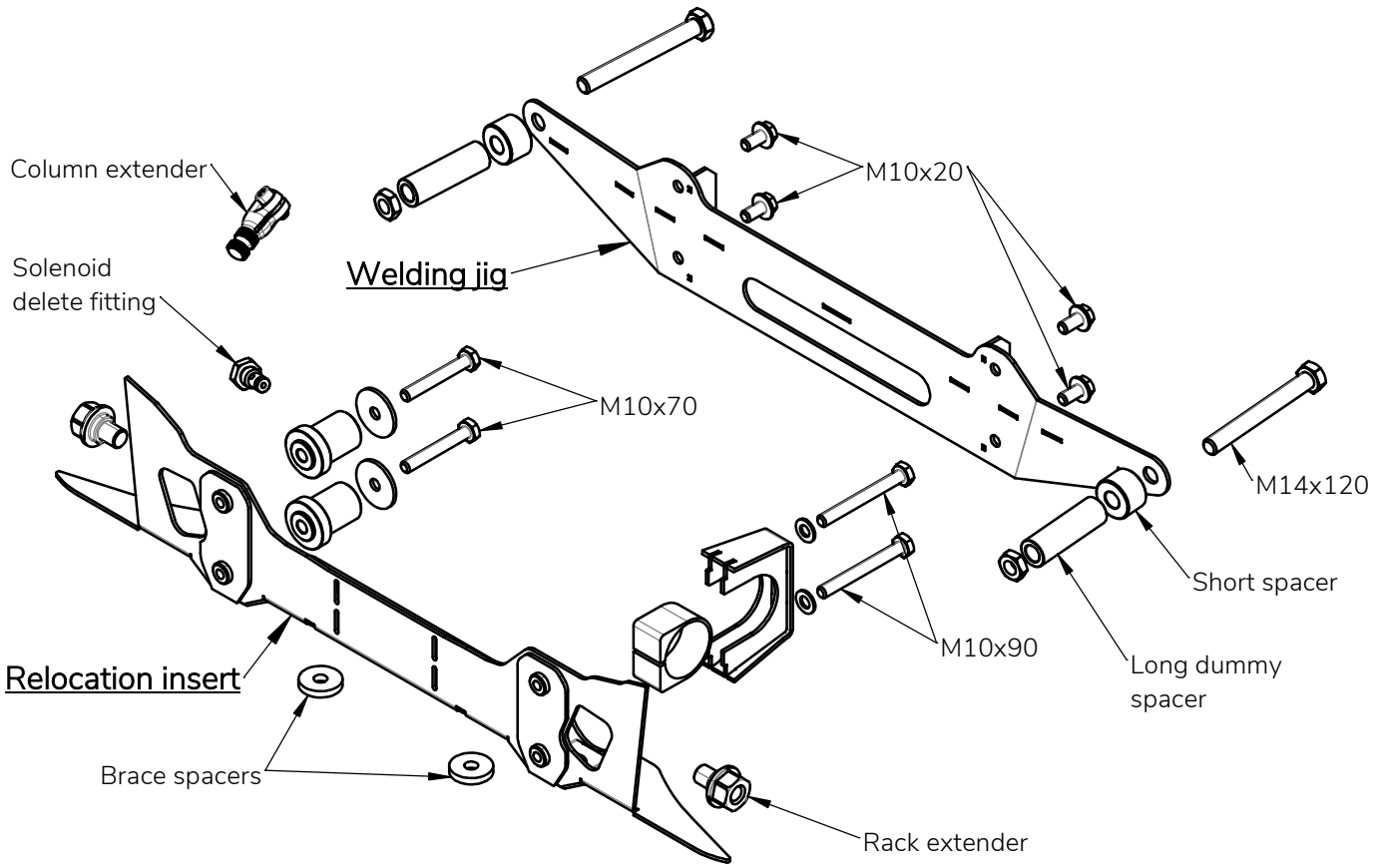
Wisefab Nissan 350Z/Infiniti G35 rack relocation kit installation guide.

This manual describes the modification process of the Nissan 350Z/ Infiniti G35 front subframe. We recommend reading this manual all the way through before making any modifiactions.
With this modification the steering rack moves forward from the stock location.
Given setup is meant to be used with Wisefab Nissan 350Z Front Drift Angle Lock Kit.
Stock engine mounts could be used with the modified subframe. With some steering racks, aftermarket engine mounts or modifications to the steering rack hoses or pipes may be necessary.
Modifications and templates are the same for LHD and RHD cars. This kit can be used to convert a RHD subframe to LHD and vice versa.

1. Make sure that You have all the required tools on hand. You will need:
· Safety equipment (welding mask, goggles, gloves)
· Fine tip permanent marker, measuring tape, scissors
· Wrenches
· Angle grinder with cutting and sanding discs, burr removal tool (die grinder)
· Welding equipment
· Power drill with Ø25 mm(1”) drill bit and 4mm(5/32") drill bit (optional)

2. Print and cut out the paper templates which are at the end of this guide. Templates and parts may appear different from the real ones. Dotted line on template is for positioning, bold solid line is for marking the cutting line. In case you printed out the manual yourself, then there is a 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. Double-sided tape or masking tape is useful for placement.

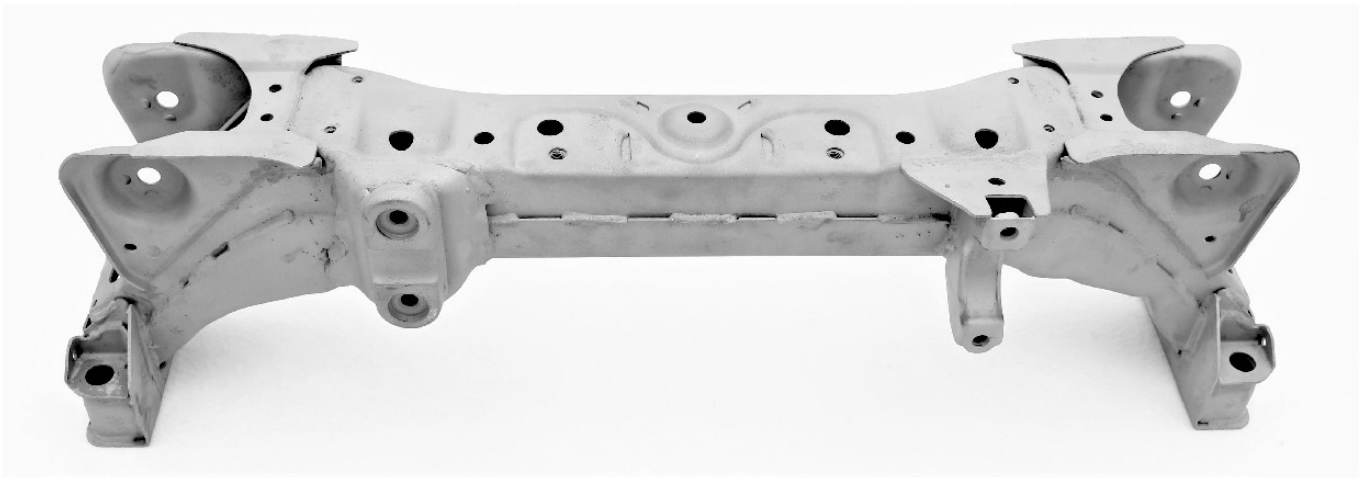


FOR RACING USE ONLY

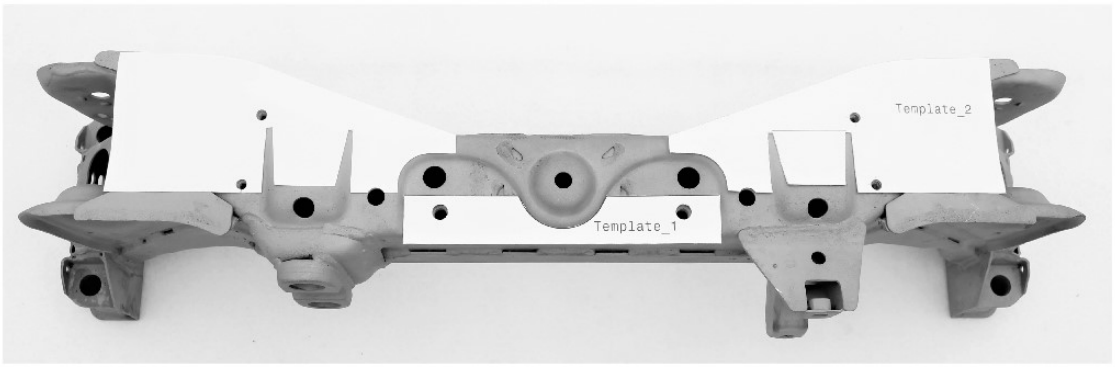
If you still have some trouble installing the kit, contact us at **sales@wisefab.com**, or call us **+372 5562 5669**

3. Remove the tie rods and rubber boots from the steering rack. Press out the rubber bushings from the mounting points. Remove any oxidation and dirt from the mounting surfaces.

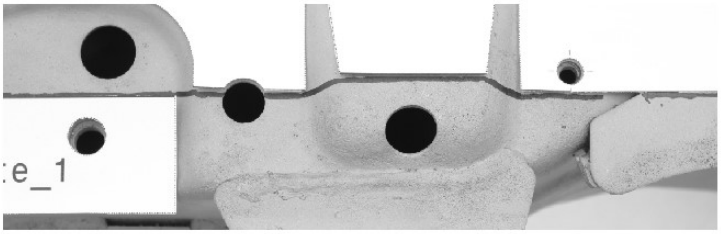
4. Clean the subframe from dirt/oil. Sandblast the subframe if possible.

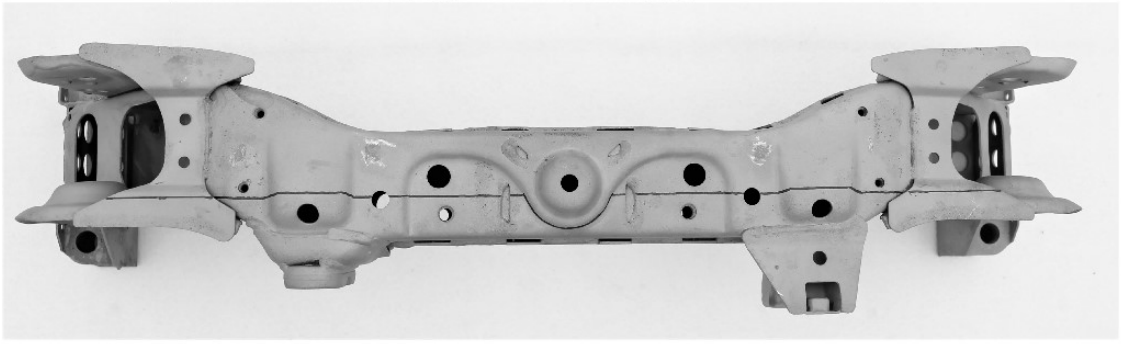


5. Position Template_1 and Template_2 as shown on the picture. Mark the cutting lines. Template_2 is symmetrical and could be used on both sides of the subframe.

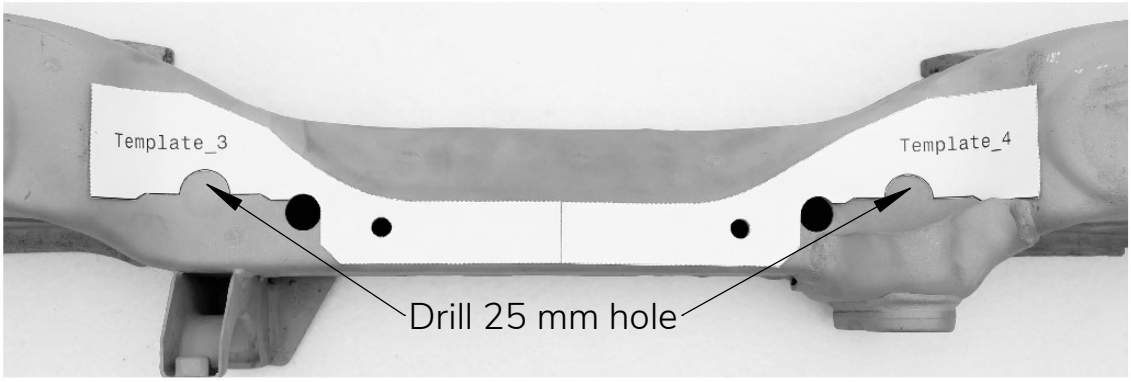


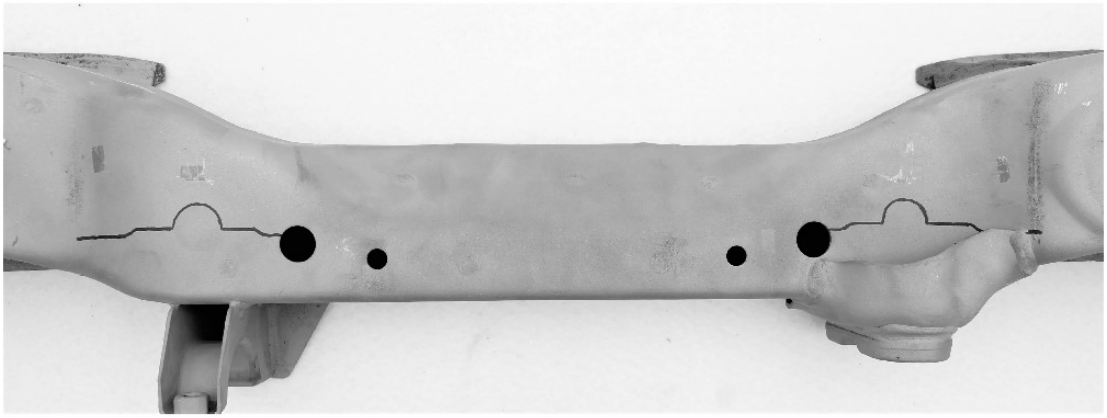
6. Connect the gaps with straight lines.



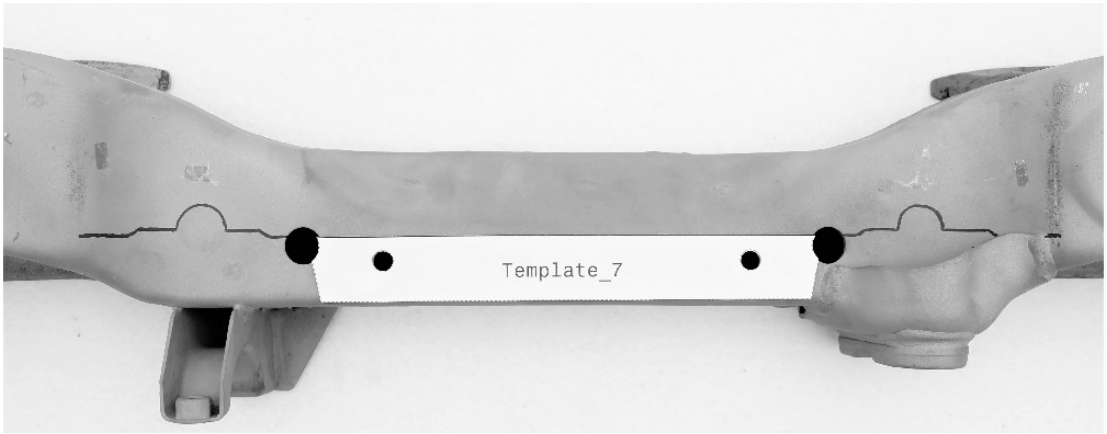


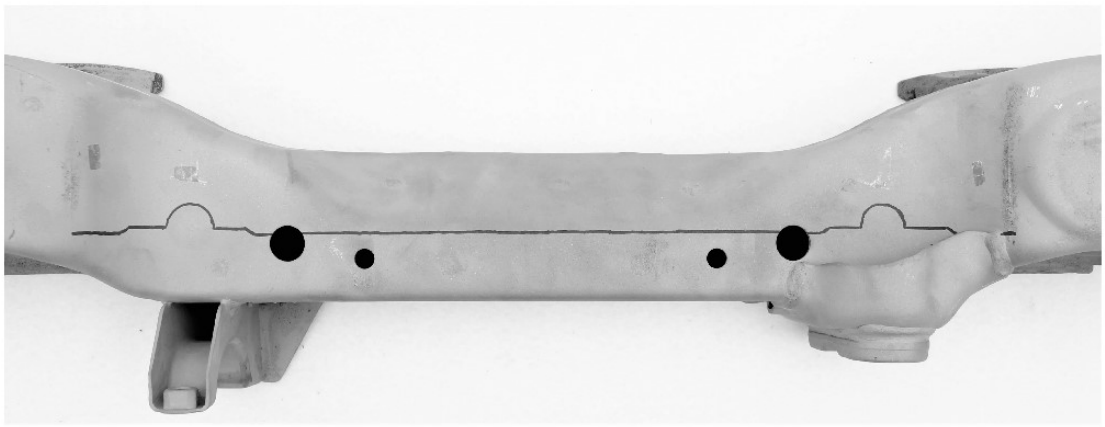
7. Turn the subframe over and position Template_3 and Template_4 as shown in picture. Mark the cutting lines. If possible, mark the centre of the arc and drill with a 25mm/1” drill bit. If not, cut it out later with the angle grinder.





8. Position Template_7 as shown in the picture. Mark the cutting line.

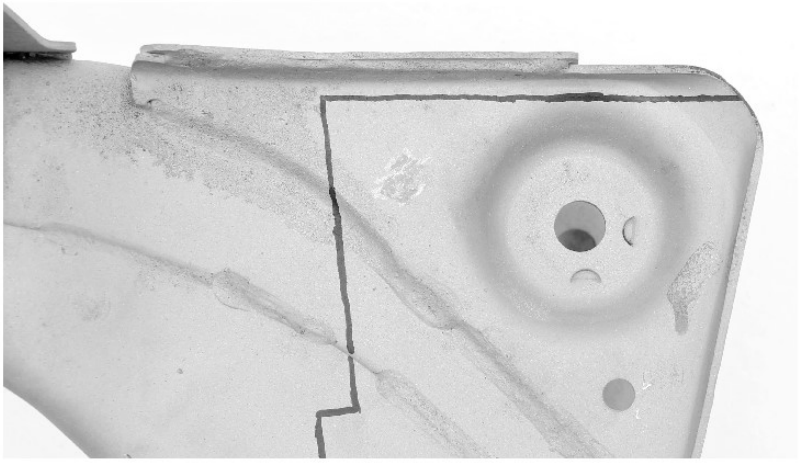




9. Position Template_5 and Template_8 on the left and Template_6 and Template_9 to the right as shown in the picture.

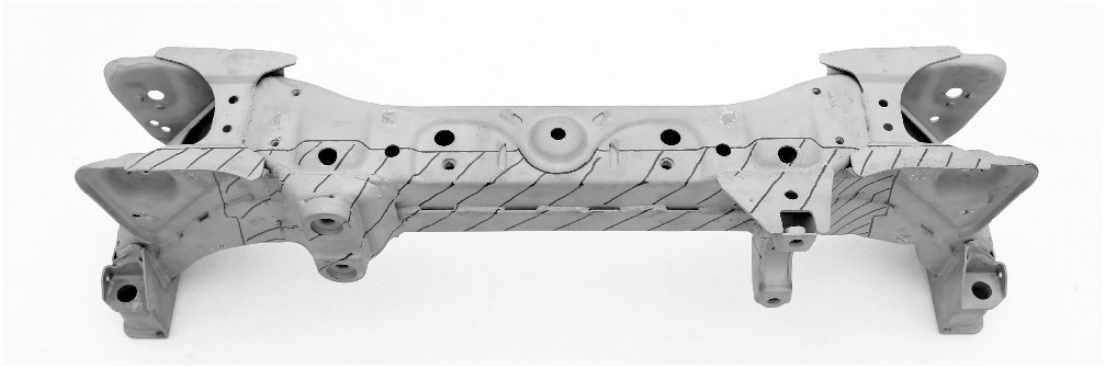
10. Make sure the dotted lines on the templates match each other and mark the cutting line.

11. Extend the cutting line to the end of the subframe.



12. Connect with other cutting lines.

13. Cut the marked lines and remove the sections highlighted in the picture.



NOTICE!!!

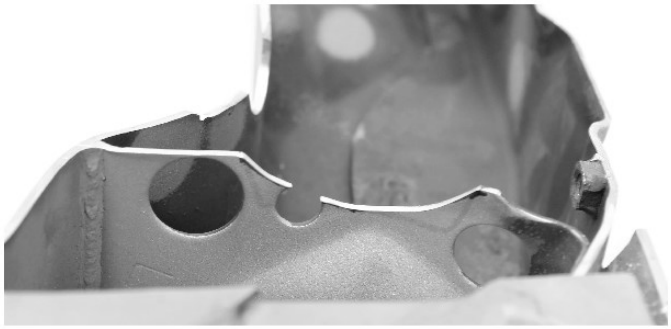
The cutting lines have been slightly changed from what is visible in the previous pictures, but all the templates and positions are the same. All proceeding pictures are up to date.

14. Be advised that it is not possible to remove the cut section all at once. It is best to remove them in multiple sections because the inner walls are welded to the section that needs to be cut away. Use these pictures and the relocation insert to determine where the inner walls are located.

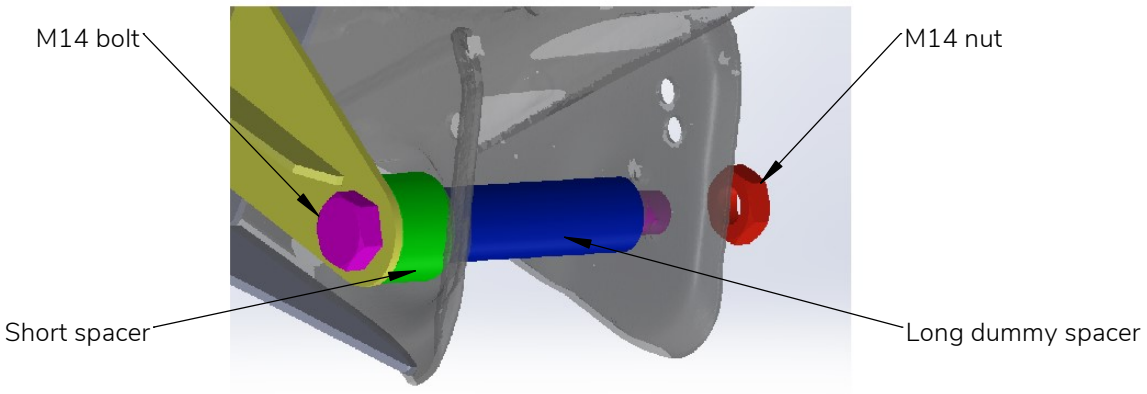
15. Fit the rack relocation insert into the subframe. Check fitment. If it does not fit freely, then find out high spots and cut more. Be sure not to cut too much, otherwise the subframe can deform while welding.

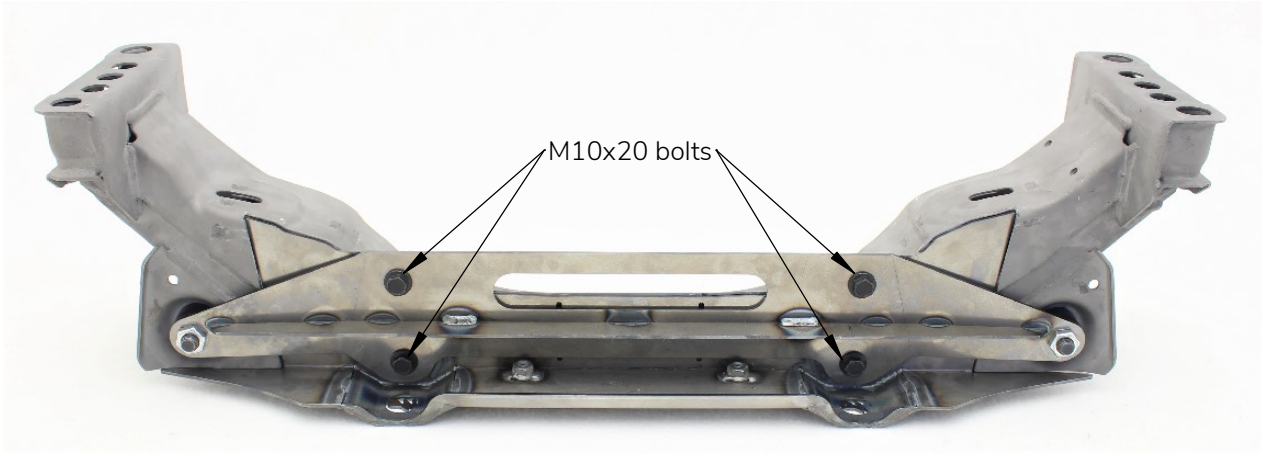
16. To make room for the steering pinion, use the relocation insert to mark the cutout. First mark two points.

17. Draw an arc from these two points approximately 12mm/ 0.5” deep. Remove the marked section.
<u>For LHD cars do this modification to the left side. For RHD cars, to the right.</u>



18. Attach welding jig to relocation insert with M10x20 bolts. Install long dummy spacers between control arm mounts. Use the included shorter spacers and M14 bolts to install the relocation insert/welding jig assembly. Tighten all bolts.





19. With the assembly in place, tack weld the insert from several points. Make sure to tack all corners so the subframe would not deform while welding.

20. Keep the jig in place and fully weld the insert where possible. For extra support, You may temporarily connect the subframe mounts, e.g. with a tube or angle iron. Tube length is approximately 750mm.

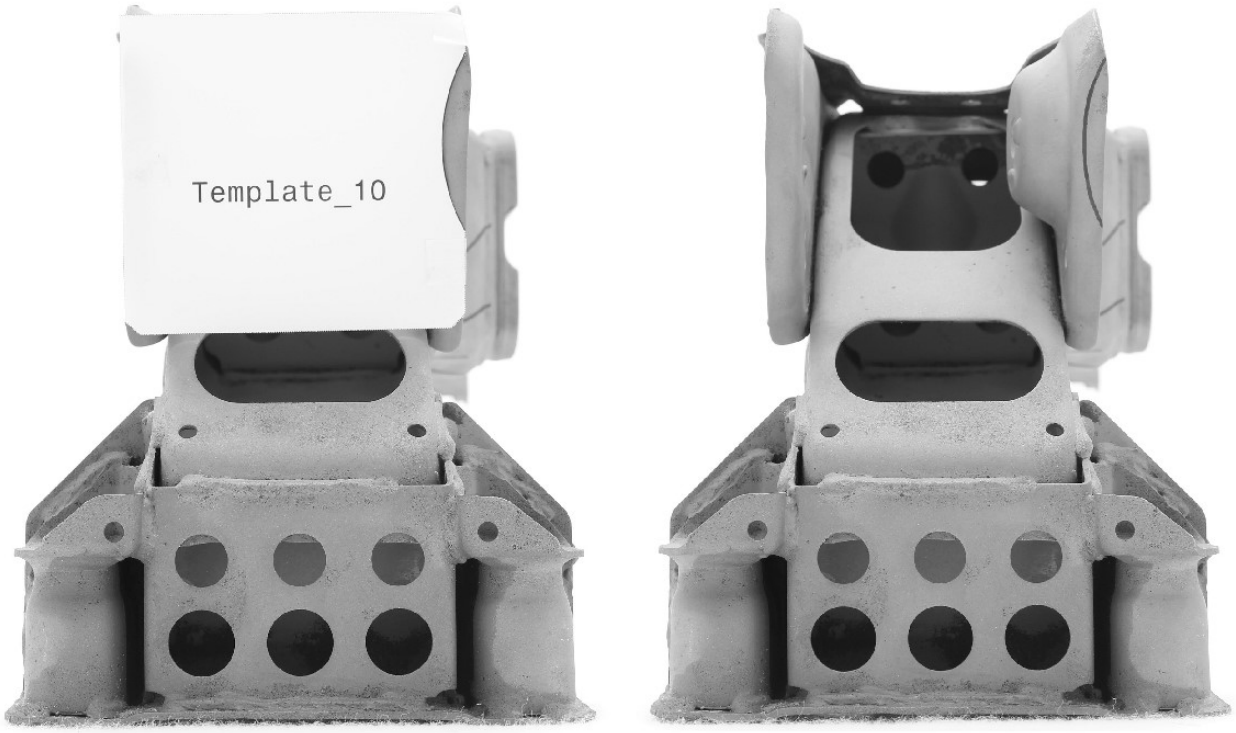
21. DO NOT weld to the threaded bushings. Clearance for the bolts must remain.

22. If possible, weld the inner walls to the relocation insert from the inside.

23. Remove the welding jig but keep the long dummy bushings in place.
Weld all the areas that were obstructed by the jig. Also bend and weld the control arm mount gusset. Avoid overheating the parts to minimize distortions.

24. Grind down the welds from the subframe brace mounting area.

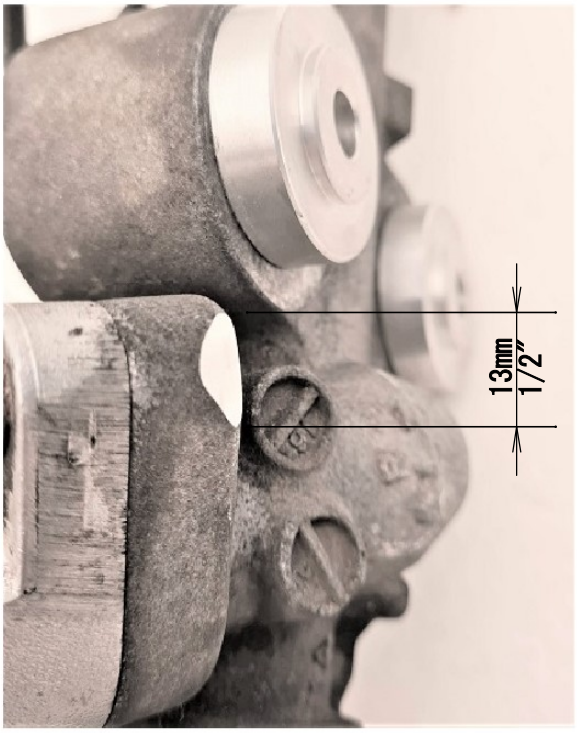
25. Position Template_10 as shown in the picture. Mark the cutting line. Template_10 is symmetrical and could be used on both sides of the subframe. The positioning and marking can be done before any cutting or welding.



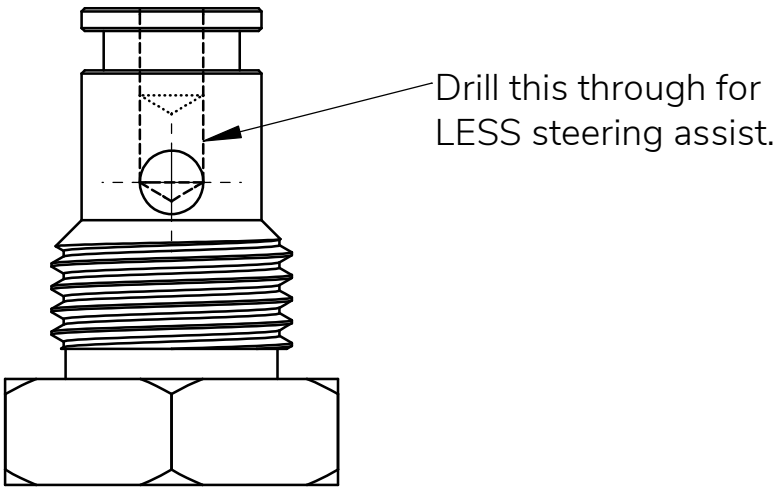
26. Cut the marked section and smooth out any sharp corners. Do this only after welding the subframe.

27. Remove spatter and sharp edges. Apply appropriate coating.

28. Press in the steering rack aluminium bushings and trial fit it to the subframe.
On some models the steering rack housing interferes with the relocation insert. In that case the housing needs to be very slightly modified. Grind a flat as shown in the picture.



29. If Your steering rack is **Electronically Controlled** with solenoid valve on the rack, You can delete this by using the supplied fitting. On most 2006-2008 racks, this modification is required due to fitment issues. By default the fitting is set to maximum assist(lightest steering). If You need less assist(more steering effort), drill the fitting with a 4mm drill until it is through to the radial hole. If You want to fine tune the power assist, You can start with a smaller drill or drill the holes bigger. Stock O-rings can be used, but we recommend using new ones.



30. For some RHD racks, the power steering pressure hose might need modification, e.g. converted to a banjo fitting.

31. For some LHD racks, the upper line from the rotary valve might need modification. If aftermarket engine mounts are used, this may not be necessary.

32. Before installing the rack extender spacer, clean the threads inside the rack. After cleaning use thread lock on the spacer. Hold the rack shaft end with a spanner while torquing the spacer.

33. Fit the steering column extender between the U-joint and steering column as shown on the picture. Tighten all bolts.

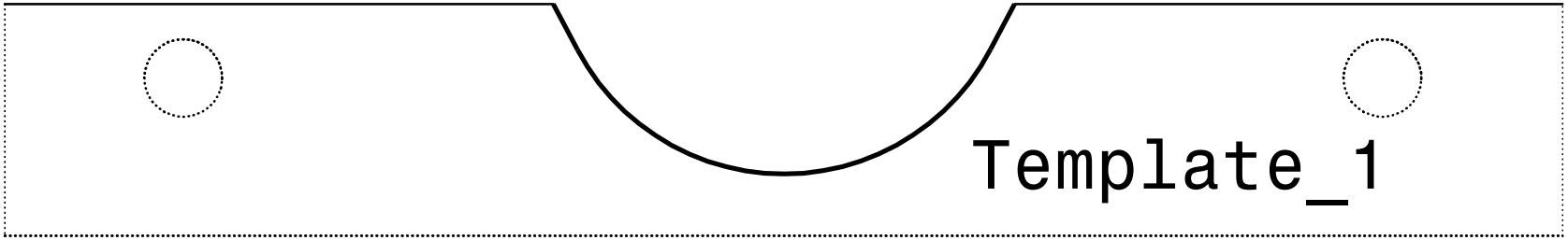
34. Use the shorter M10 welding jig bolts and spacer washers to fit the subframe brace to the modified subframe. Stock Nissan bolts will not fit the modified subframe.

35. If more ground clearance is needed, then the subframe brace can be mounted without spacers, but in that case it needs modification. To fit the brace without spacers, cut the brace at the marked line. Bend back the cut section and trial fit the brace to the car. Repeat until suitable fitment is achieved and weld the brace.
With aftermarket subframe braces the spacers and modification may not be necessary.

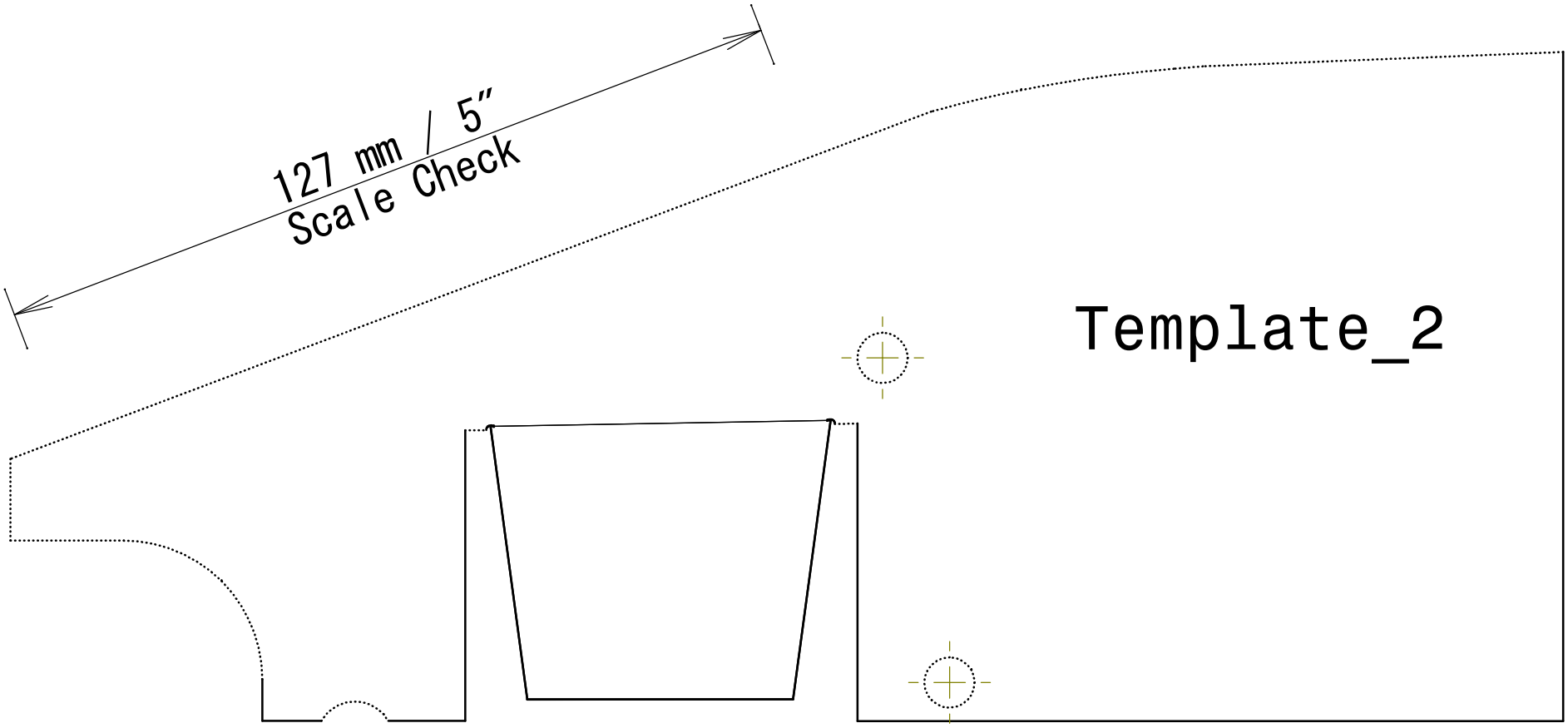
36. To install Wisefab Nissan 350Z Front Drift Angle Lock Kit, the little tabs inside the control arm mounts need to be ground off or pressed flat.

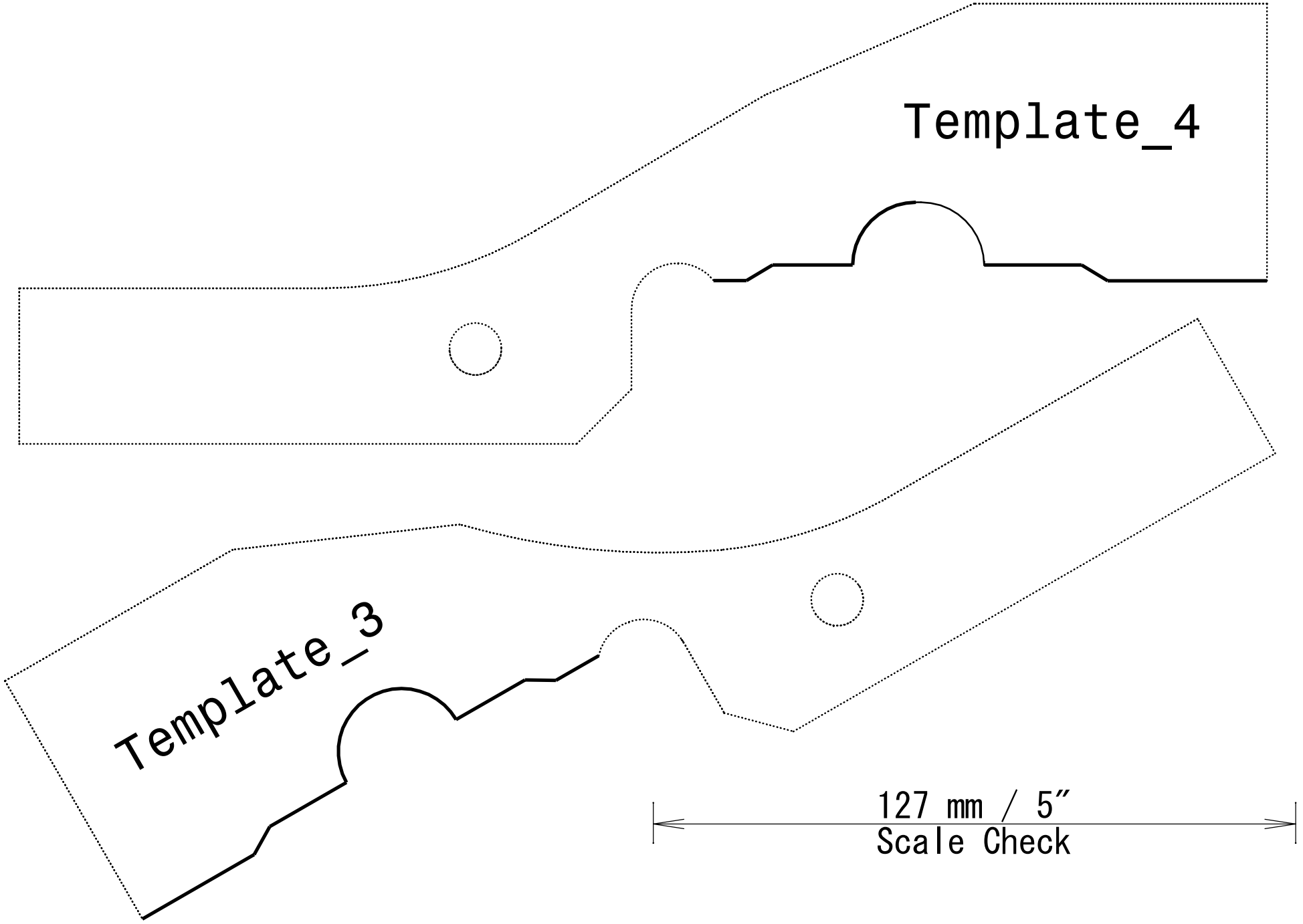
37. Make sure the control arm bolt doesn´t interfere with the steering rack. If necessary, install the control arm bolt from back to front.

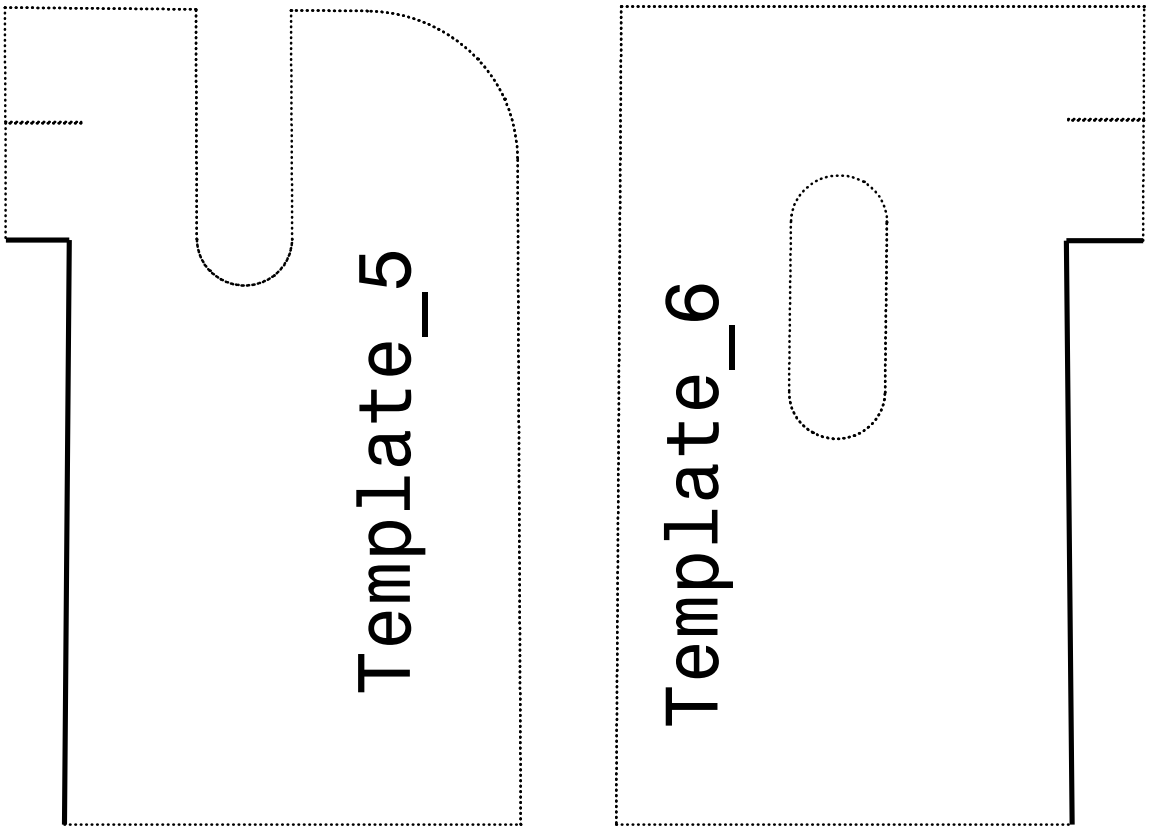
38. Install the black plastic bushing on the rack and assemble kit. M10x90 bolt are used on the clamp, M10x70 bolts with large washers on the aluminium bushings.



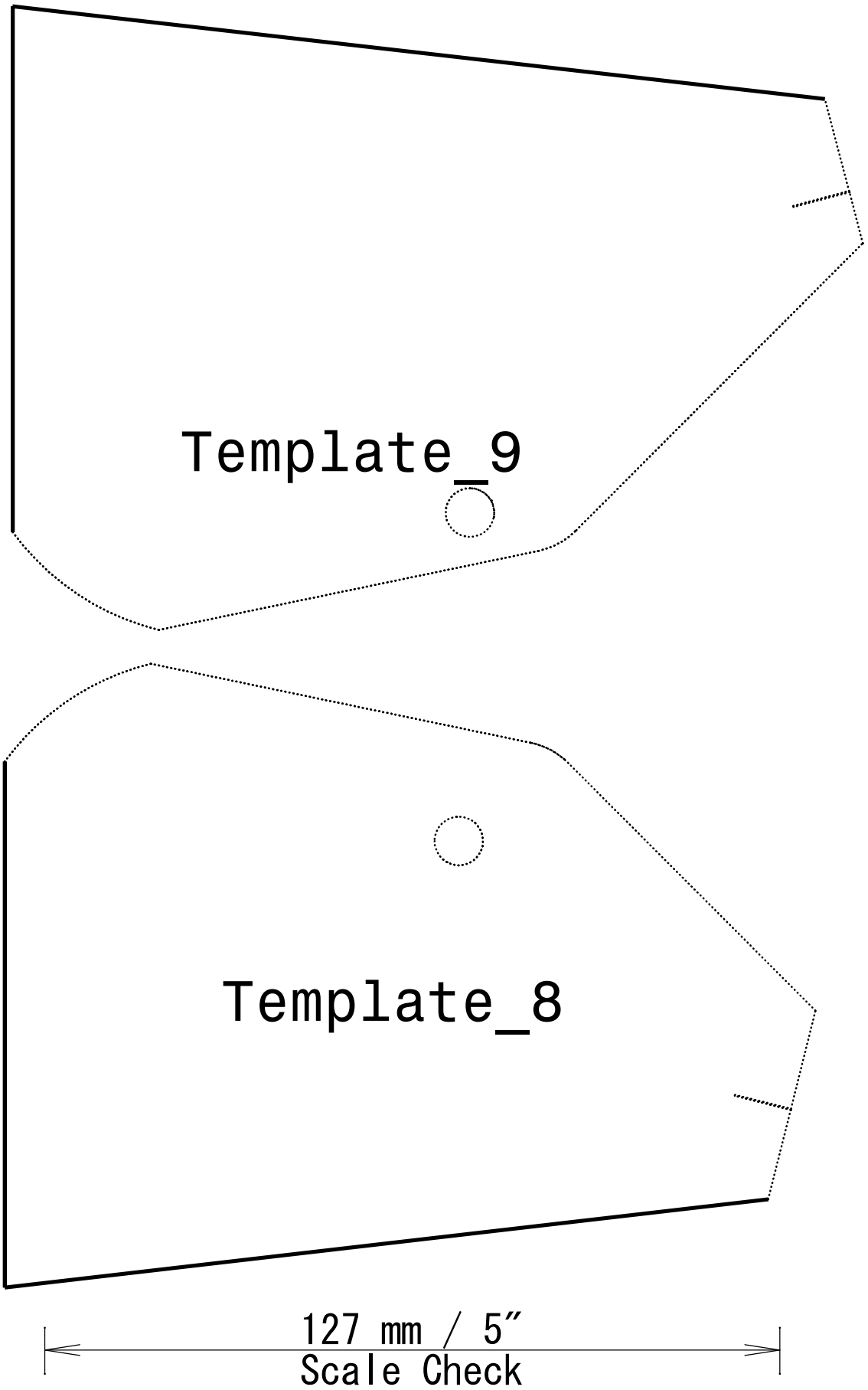
127 mm / 5″
Scale Check

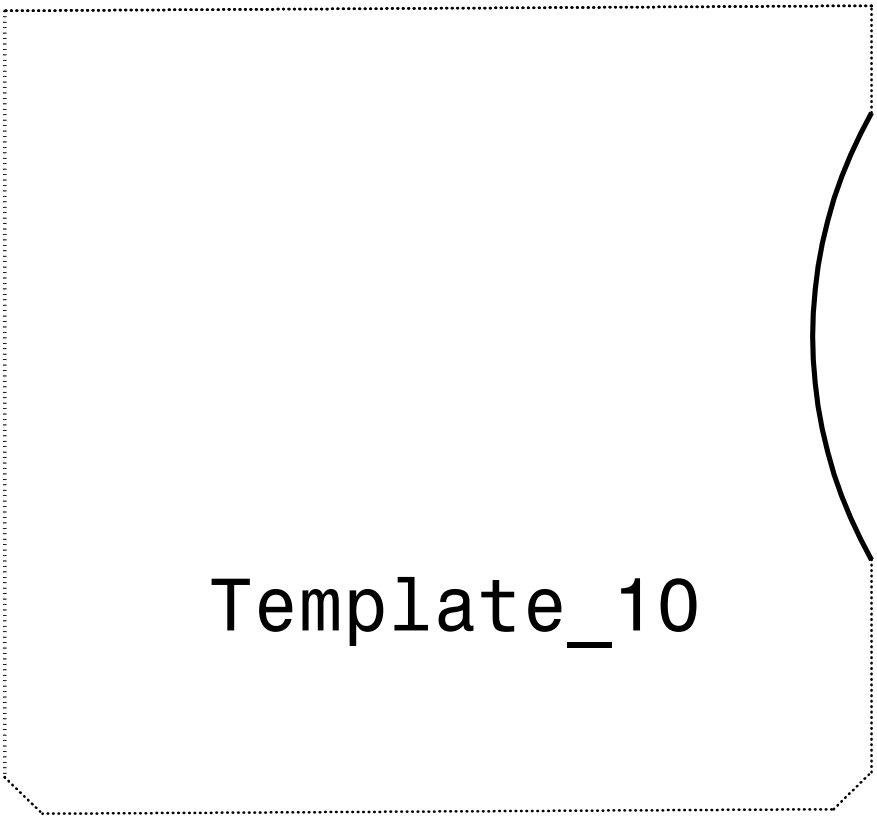

127 mm / 5″
Scale Check
Template_2


Template_4
Template_3
127 mm / 5″
Scale Check



127 mm / 5″
Scale Check


Template_9
Template_8
127 mm / 5″
Scale Check



127 mm / 5″
Scale Check