

<http://www.toyota-4runner.org/members/sp8ball.html>

<http://www.toyota-4runner.org/5th-gen-t4rs/86370-sp8ball%92s-mod-thread-stealing-other-poster%92s-ideas-since-mid-2010-a-6.html#post754964>

Modification: Toytec Top Plate Spacer Lift

Toytec Lifts Front Top Plate Spacer Kit - \$60.00

Hidden Cost: *Front End Alignment is required after the lift (\$75-\$90)*

Difficulty Scale (1 to 10): *Six*

Sp8ball's Personal Intimidation Factor (1 to 10): *Nine (mitigated to a "four" by Antman having already done it, and offering to help)*

Install Time: *2-3 hours*

Reason for Doing It: *Level the rake of the truck to make the front even with the back*

Benefit: *Looks better, and it's cheaper and easier than replacing suspension components (shocks, struts, UCAs, installing coilovers, etc.). And it prepares the truck for new shoes!*

Cons: *It's the hardest mod so far!*

Other Products Considered: *Bilstein 5100s.*

Alright...here's the biggest one so far!

I'd like to start off by saying – again – that I couldn't have done this mod without the guidance and insight provided by this forum. Not only is it full of great ideas, but great people as well. In this particular case, Antman and I discovered that we live about a mile apart, and he offered to not only help me with this mod, but to host me in his garage (with his large collection of tools and jacks and impact guns) to do it! Mad props to Antman.

[Note: Want to know what Antman looks like? That's his arms doing all the work in the pictures. In all fairness, I did the driver's side after this tutorial on the passenger side. With some help.]

The documents posted in this thread ([Modifications, Write-Ups, & Quick Links](#)) (specifically, the TIS FSM sections on the front end suspension) proved invaluable. You have to go through some downloading and a tiny bit of searching to get to it, but it's well worth taking your time and doing a little bit of upfront research.

OK, this write-up is going to be picture heavy for a number of reasons:

1) A picture is worth a thousand words, and I have 30-some pictures to post. That's 30,000+ words I don't have to write. And it has been noted that my posts are "wordy".

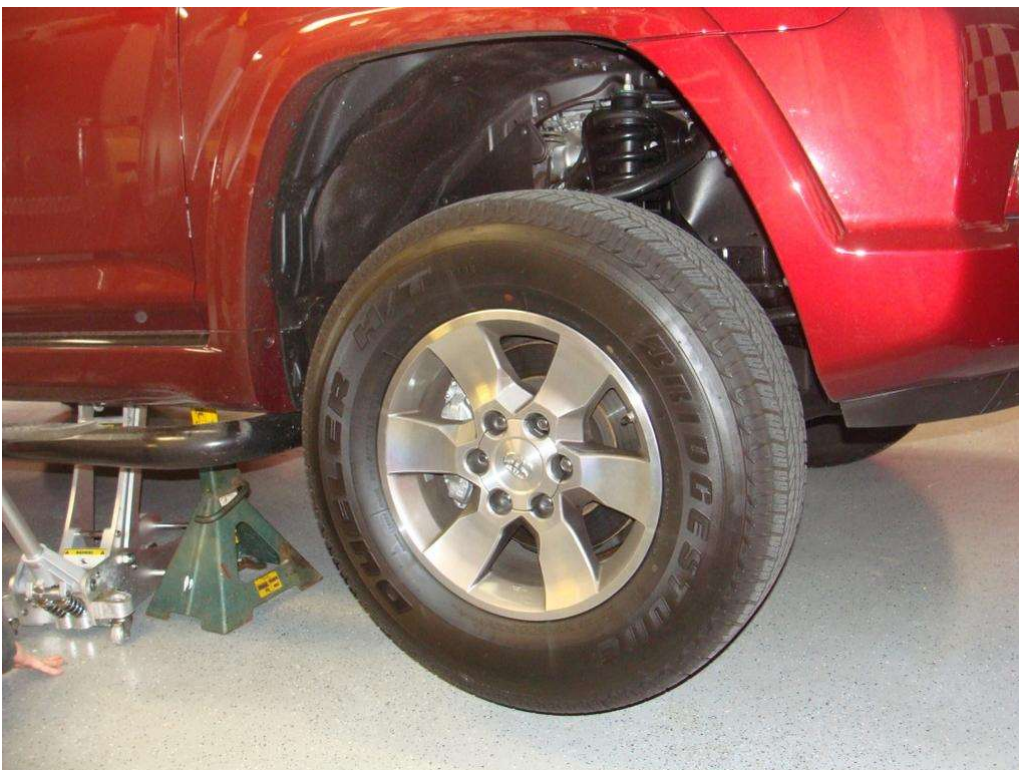
2) There was a lot of discussion on here about needing a spring compressor to do this mod. We're hoping to show how we did it without one.

We'll have before-and-after pictures at the end to show the rake both before and after the spacer lift.

So, let's get started!

Step One: Chock the rear wheels.

Step Two: Jack up the side on which you are going to install the lift. Put a jack stand under the truck and slowly lower the jack. For this series of posts, we are working on the passenger's side. (we started with the passenger's side because it was closest to the coffee pot)



Step Three: Give the opposite side of the car a slight lift, and install another, lower jack stand on that side for stability.



Step Four: remove the six lugs holding the wheels onto the rotors.



Step Five: Remove wheel.

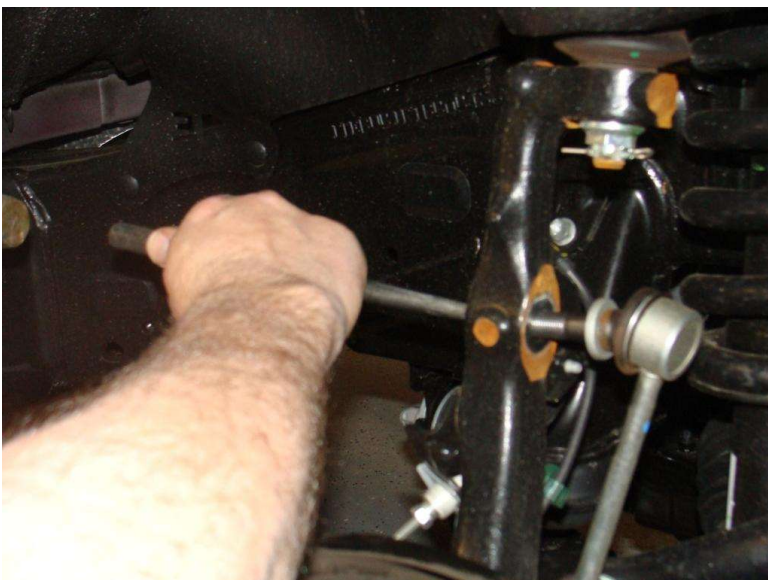
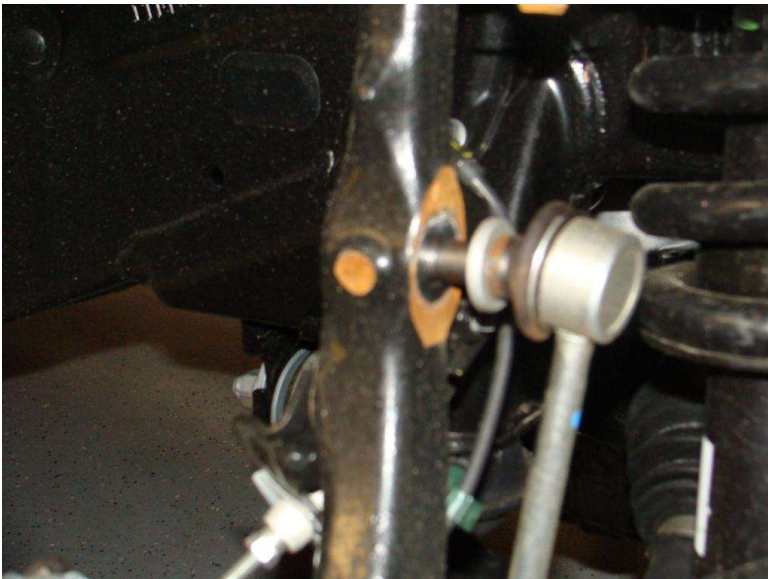
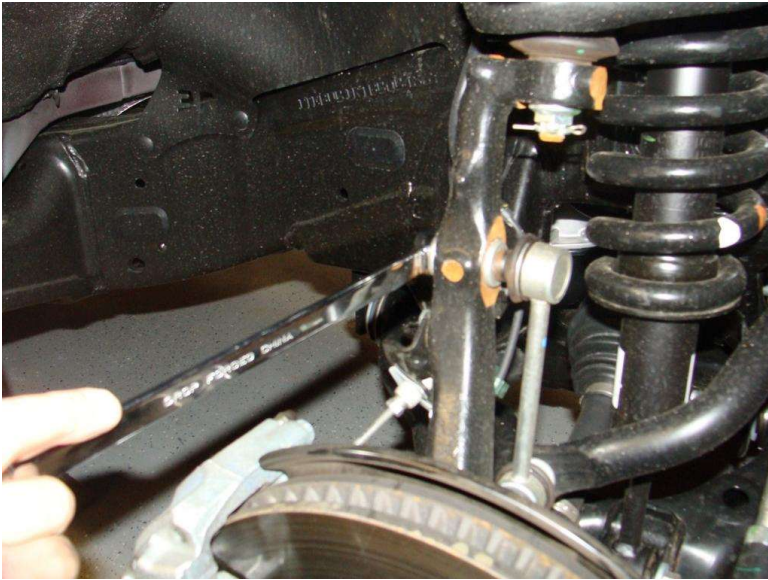


Step six: place the jack under the lower control arm (large metal part of the suspension just behind the rotor) to support it during the next few steps, because you'll want that slight upward pressure on the spring while you do step 7.

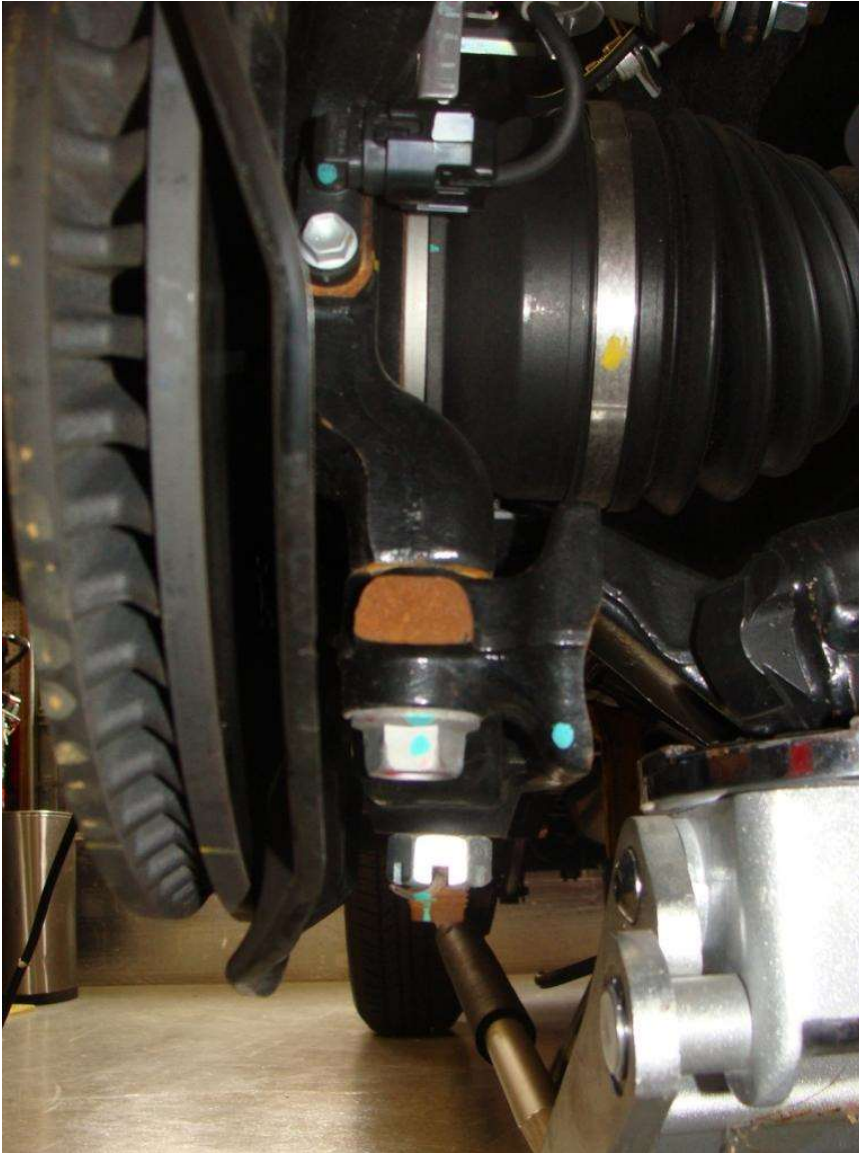
Step seven: Loosen and remove the nut, cushion retainer (a metal washer), and shock absorber cushion (a thick rubber disk).



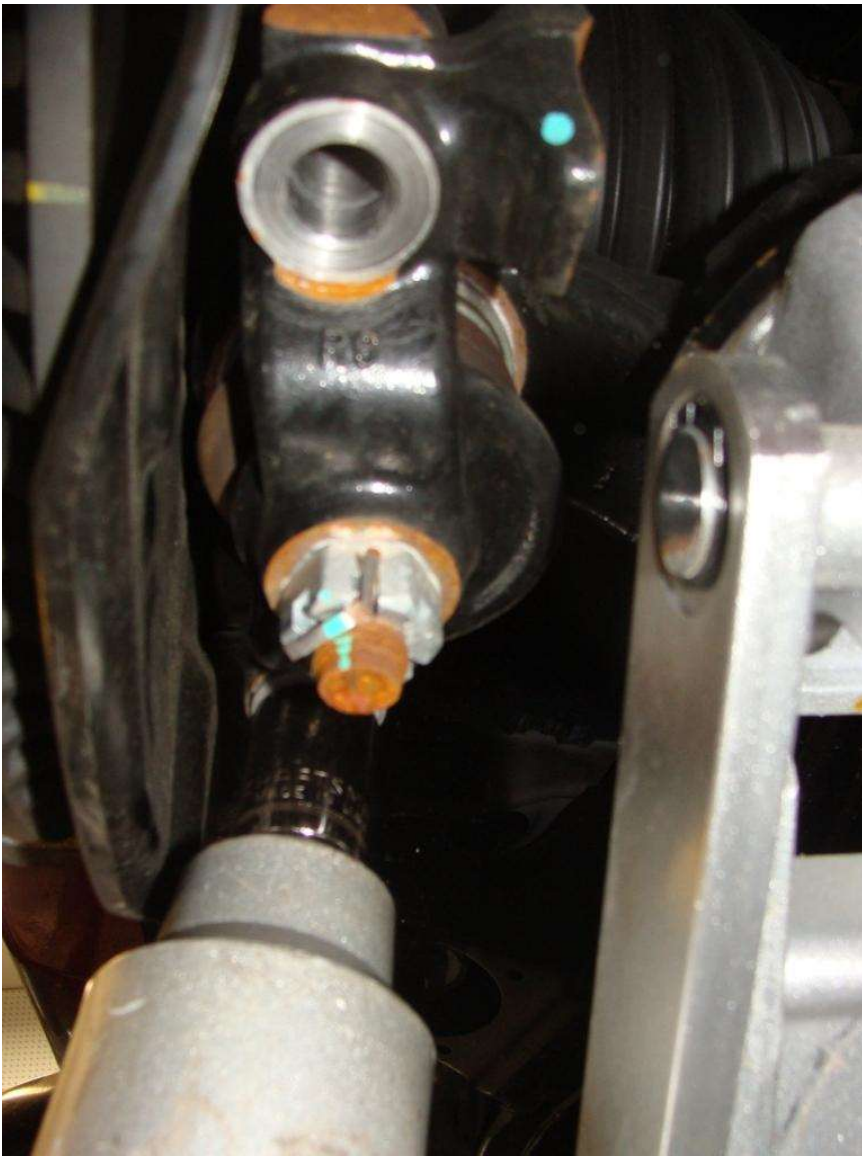
Step eight: Remove the nut and disconnect the stabilizer link from the steering knuckle. You may need to use a 6mm allen wrench to hold the stud if it rotates with the nut.



Step nine: IMPORTANT NOTE about this step: In step 6, we put the jack under the lower control arm. It should still be there. If somebody takes these next 2 bolts out without being careful and following directions (to quote Antman) "it could wind up being a bad, bad day." Remove the two large bolts just behind the rotor (but not the odd shaped one between the two of them). Now you slowly lower the jack to release the spring pressure.



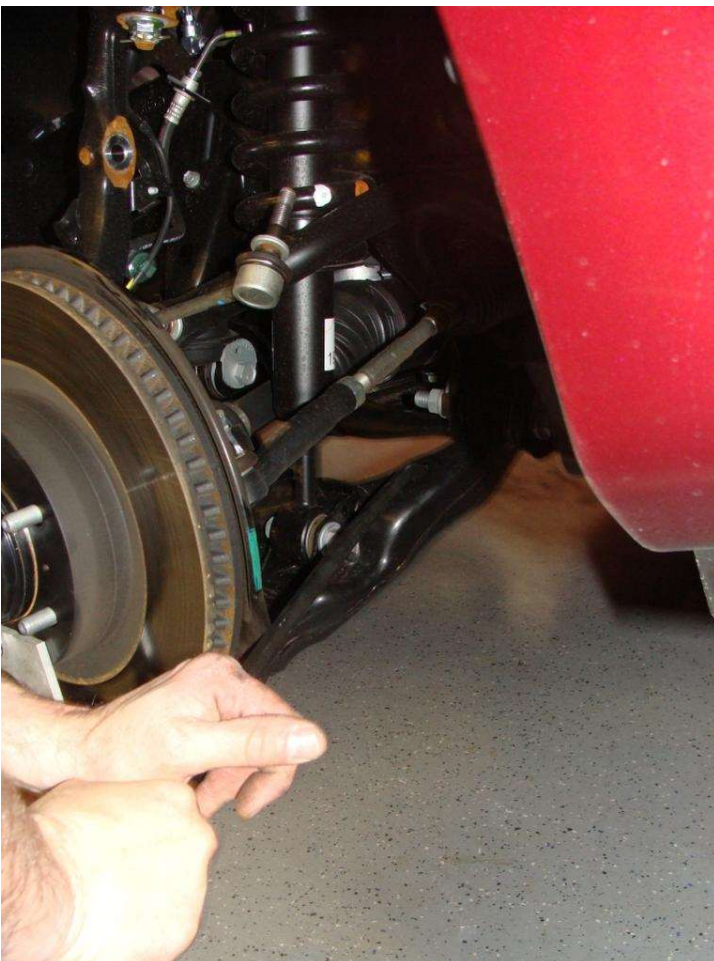




Step ten: Prop up the rotor so it doesn't fall and ruin your CV joint.



Step eleven: Insert a pry bar into one of the holes in the arm where the bottom of the shock absorber is mounted and push down on it to relieve the pressure on the bolt at the bottom of the shock.





(note, these pry bar openings are on both legs of the suspension system...you can use either side)



Step twelve: Remove bolt, nut, and washer from bottom of shock absorber.



Step thirteen: Apply downward pressure to pry bar again, and work the shock and springs out of the top support.

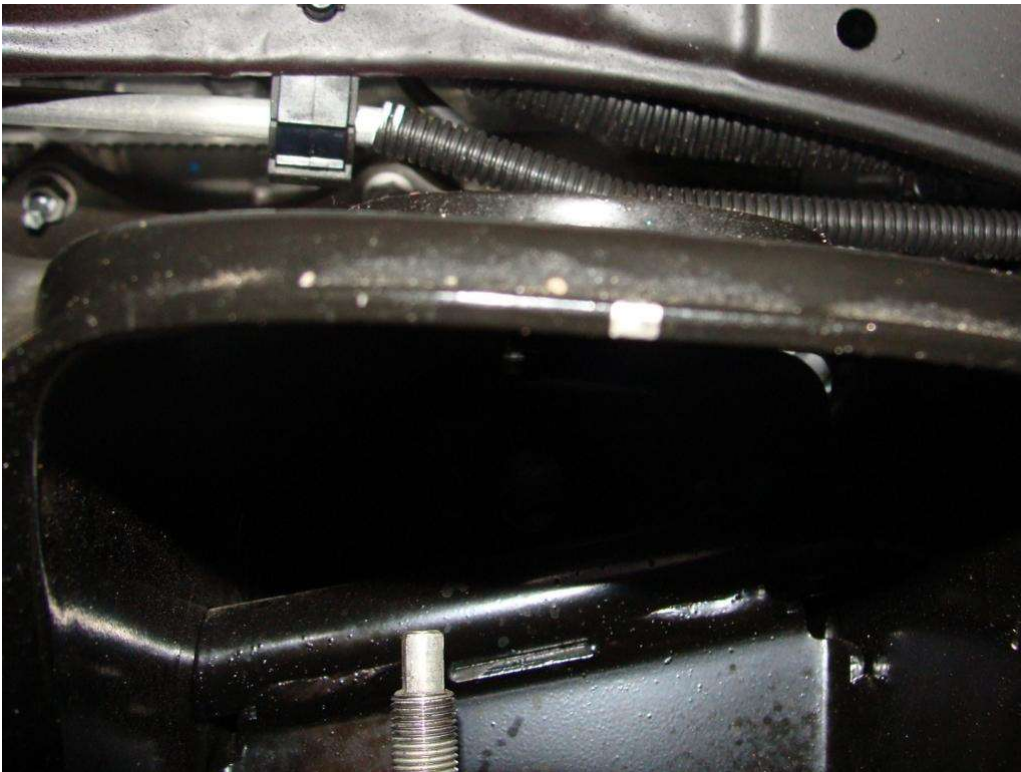


Step fourteen: This leaves three nuts that you have to remove from the three studs holding the top cushion in place. Here are two of the three studs in question (third is in the back):



Step fifteen: Loosen nuts from studs...but DON'T take it apart yet.

Step sixteen: Before disassembling this cushion from the top of the shock absorber housing, hit it with a silver Sharpie or something that can mark alignment for reinstallation.

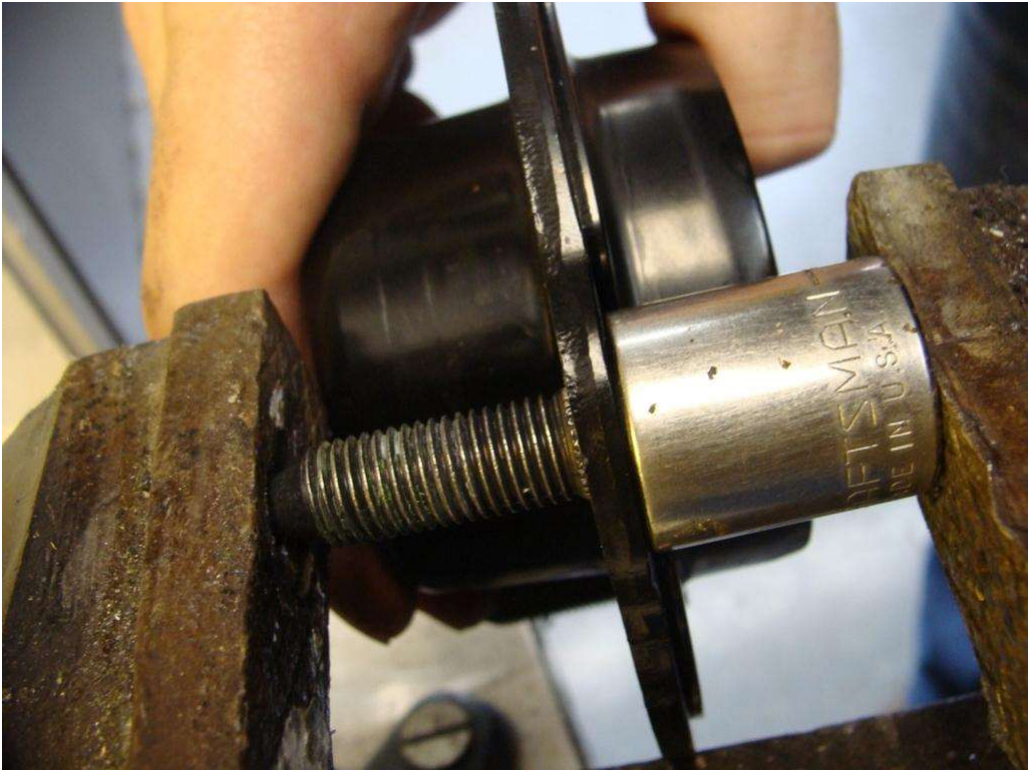


Step seventeen: Remove nuts from studs and take out cushion assembly.



Step eighteen: Press out OEM studs from rubber cushion using a vise.





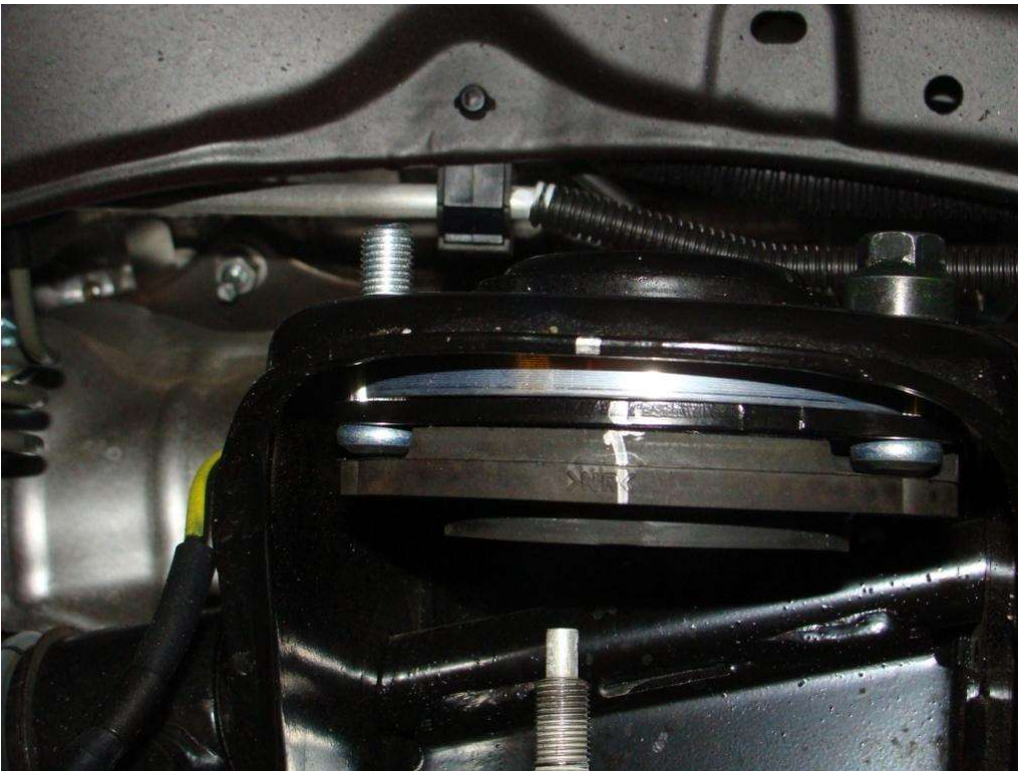
Step nineteen: Press new studs (from Toytec) into holes.



Step twenty: Place metal spacer lift onto assembly.



Step twenty-one: After getting alignment (silver sharpie marks) right, reinsert shock absorber cushion assembly (with spacer) into top of shock absorber housing. Tighten the three nuts to 47 ft-lbs.



Step twenty-two: Work top end of shock absorber back through hole in top of housing and "seat" coils onto rubber shock absorber cushion.



Step twenty-three: Work pry bar again, and apply pressure to allow the bottom of the shock absorber find it's seating location.



Step twenty-four: Move jack back into position behind rotor to apply pressure to springs and further push the top stud into position to receive hardware.



Step twenty-five: Secure rubber shock absorber cushion, retainer, and nut to top of shock absorber at 18 ft-lbs.



Step twenty-six: Secure bottom of shock absorber with bolt, washer, and nut. (70 ft-lbs of torque)

Step twenty-seven: Re-secure stabilizer link. (52 ft-lbs of torque)



Step twenty-eight: Put **red loctite** on the two bolts that go into the lower control arm. Re-install two bolts from just behind rotor. (165 ft-lbs of torque)



Step twenty-nine: Reattach wheel, but don't overtighten.



Step thirty: Lower truck and remove jacks and jackstands. Torque six wheel lug nuts to 83 ft-lbs.



Step thirty-one: Remove rear chocks.