



How to change front  
suspension strut on  
**Toyota RAV4 II** –  
replacement guide

## VIDEO TUTORIAL



### Important!

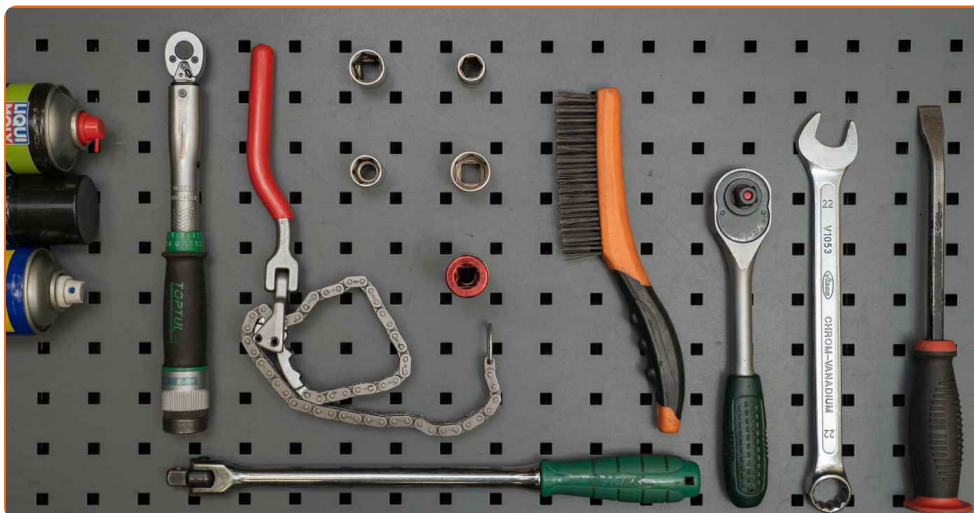
This replacement procedure can be used for:

TOYOTA RAV 4 II (CLA2\_, XA2\_, ZCA2\_, ACA2\_) 1.8 (ZCA25\_, ZCA26\_), TOYOTA RAV 4 II (CLA2\_, XA2\_, ZCA2\_, ACA2\_) 2.0 D 4WD (CLA20\_, CLA21\_), TOYOTA RAV 4 II (CLA2\_, XA2\_, ZCA2\_, ACA2\_) 2.4 4WD, TOYOTA RAV 4 II (CLA2\_, XA2\_, ZCA2\_, ACA2\_) 2.4 4WD (ACA23, ACA22), TOYOTA RAV 4 II (CLA2\_, XA2\_, ZCA2\_, ACA2\_) 2.4 4WD (ACA23)

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The steps may slightly vary depending on the car design.

**REPLACEMENT: SUSPENSION STRUT – TOYOTA RAV4  
II. LIST OF THE TOOLS YOU'LL NEED:**



- Wire brush
- WD-40 spray
- Brake cleaner
- Ceramic grease
- Copper grease
- Torque wrench
- Combination spanner #19
- Drive socket # 12
- Drive socket # 14
- Drive socket # 19
- Drive socket # 22
- 19-mm strut nut socket
- Wheel impact socket #19
- HEX bit no.H6.
- Ratchet wrench
- Crow bar
- Hydraulic transmission jack
- Fender cover
- Wheel chock

**BUY TOOLS**

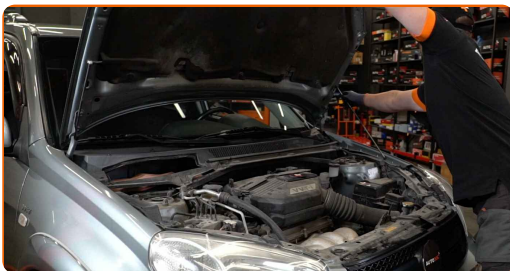
Replacement: suspension strut – Toyota RAV4 II. Tip from AUTODOC experts:

- Both shock struts of the front suspension should be replaced simultaneously.
- The replacement procedure is identical for the left and right shock struts of the front suspension.
- Please note: all work on the car – Toyota RAV4 II – should be done with the engine switched off.

**CARRY OUT REPLACEMENT IN THE FOLLOWING ORDER:**

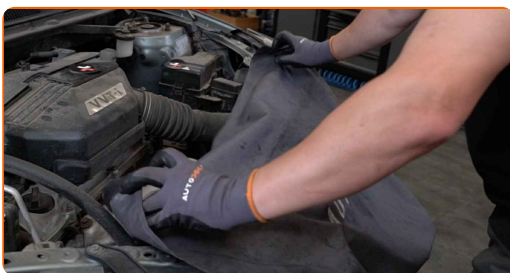
1

Open the bonnet.



2

Use a fender protection cover to prevent damaging paintwork and plastic parts of the car.



3

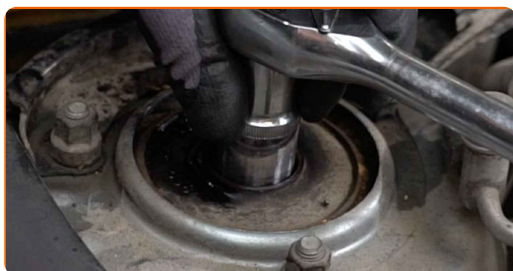
Remove the cap from the suspension strut mount. Use a crowbar.



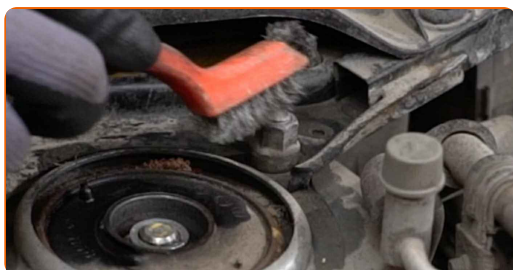
**4** Clean the strut piston rod. Use a wire brush. Use WD-40 spray.



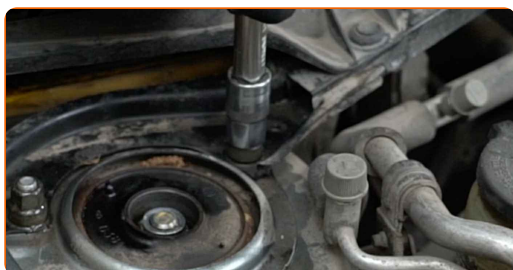
**5** Loosen the suspension strut rod nut. Don't unscrew it completely. Use a drive socket #22. Use a ratchet wrench.



**6** Clean the fasteners of the shock strut upper mount. Use a wire brush. Use WD-40 spray.



**7** Loosen the upper fasteners of the suspension strut. Use a drive socket #14. Use a ratchet wrench.



Replacement: suspension strut – Toyota RAV4 II. Tip from AUTODOC:

- Do not completely unscrew the upper fasteners as they may hold also other suspension components.

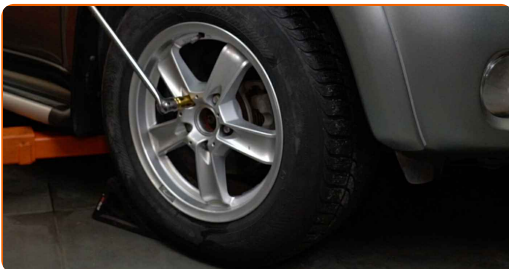
8

Secure the wheels with chocks.



9

Loosen the wheel mounting bolts. Use wheel impact socket #19.



10

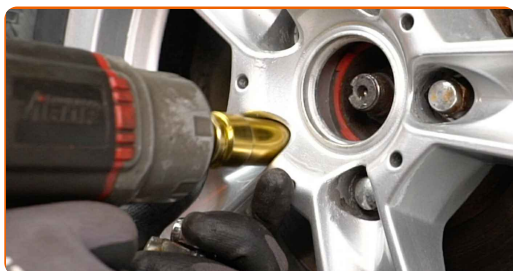
Raise the car.

Replacement: suspension strut – Toyota RAV4 II. AUTODOC experts recommend:

- If you are using a jack, make sure it rests on a flat surface without any unevenness.
- Be sure to additionally secure the car with jack stands.

11

Unscrew the wheel bolts.



**AUTODOC recommends:**

- Warning! To avoid injury, hold the wheel while unscrewing the fastening bolts.  
Toyota RAV4 II

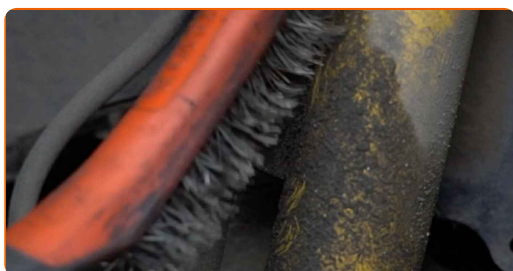
12

Remove the wheel.



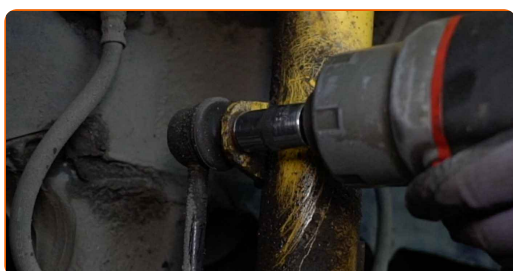
13

Clean the sway bar link fastener. Use a wire brush. Use WD-40 spray.



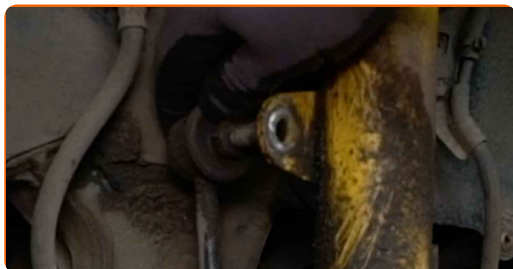
14

Unscrew the fastener connecting the stabilizer link to the shock strut. Use a drive socket #14. Use a ratchet wrench.





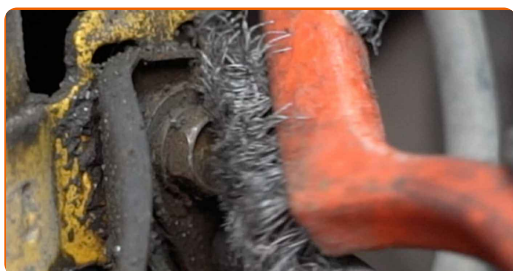
**15** Remove the stabilizer rod. Use a crowbar.



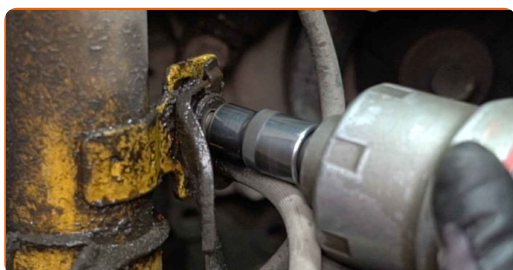
**AUTODOC recommends:**

- Examine stabiliser bushes. Replace them if needed.

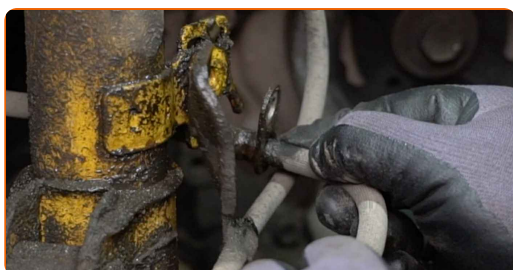
**16** Clean the fastener that connects the brake hose bracket to the suspension strut. Use a wire brush. Use WD-40 spray.



**17** Unscrew the fastener that connects the brake hose bracket to the suspension strut. Use a drive socket #12. Use a ratchet wrench.

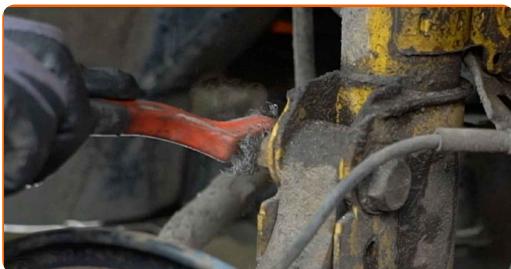


**18** Remove the brake hose bracket.

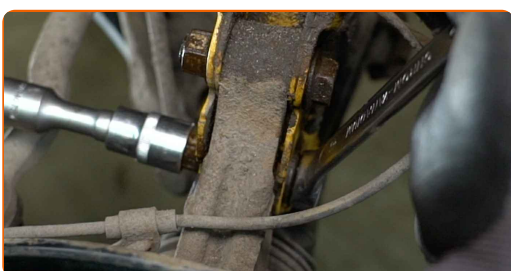




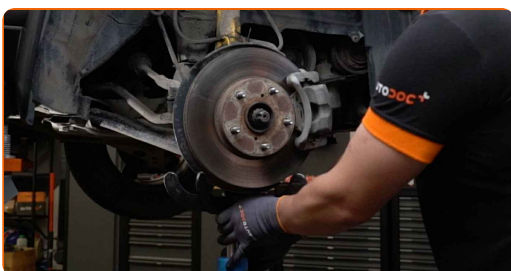
**19** Clean the fasteners connecting the shock strut to the steering knuckle. Use a wire brush. Use WD-40 spray.



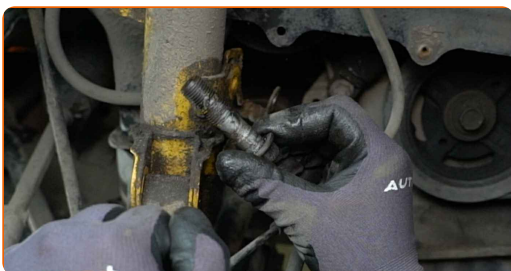
**20** Unscrew the fasteners connecting the suspension strut to the steering knuckle. Use a combination spanner #19. Use a drive socket #19. Use a ratchet wrench.



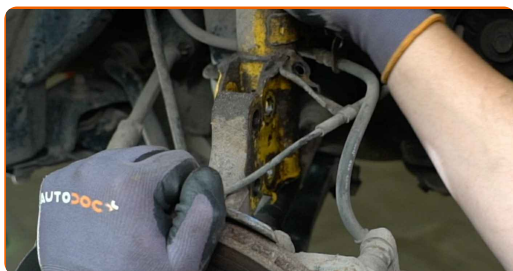
**21** Prop up the steering knuckle. Use a hydraulic transmission jack.



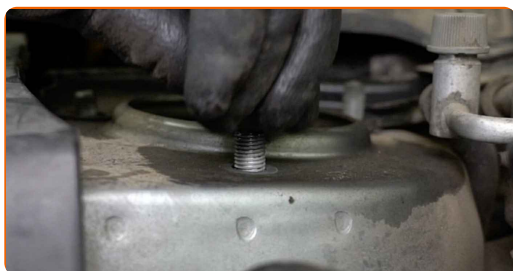
**22** Remove the fastening bolts.



**23** Disconnect the steering knuckle from the shock absorber strut.



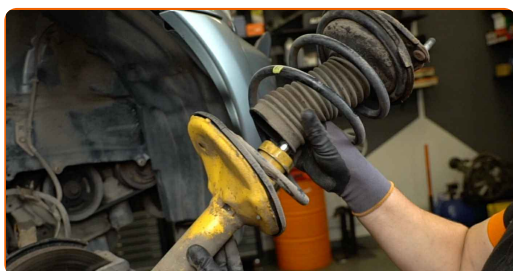
**24** Unscrew the upper fasteners of the shock strut.



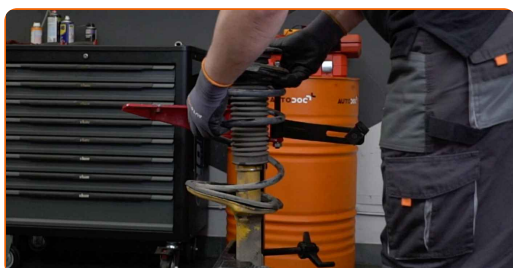
**AUTODOC recommends:**

- Important! Hold the suspension strut while unscrewing the fastening bolts.  
Toyota RAV4 II

**25** Remove the suspension strut.



**26** Set the suspension strut on the spring compressor tool.

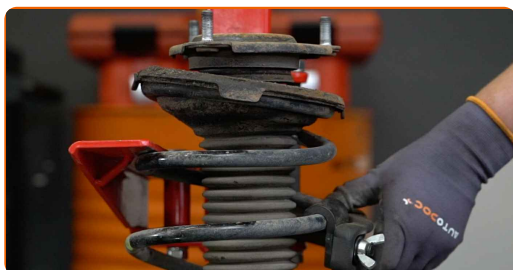


**AUTODOC recommends:**

- Note that when using a spring compressor, spring coils need to be securely gripped, compressing the spring on the opposite sides.
- Ensure the correct position of the spring in the retainer.
- Make sure that the spring coils tightly entered the lock handles.

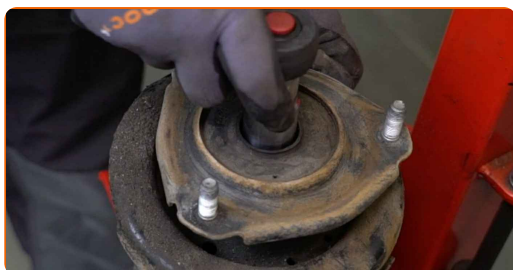
**27**

Compress the spring.



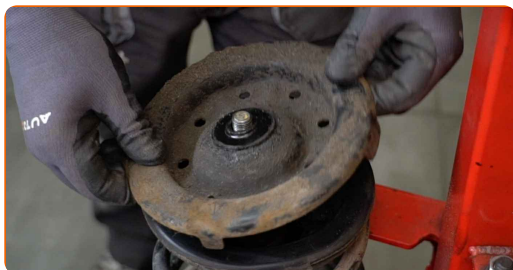
**28**

Remove the strut piston rod nut. Use a drive socket #22. Use a ratchet wrench.

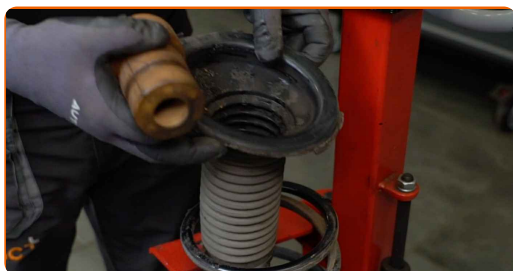


**29**

Remove the top strut mount.



**30** Remove the shock absorber dust cap and the bump stop.



**AUTODOC recommends:**

- Replacement: suspension strut – Toyota RAV4 II. Carefully inspect the mount, the boot, and the bump stop of the shock absorber. Replace if necessary.

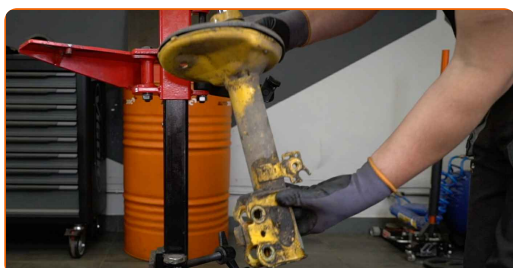
**31** Release the coil spring.



**32** Remove the spring.



**33** Remove the old shock absorber from the hydraulic coil spring compressor.



Replacement: suspension strut – Toyota RAV4 II. Professionals recommend:

- Before installing a new shock absorber you should pump it manually 3-5 times.

34

Install the new shock absorber on the hydraulic coil spring compressor.



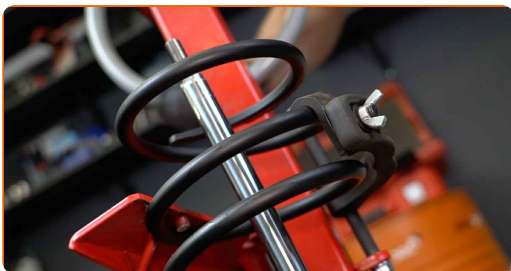
35

Install the spring on the shock absorber.



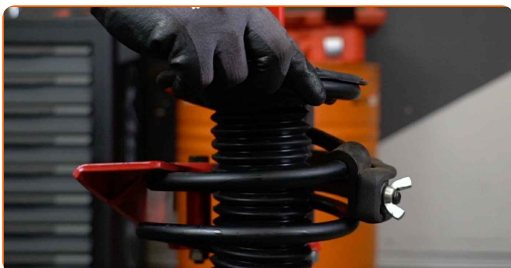
36

Compress the spring.



37

Install the dust sleeve and the bump stop on the new shock absorber.

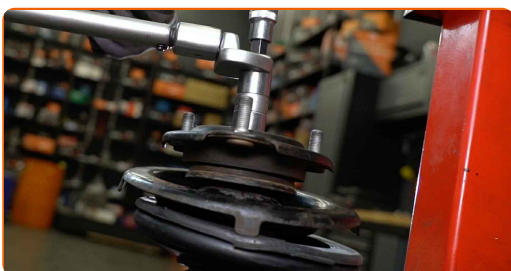




**38** Install the upper strut mount and the strut mount bearing.



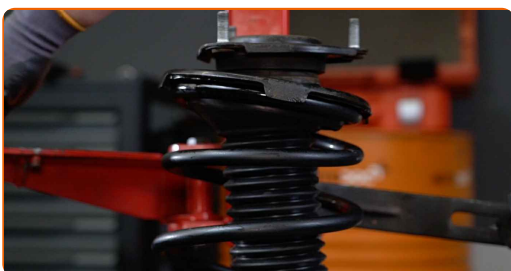
**39** Tighten the shock strut piston rod nut. Use a 19-mm strut nut socket. Use HEX No.H6. Use a torque wrench. Tighten it to 47 nm torque.



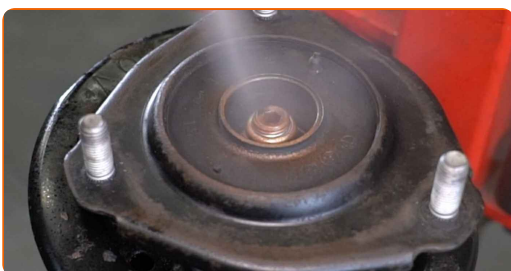
**AUTODOC recommends:**

- Check to make sure the spring is positioned correctly. Avoid its misalignment.

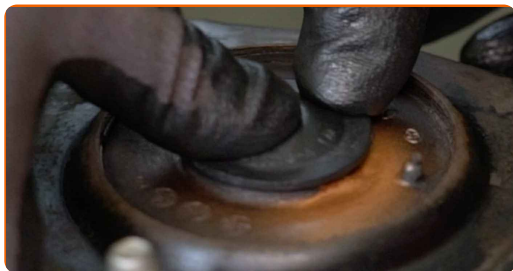
**40** Decompress the spring.



**41** Treat the shock strut rod. Use copper grease.



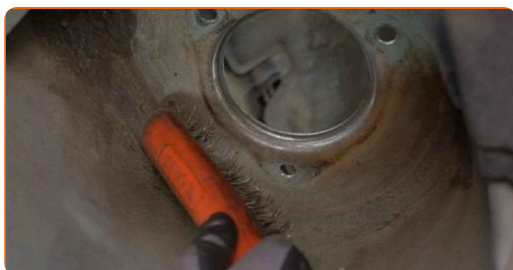
**42** Install the cap on the suspension strut mount.



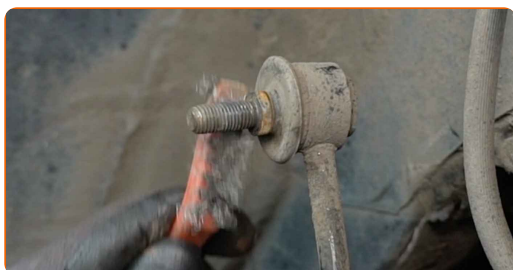
**43** Remove the assembled shock strut.



**44** Clean the mounting seats of the shock strut. Use a wire brush. Use WD-40 spray.



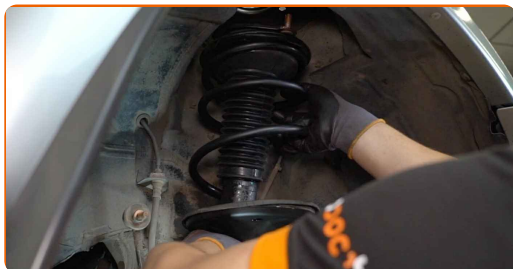
**45** Clean the sway bar link fastener. Use a wire brush.



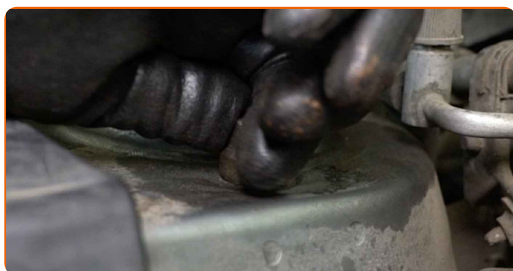
**46** Treat the fastener that connects the sway bar link to the suspension strut. Use copper grease.



**47** Install the shock strut into the wheel arch.



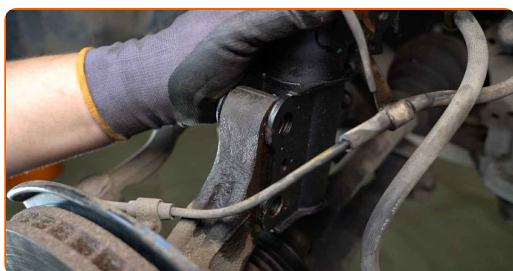
**48** Secure the upper fasteners of the shock strut. Do not tighten it.



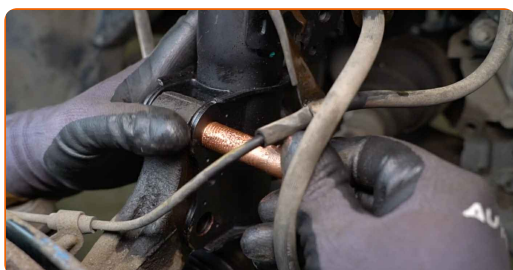
**AUTODOC recommends:**

- Toyota RAV4 II – To avoid injury, hold the suspension strut while screwing in the fastening bolts.

**49** Fix the shock absorber strut on the steering knuckle.



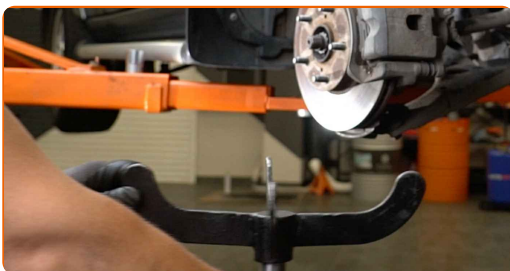
**50** Install the fastening bolts.



- 51** Tighten the lower suspension strut fasteners. Use a combination spanner #19. Use a drive socket #19. Use a ratchet wrench.



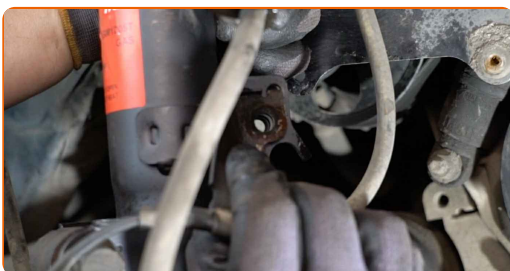
- 52** Remove the support from under the steering knuckle.



**AUTODOC recommends:**

- Replacement: suspension strut – Toyota RAV4 II. Lower the transmission jack smoothly, without jerks, to avoid damaging components and mechanisms.

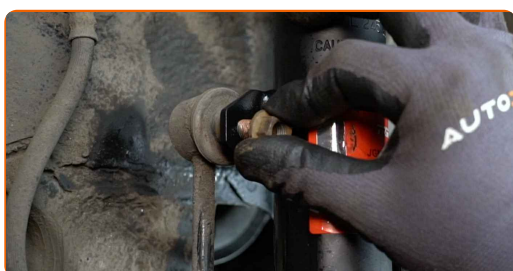
- 53** Install the brake hose bracket.



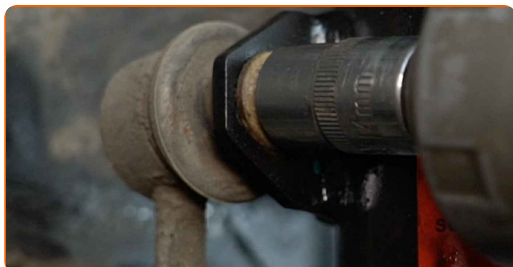
- 54 Tighten the fastener that connects the brake hose bracket to the suspension strut. Use a drive socket #12. Use a torque wrench. Tighten it to 10 Nm torque.



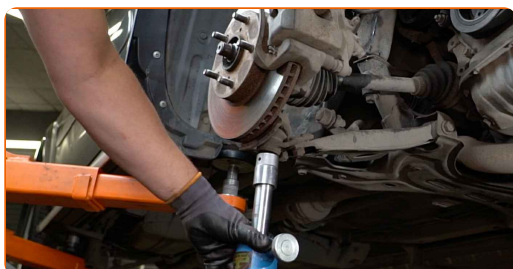
- 55 Install the transverse stabilizer link. Use a crowbar.



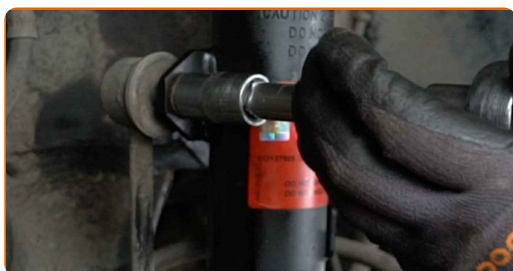
- 56 Screw in the fastener connecting the sway bar link to the suspension strut. Use a drive socket #14. Use a ratchet wrench.



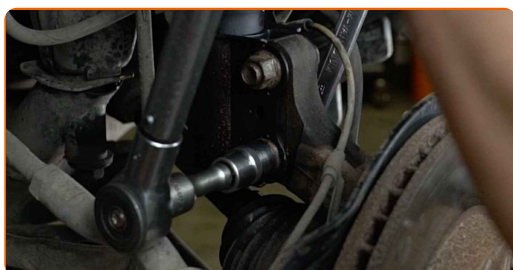
- 57 Prop up the steering knuckle. Use a hydraulic transmission jack.



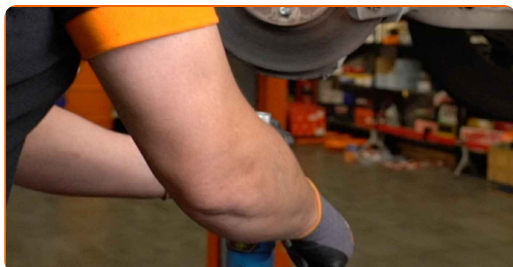
- 58** Tighten the fastener connecting the stabilizer link to the shock strut. Use a drive socket #14. Use a torque wrench. Tighten it to 44 Nm torque.



- 59** Tighten the lower fasteners connecting the shock strut to the steering knuckle. Use a combination spanner #19. Use a drive socket #19. Use a torque wrench. Tighten it to 143 Nm torque.



- 60** Remove the support from under the steering knuckle.



**AUTODOC recommends:**

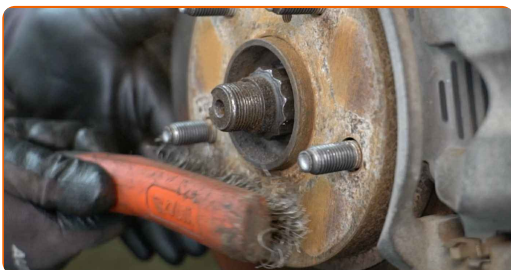
- Lower the hydraulic transmission jack smoothly, without jerks, to avoid damaging assemblies and mechanisms.

- 61** Treat the fastener that connects the sway bar link to the suspension strut. Use copper grease.

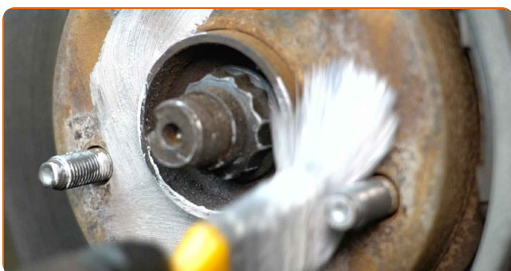
**62** Treat the lower fasteners that connect the suspension strut to the steering knuckle. Use copper grease.

**63** Treat the fastener that connects the brake hose bracket to the suspension strut. Use copper grease.

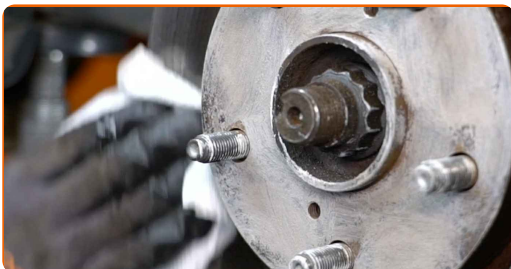
**64** Clean the wheel rim mounting seat. Use a wire brush.



**65** Treat the surface where the brake disc contacts the wheel rim. Use ceramic grease.



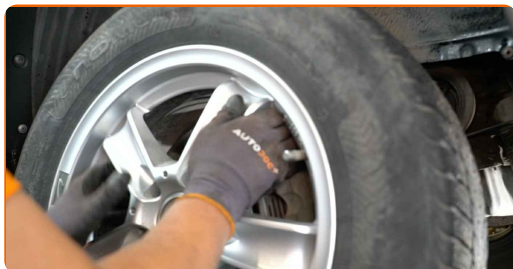
**66** Clean the brake disk surface. Use a brake cleaner.



**AUTODOC recommends:**

- Replacement: suspension strut – Toyota RAV4 II. After applying the spray, wait a few minutes.

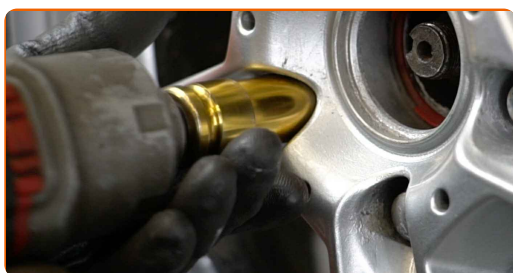
**67** Install the wheel.



**AUTODOC recommends:**

- Important! Hold the wheel while screwing in the fastening bolts. Toyota RAV4 II

**68** Screw in the wheel bolts. Use wheel impact socket #19.



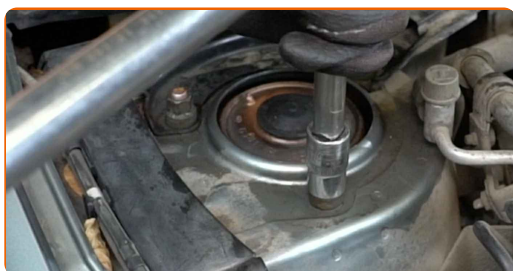
**69** Lower the car and working in a cross order, tighten the wheel bolts. Use wheel impact socket #19. Use a torque wrench. Tighten it to 103 Nm torque.



**70** Remove the jacks and chocks.

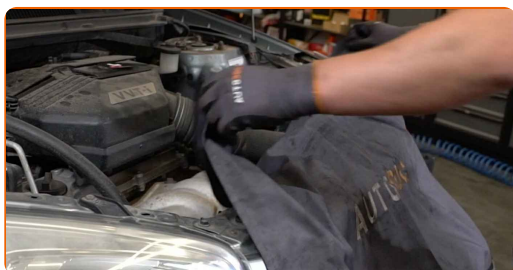


**71** Tighten the upper fasteners of the shock strut. Use a drive socket #54. Use a torque wrench. Tighten it to 50 Nm torque.



**72** Treat the shock strut fasteners. Use copper grease.

**73** Remove the fender protection cover.



**74** Close the hood.



**WELL DONE!** 

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