

AS-35211 (Conjunto de eje de engranaje)



Retire AS-35211 (Conjunto de eje de engranaje)

Tiempo estimado de retirada: 45 minutos

Herramientas necesarias:

- Llave hexagonal - 3 mm
- Llave hexagonal - 4 mm
- Llave hexagonal - 5 mm
- Martillo de plástico
- Destornillador - Pozidriv PZ2
- Destornillador - ranura, 5 mm
- Llave inglesa - 8 mm
- Llave inglesa - 13 mm
- Llave inglesa - 20 mm
- Tirador
- Alicates

Preparación:

- Retire AS-35205 (SDG de la parte superior de la hoja) / AS-35646 (DDG de la parte superior de la hoja)[as-35205-sheet-top-sdg---as-35646-sheet-top-ddg-.html#UUID-2653ba5f-4e21-b730-9d1e-f6dd04791b3a_UUID-9a96252c-e093-b3f9-9d3b-4de2dade2faf]
- Retire AS-35011 (Hoja trasera)[as-35011-r5---as-35942-r5---sheet-rear-.html#UUID-3cfa3d6f-2d13-f6a1-bd8c-29067174afcf_UUID-56eb0901-be2b-17b1-005e-ab3076196808]
- Quitar AS-35012 (Hoja derecha)[as-35012-r5---as-35943-r5---sheet-right-.html#UUID-4a74965f-f8e8-94be-875d-def38189c946_UUID-26b3d846-4d07-4a61-998c-ccafd5b19d1e]
- Quitar AS-35013 (Hoja izquierda)[as-35013-r5---as-35944-r5---sheet-left-.html#UUID-d0ebc0b5-9fb8-9680-1c2d-4772ebf7bf2d_UUID-9cf8dd0f-6f60-698e-6f1e-7a681d98068c]

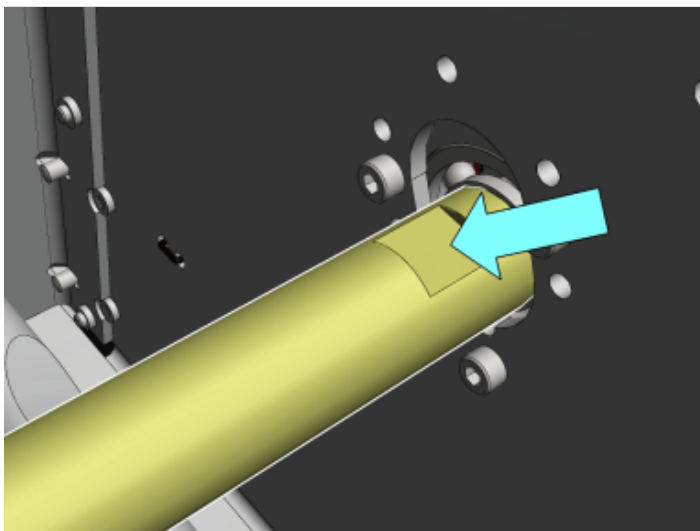
- Retire AS-35120 (Conjunto de batería)[as-35210--battery-assembly-.html#UUID-d12b6509-2362-50e1-afbd-5d8ba4735988_UUID-852734a8-2963-b764-6ec9-926946f929e2]
- Retire el AS-35200 (piso de la batería)[as-35200--battery-floor-.html#UUID-bf9cabd6-ee31-0bef-ac7b-ab738d9b8c25_UUID-d5ae8863-70b4-5227-0eb8-ed569c4e031d]
- Retire AS-35019 (Rueda y llanta)[as-35019--wheel-and-rim-assembly-.html#UUID-a57833bb-bb28-b866-5f4a-0632c426f81b_UUID-d9642700-dc5e-64e3-0090-478497c3e47d] - Retire solo las ruedas X delanteras (en el lado izquierdo y derecho del robot)
- Afloje AS-35199 (correa dentada 650)[as-35199--timing-belt-650-.html#UUID-501e7195-b73a-920a-9604-20525c612a66_UUID-eb7d6f90-8a9e-9f59-7e4d-38936133c2f7] → ambos lados
- Retire AS-35199 (correa de distribución 650)[as-35199--timing-belt-650-.html#UUID-501e7195-b73a-920a-9604-20525c612a66_UUID-bfa8bc44-ae16-07a7-2a43-97cebfa98257] → ambos lados
- Aflojar AS-35201 (Correa de distribución 400)[as-35201--timing-belt-400-.html]
- Retire AS-35201 (correa de distribución 400)[as-35201--timing-belt-400-.html]

Procedimiento:

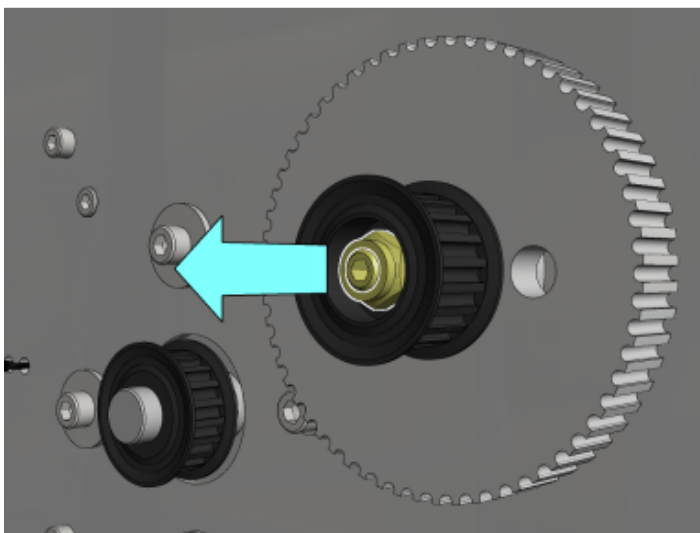
1. Utilice la llave de 20 mm para bloquear el eje en su posición.

**Nota**

Deje la llave en su lugar durante los siguientes tres pasos de este procedimiento.



2. Utilice la llave de tubo de 13 mm para desenroscar la tuerca con el tornillo en el interior.



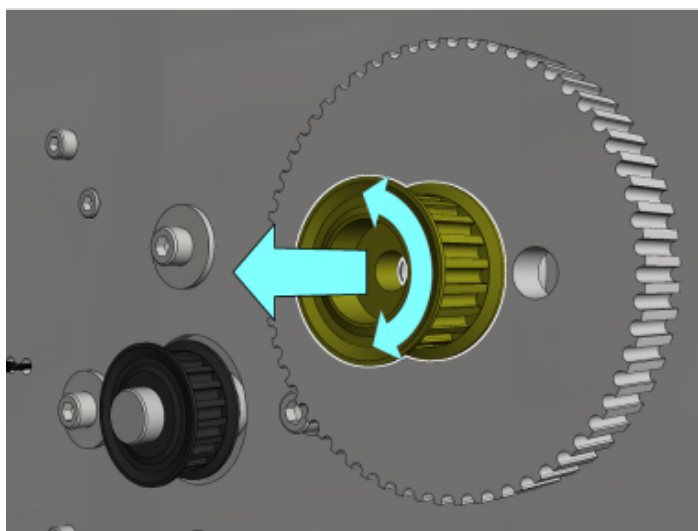
3. Use un alicate para quitar la polea pequeña.
4. Es posible que tengas que usar algo de fuerza. Intente girar la polea como se muestra en la imagen e intente quitarla del eje.



Propina

Una llave para tubos o similar puede ser útil para esto.

5. If you have a problem with pulley removal, please contact AutoStore Support.

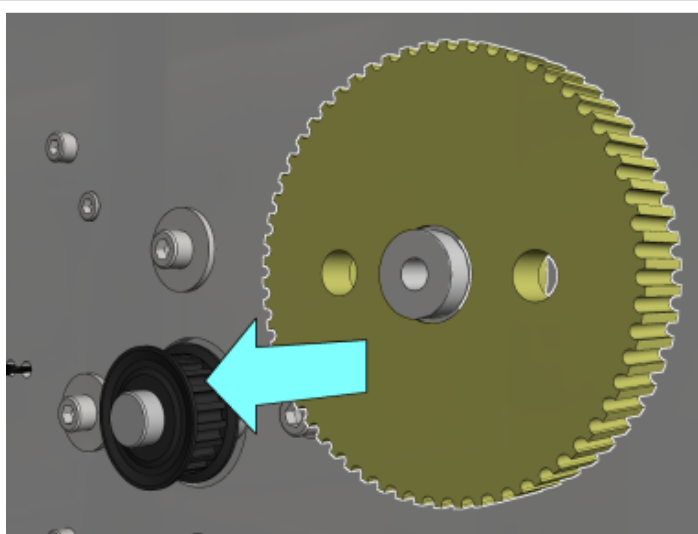


1. Pull out the bigger pulley.
2. It should be possible to remove by hand

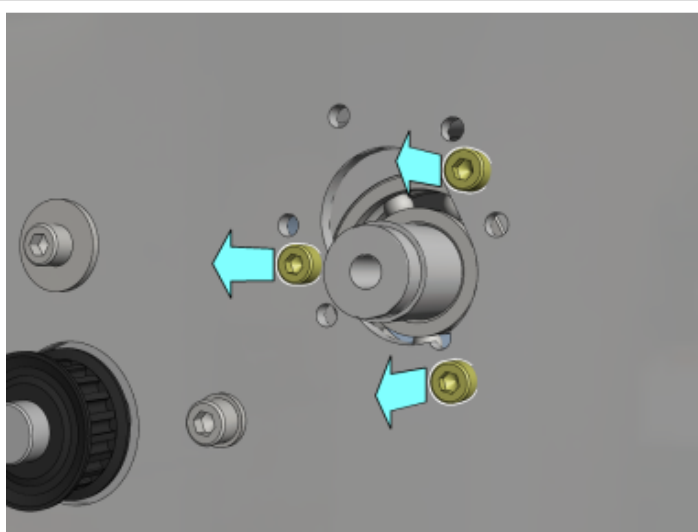


Tip

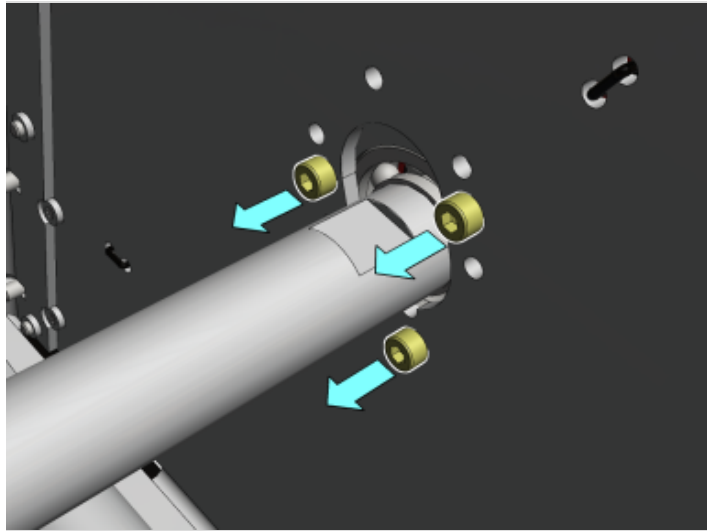
If the pulley is stuck, rotate it back and forth as in the steps above.



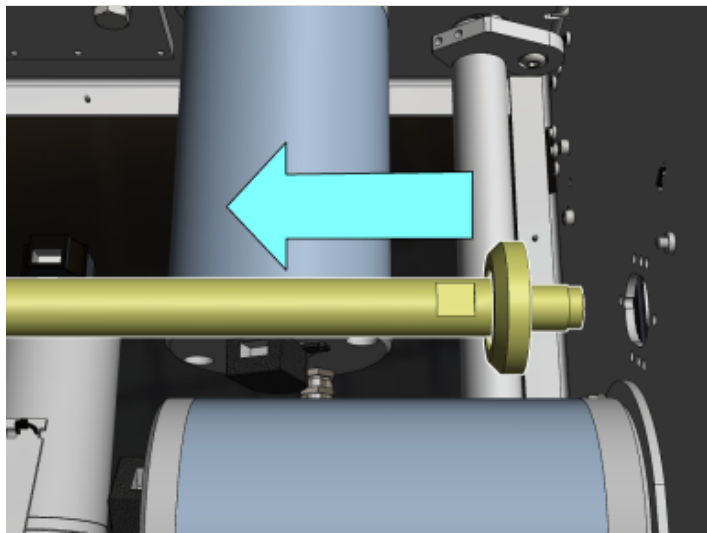
3. Unscrew the three M5x10mm hex socket screws (4mm hex key).



4. Unscrew the three M5x10mm hex socket screws (4mm hex key) → inside the Robot, left frame



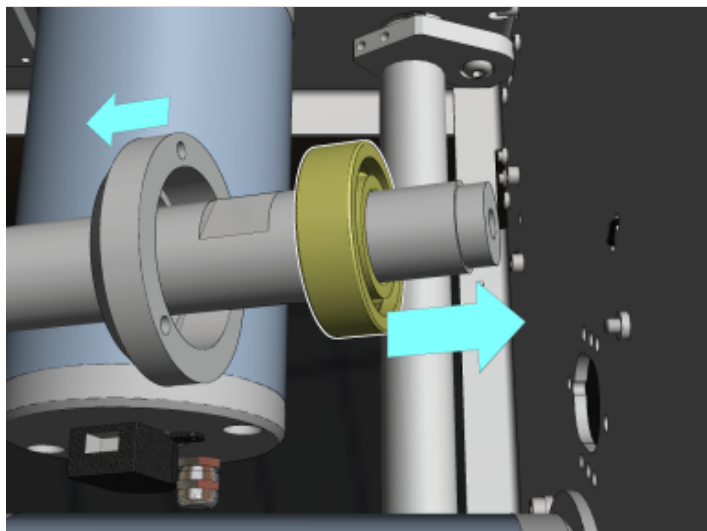
5. Pull out the Gear shaft axle from the right Robot frame.



6. Remove bearing from the Gear shaft axle. Use a bearing remover (Puller).

i Tip

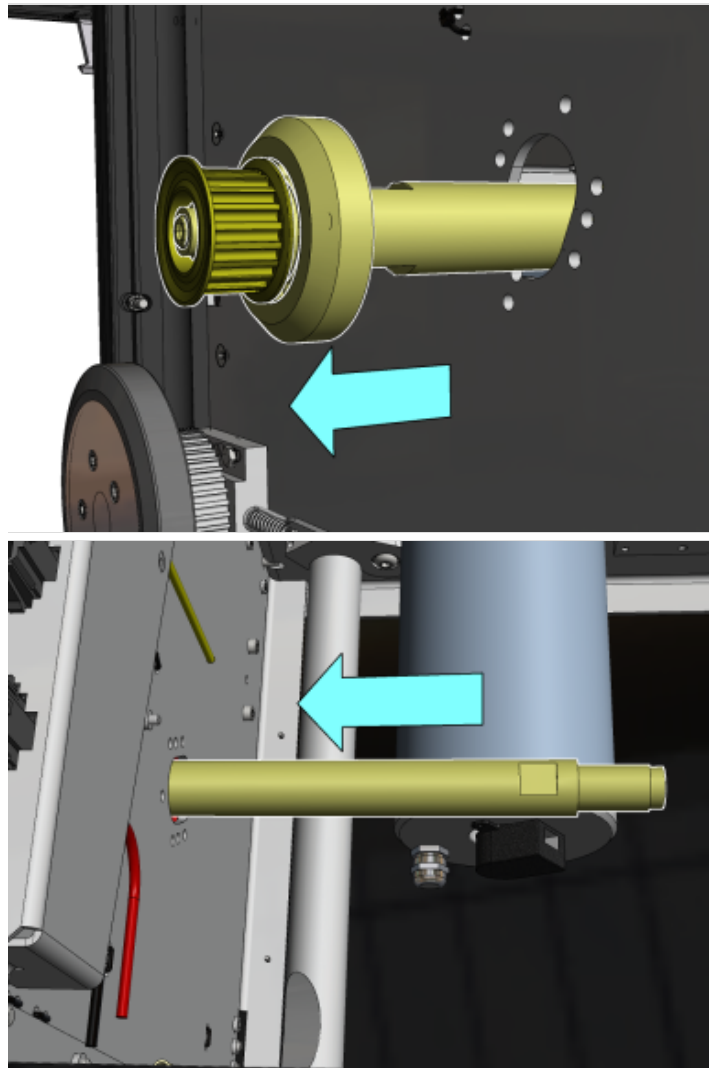
Standard pullers have an axle (screw shape), which rests on screw hole on Gear shaft axle. To avoid this, use the set screw from first step. Remove nut from it, screw back this screw in the Gear shaft axle. Put hex key socket inside Gear shaft axle this time. Now the Puller axle will rest on cup point on set screw.



7. Pull out the Gear shaft axle from the Robot.

A Caution

Once removed, the Gear shaft assembly must be installed a second time!



Install AS-35211 (Gear shaft assembly)

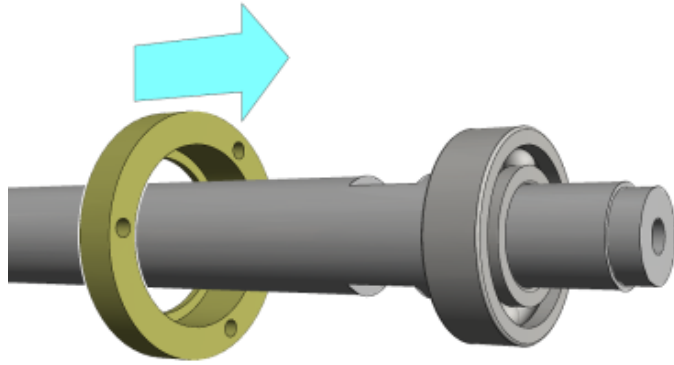
Estimated installation time: 30 minutes

Tools needed:

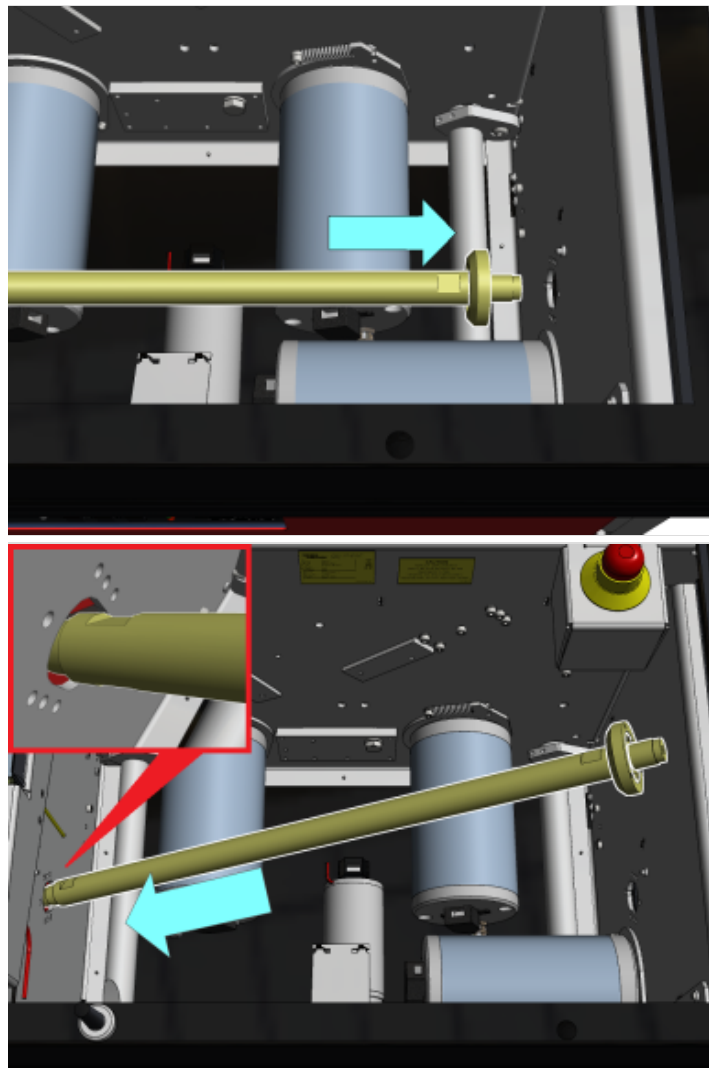
- Hex key - 3 mm
- Hex key - 4 mm
- Hex key - 5 mm
- Plastic hammer
- Screwdriver - Pozidriv PZ2
- Screwdriver - slot, 5 mm
- Wrench - 8 mm
- Wrench - 13 mm
- Wrench - 20 mm
- Wrench - 24 mm
- Gearshaft X Tool - dedicated tool for Gear shaft assembly

Procedure:

1. Fix the bearinghouse on the bearing as is shown on picture.



2. Insert the Gear shaft axle into the Robot frame.
3. Left frame first...
4. ... then right frame.

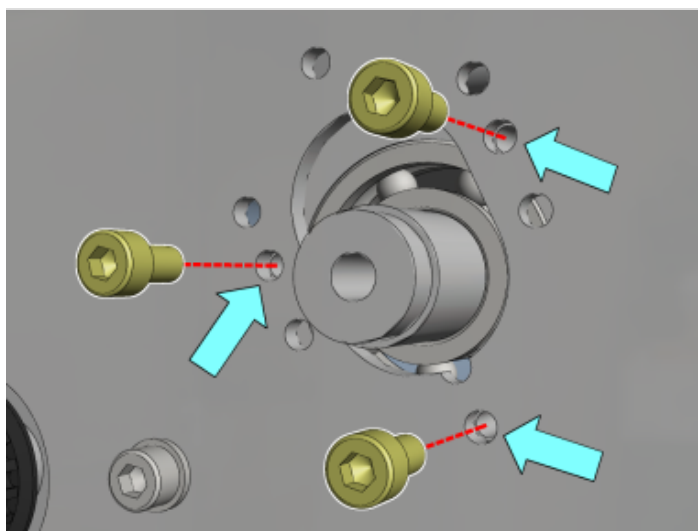


5. Screw in the three M5x10mm hex socket screws (4mm hex key) -> right side of the Robot.



Note

Tighten with 10 Nm

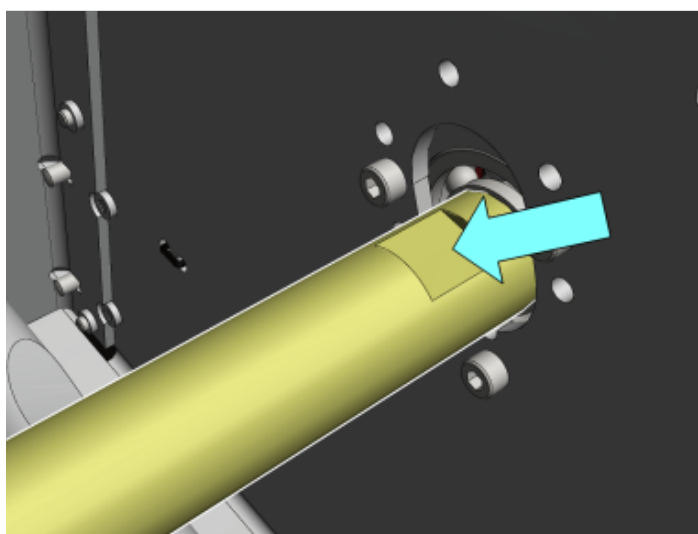


6. Use the 20 mm wrench to block the axle in position.



Note

Leave wrench in place for the next three steps in this procedure.

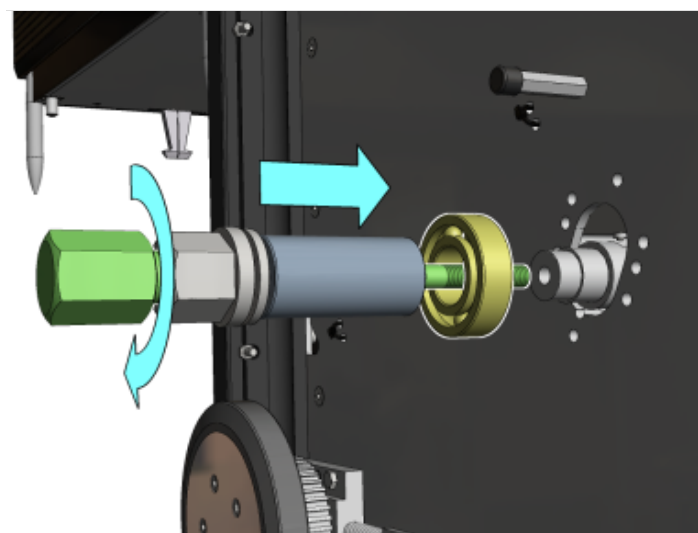


7. Use the Gearshaft X Tool (dedicated tool to fix the bearing on the Gear shaft axle) → left side of the Robot.
 8. Tighten the main part of the tool (green in image). Only tighten by hand.
 9. Tighten until you notice that the thread inside Gear shaft axle has ended.



Tip

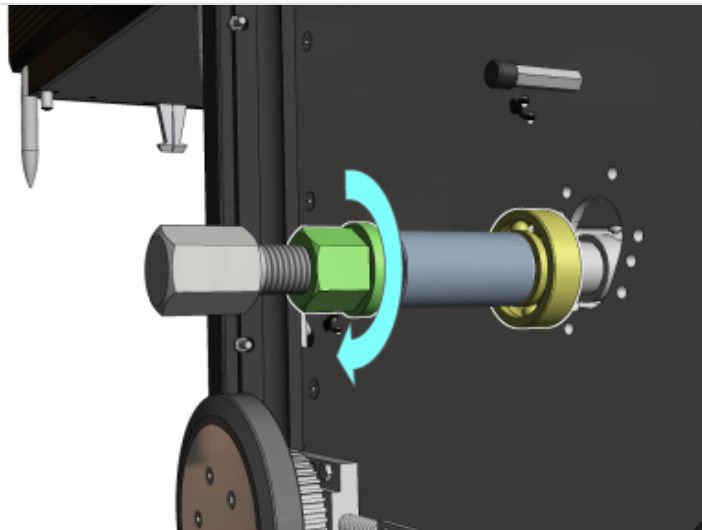
To keep tool in good condition, apply oil on thread before every use.



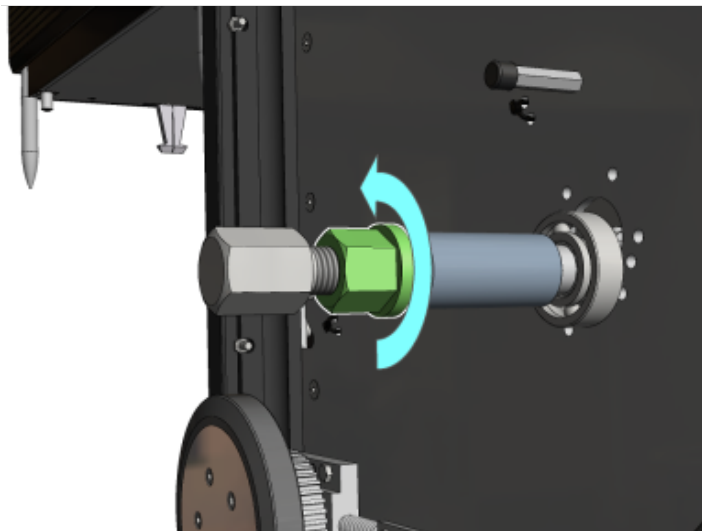
10. Use the 24mm wrench to tighten the nut (green on picture).
11. Screw in until you notice that bearing is in position.

**Note**

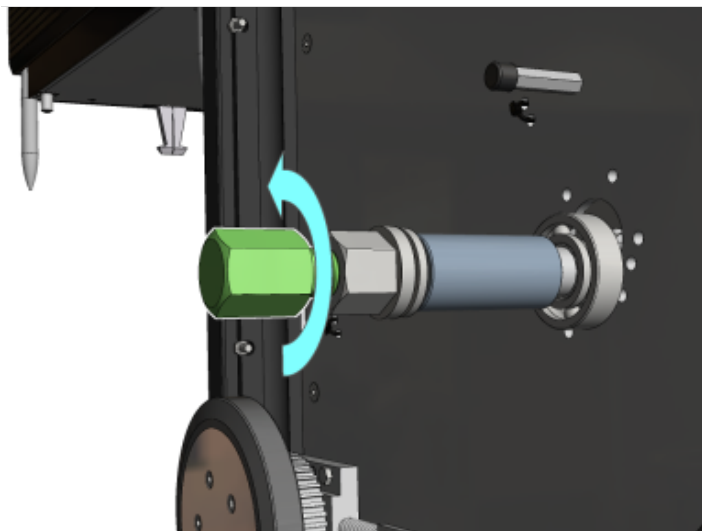
Do not over tighten! Bearing cannot move more than correct position but thread inside the Gear shaft axle may get damaged or tool might break.



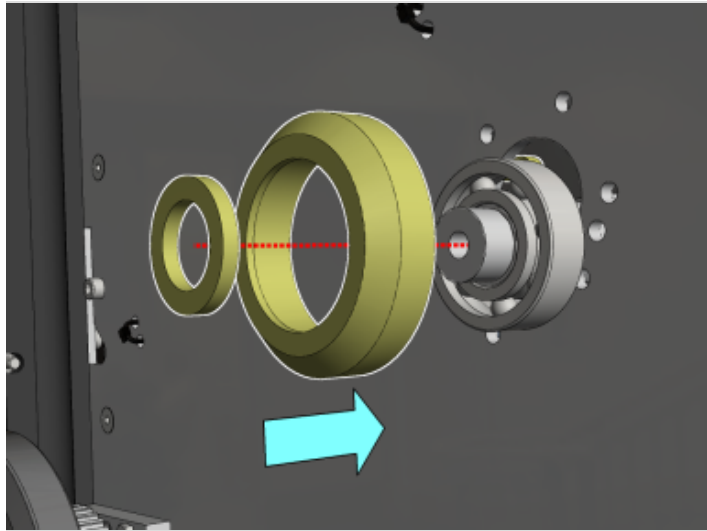
12. Loosen the nut.



13. Unscrew the tool from the Gear shaft axle.



14. Fix the bearinghouse and the distance washer on the bearing as is shown on picture.



15. Screw in the three M5x10mm hex socket screws (4mm hex key) -> inside the Robot, left frame.



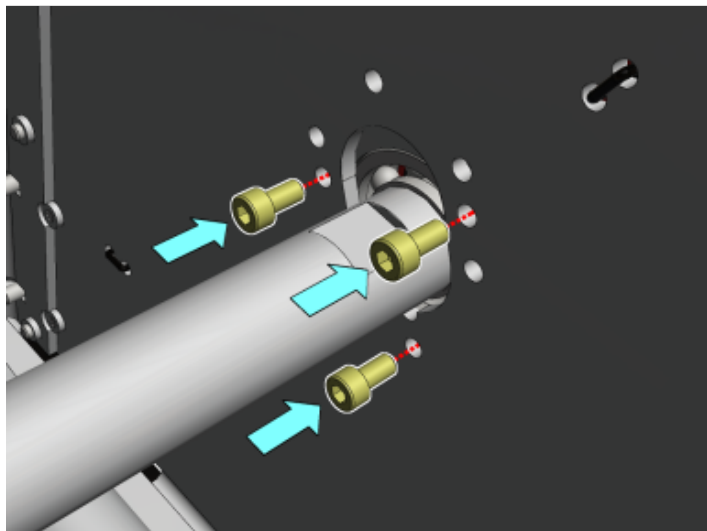
Note

Tighten with 10 Nm



Tip

If there is not enough room to tighten the lowest screw with a torque wrench, use a standard wrench instead.



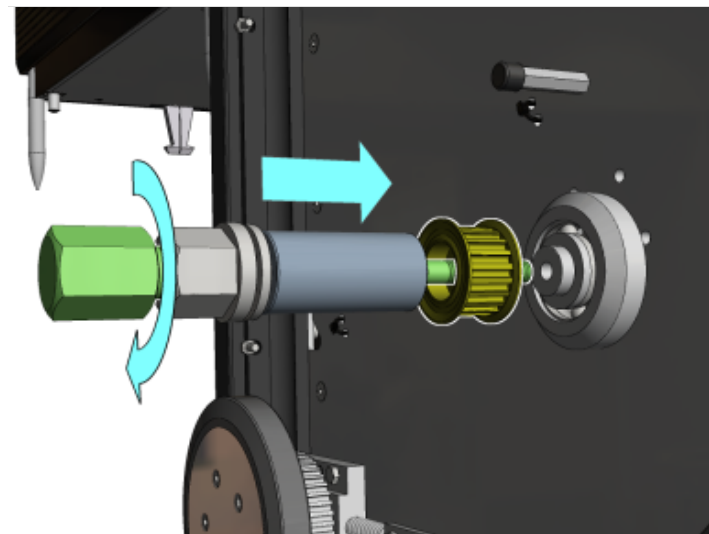
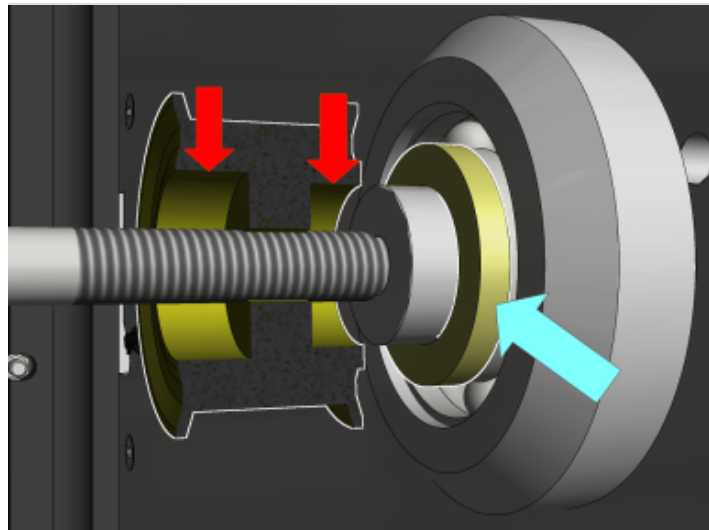
16. Use Gearshaft X Tool to fix the Pulley gear on the Gear shaft axle.
17. Do it in the same way as was with the bearing in previous steps.

**Note**

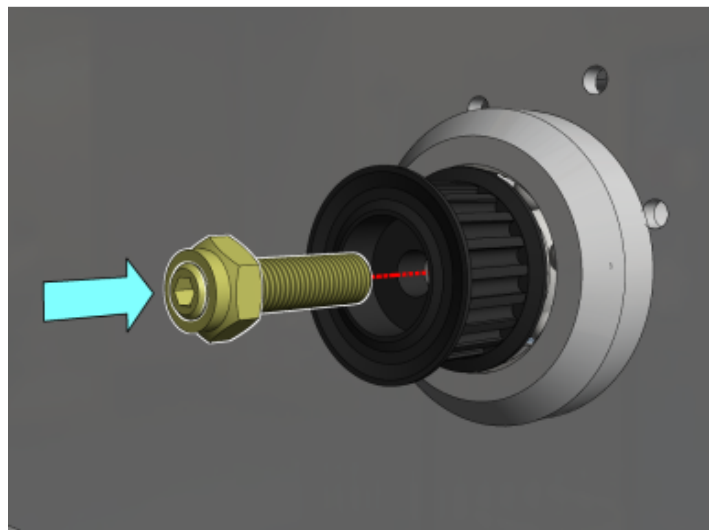
Pulley gear is not symmetrical!
Hole dimension must match the axle that pulley is installed on.

**Caution**

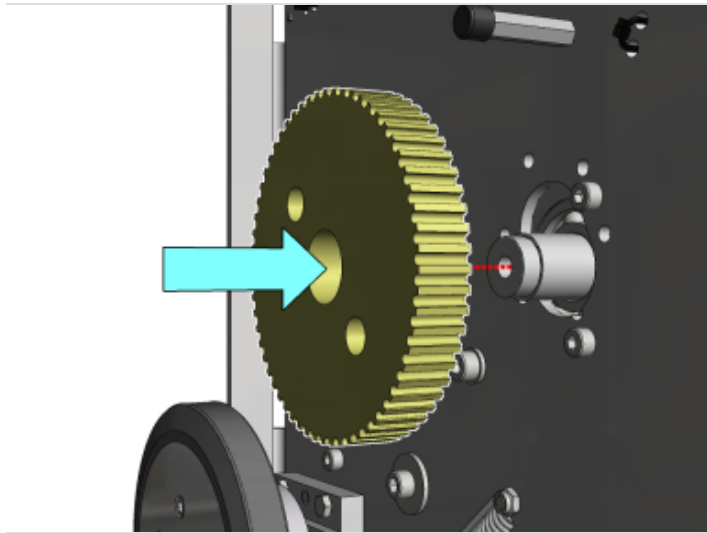
Do not forget to attach the distance washer (pointed by arrow) before fixing the Pulley gear!



18. Screw the Lock nut on Socket set screw (13mm wrench and 4mm hex key).
19. Screw in the Socket set screw (with the Lock nut on it) into the Gear shaft axle. Use hand force only.



20. Fix the Pulley gear on the Gear shaft axle on the right side of the Robot



21. Use Gearshaft X Tool to fix the Pulley gear on the Gear shaft axle.
 22. Do it in the same way as was with the bearing and the Pulley gear in previous steps.



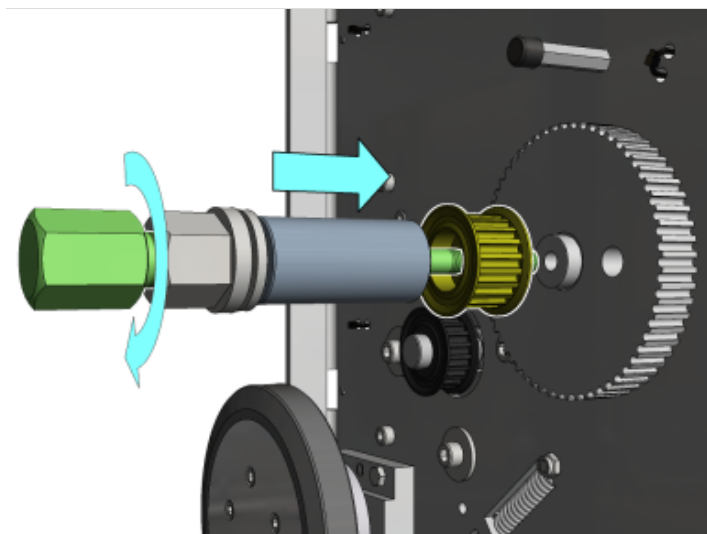
Note

This Pulley gear is the same as on the left side of the Robot. Remember that it's NOT symmetrical.

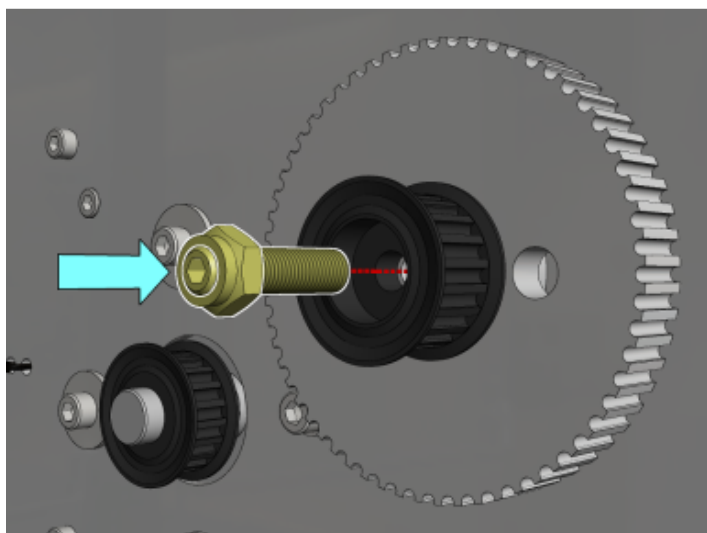


Note

There is no distance washer on this side of the Robot.



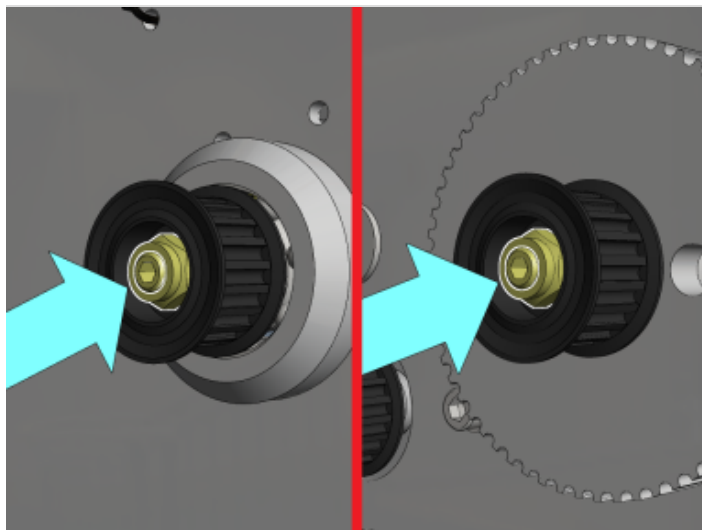
23. Prepare the Socket set screw with the Lock nut on it.
 24. Screw in this kit into the Gear shaft axle. Use hand force only.



1. Use the 13mm socket torque wrench to tighten both Lock nuts on both sides of the Robot.

**Note**

Tighten with 30 Nm

**Completion:**

- Install AS-35201 (Timing Belt 400)[as-35201--timing-belt-400-.html]
- Tighten AS-35201 (Timing Belt 400)[as-35201--timing-belt-400-.html]
- Install AS-35199 (Timing Belt 650)[as-35199--timing-belt-650-.html#UUID-501e7195-b73a-920a-9604-20525c612a66_UUID-e51e27c0-9649-1636-9f7a-447cb148e970] → Both sides
- Tighten AS-35199 (Timing Belt 650)[as-35199--timing-belt-650-.html#UUID-501e7195-b73a-920a-9604-20525c612a66_UUID-364d5814-078a-f4da-29e3-2522b48a89cc] → Both sides
- Install AS-35019 (Wheel and rim)[as-35019--wheel-and-rim-assembly-.html#UUID-a57833bb-bb28-b866-5f4a-0632c426f81b_UUID-4b8e5716-7388-69a7-63a2-ed49da768e56] → Both sides
- Install AS-35200 (Battery floor)[as-35200--battery-floor-.html#UUID-bf9cabd6-ee31-0bef-ac7b-ab738d9b8c25_UUID-e9c1ac70-60bc-7f33-75d1-905621cdfa3e]
- Install AS-35210 (Battery assembly)[as-35210--battery-assembly-.html#UUID-d12b6509-2362-50e1-afbd-5d8ba4735988_UUID-a8e83a06-e4f7-0dd6-a877-ad9518033fc8]
- Install AS-35013 (Sheet left)[as-35013--r5---as-35944--r5---sheet-left-.html#UUID-d0ebc0b5-9fb8-9680-1c2d-4772ebf7bf2d_UUID-0fe7a960-8e1c-0cd9-efcc-6732da1ec22c]
- Install AS-35012 (Sheet right)[as-35012--r5---as-35943--r5---sheet-right-.html#UUID-4a74965f-f8e8-94be-875d-def38189c946_UUID-480c2c2e-1e84-e9cc-5cf3-285e92b3e32b]
- Install AS-35011 (Sheet rear)[as-35011--r5---as-35942--r5---sheet-rear-.html#UUID-3cfa3d6f-2d13-f6a1-bd8c-29067174afcf_UUID-770524a6-795b-3ce1-c444-ef2d7880a405]
- Install AS-35205 (Sheet top SDG) / AS-35646 (Sheet Top DDG)[as-35205--sheet-top-sdg---as-35646--sheet-top-ddg-.html#UUID-2653ba5f-4e21-b730-9d1e-f6dd04791b3a_UUID-67d6d688-0828-2123-11d3-b92cb6ca4d01]