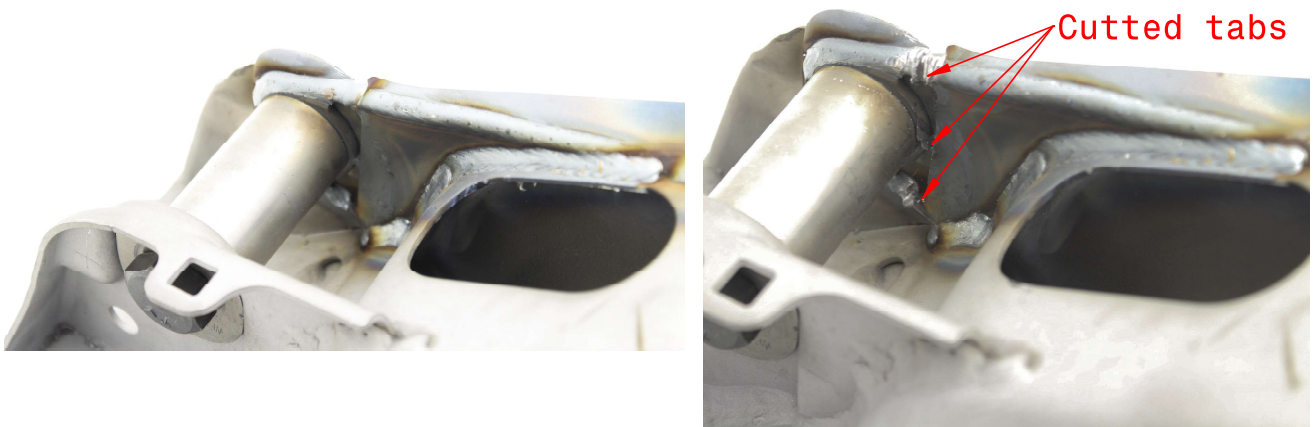
22. Completely weld the insert to the subframe. We recommend to keep the steering rack mounted when welding but make sure that the plastic steering rack bushing won't melt. Avoid overheating the subframe and the rack relocation insert to minimize distortions.



23. Grind flat the weld next to the steering rack mount.



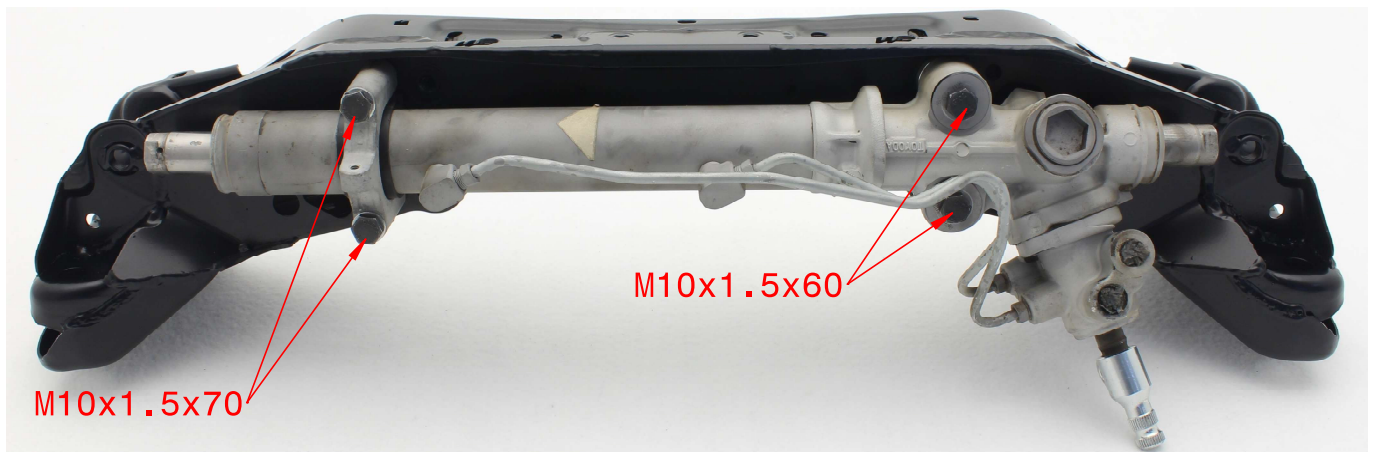
24. If the steering rack relocation needs to be Formula Drift legal, the tabs between the insert and lower control arm mount needs to be cut through. Use chisel to cut the tabs. NB! If the subframe does not have to be FD legal, then this is not necessary.



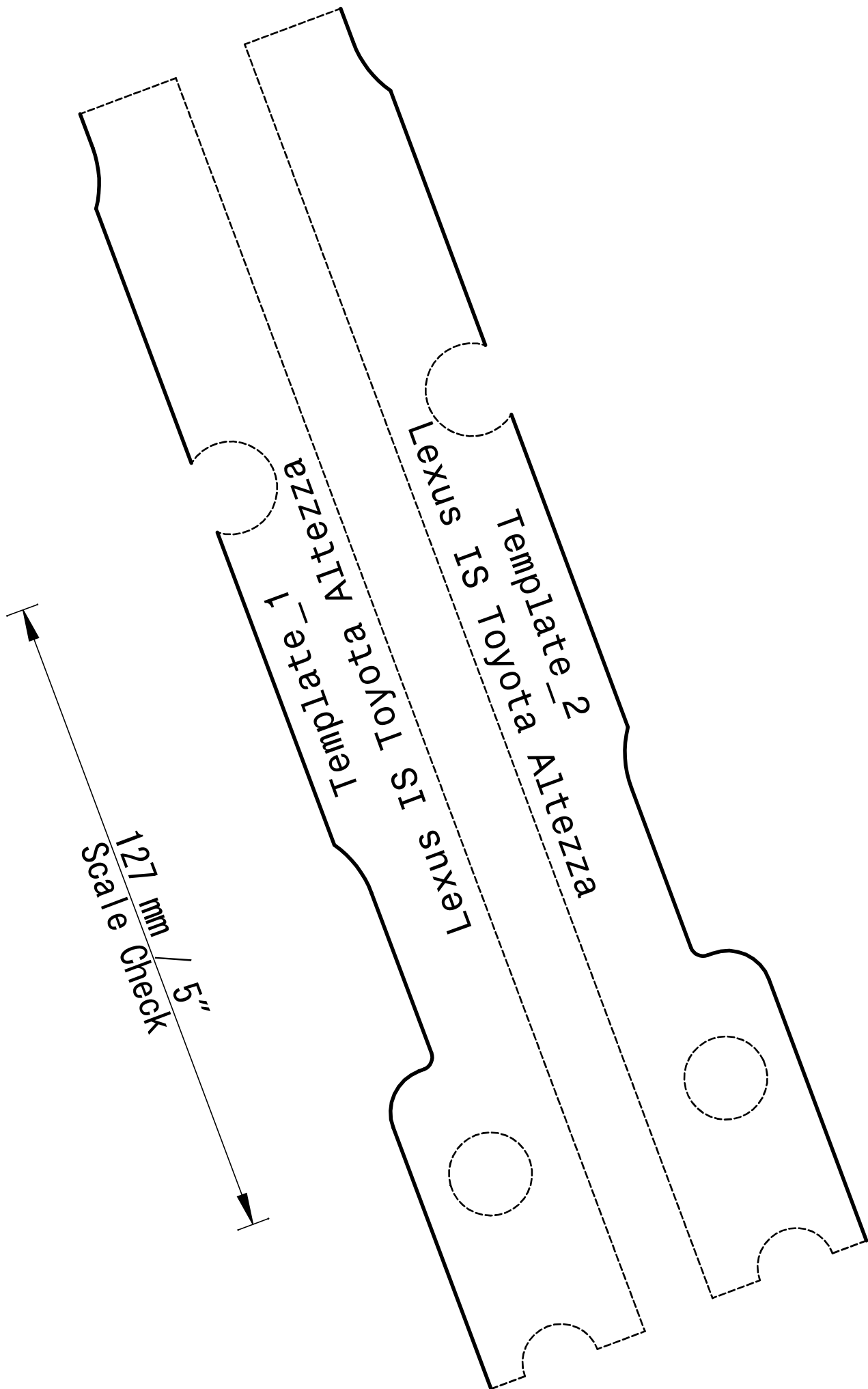
25. Remove all the bolts and washers. Remove any weld spatter and sharp edges. Apply appropriate coating.



26. Assemble the kit.



27. Use the small bushings between subframe brace and fixtures on body.



127 mm / 5"
Scale Check

Template_1

Template_2
Lexus IS Toyota SI
Altezza

