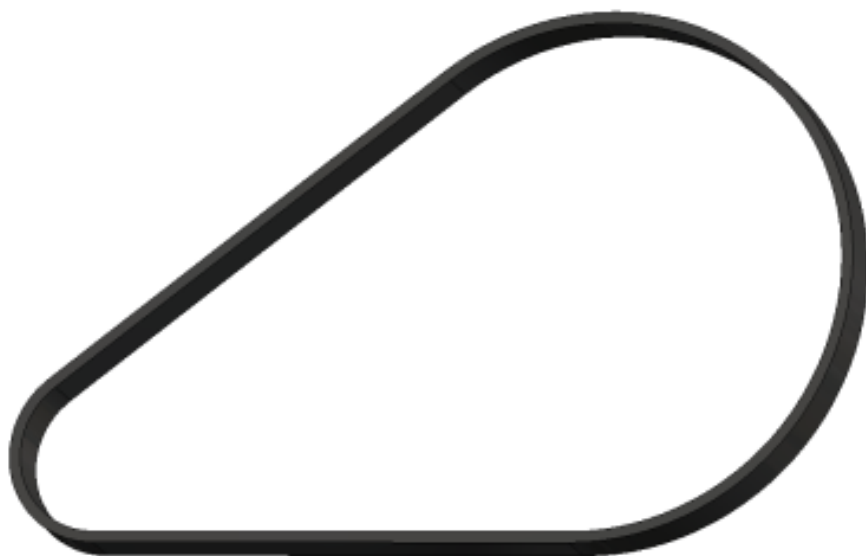


AS-35201 (Correa dentada 400)



Extracción Y - AS-35201 (correa dentada 400)

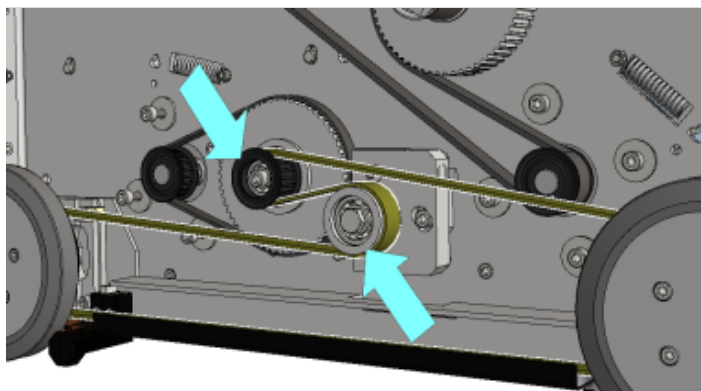
Tiempo estimado de retirada: 20 minutos

Herramientas necesarias:

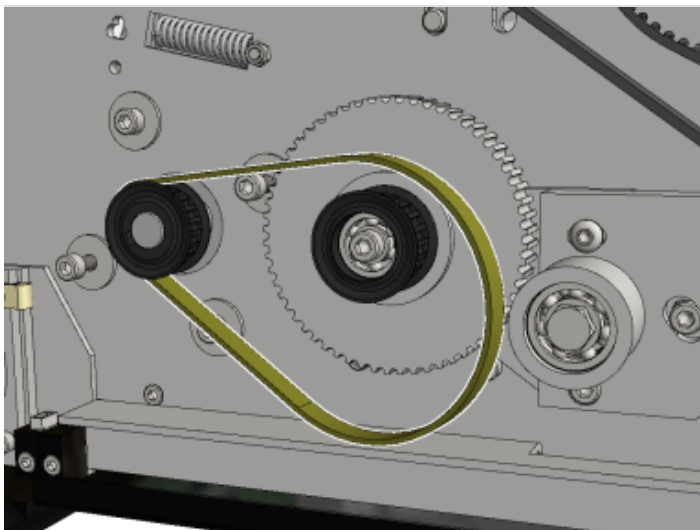
- Llave hexagonal - 3 mm
- Llave hexagonal - 4 mm
- Llave hexagonal - 5mm
- Destornillador - Ranura 5mm

Procedimiento:

1. Retire primero el AS-35219 (Cinturón 1420).
2. Pero solo desde dos poleas → parten de la polea en el tensor (carrete sin dientes y bridas), luego desde el engranaje con bridas.
3. No es necesario quitar esta correa de todas las poleas en este procedimiento.



1. Retire la correa, comenzando desde el conjunto de engranaje Y (engranaje sin pestañas), luego del engranaje con bridas.



Instalar Y - AS-35201 (Correa dentada 400)

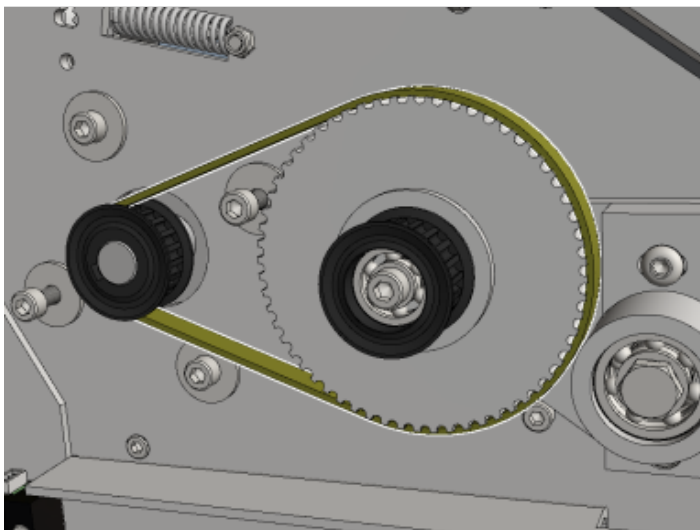
Tiempo estimado de instalación: 20 minutos

Herramientas necesarias:

- Llave hexagonal - 3 mm
- Llave hexagonal - 4 mm
- Llave hexagonal - 5 mm

Procedimiento:

1. Coloque la correa en los engranajes como se muestra en la imagen.
2. Arranque desde la marcha en el Motor-Y (engranaje con bridas), luego en la segunda marcha.



Terminación:

- Apriete AS-35201 (Correa dentada 400)[as-35201--timing-belt-400-.html]
- Instalar AS-35219 (Correa 1420)[as-35219--belt-1420-.html#UUID-31ceec0b-5465-c73b-7e39-8964b2c47ae7_UUID-9f5f97cb-af94-3f75-0459-70a54949495e]
- Apriete AS-35219 (Correa 1420)[as-35219--belt-1420-.html#UUID-31ceec0b-5465-c73b-7e39-8964b2c47ae7_UUID-756c22c4-4f07-7c62-ed8d-6ebe1a1d8a51]
- Instalar AS-35021 (Frente de hoja)[as-35021--r5---as-35945--r5---sheet-front-.html#UUID-31b10256-172a-aa77-27f3-70611fd2f729_UUID-9b92d4e7-aba2-2c22-3c5d-0a94f0ac7d0a]

- Instale AS-35205 (SDG de 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-67d6d688-0828-2123-11d3-b92cb6ca4d01]

Aflojar Y - AS-35201 (Correa dentada 400)

Tiempo estimado: 10 minutos

Herramientas necesarias:

- Llave hexagonal - 3 mm
- Llave hexagonal - 3 mm
- Llave hexagonal - 3 mm
- Destornillador, ranura de 5 mm

Preparativos:

- Remove 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-9a96252c-e093-b3f9-9d3b-4de2dade2faf]
- Remove AS-35021 (Sheet front)[as-35021-r5---as-35945-r5---sheet-front-.html#UUID-31b10256-172a-aa77-27f3-70611fd2f729_UUID-e830e1e1-7335-76b1-3edd-915246c7f0c6]

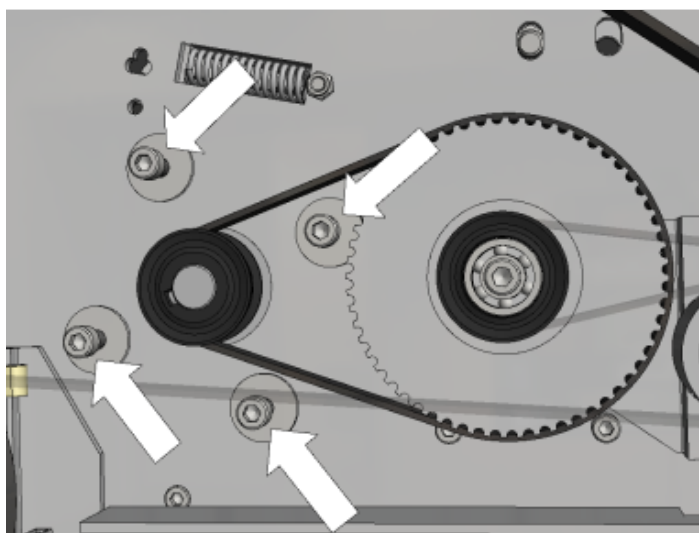
Procedure:

1. Loosen four M6x20mm hex socket screws (5mm hex key) on the Motor but do not remove them.
2. No need to remove AS-35219 (Belt 1420) in the current procedure.

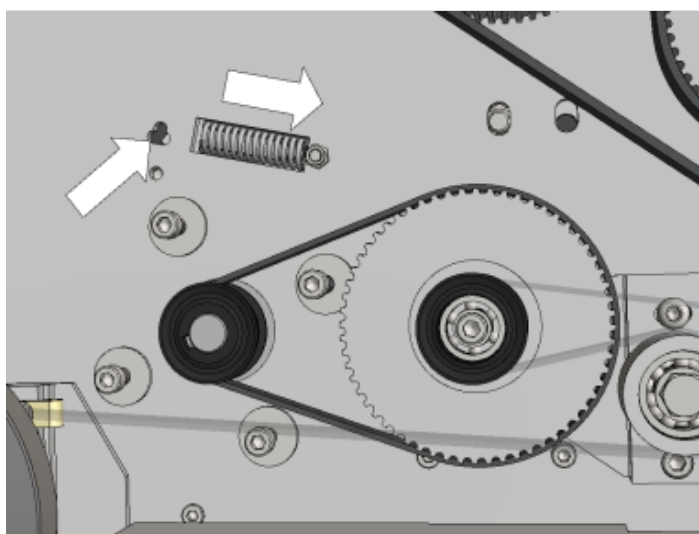


Note

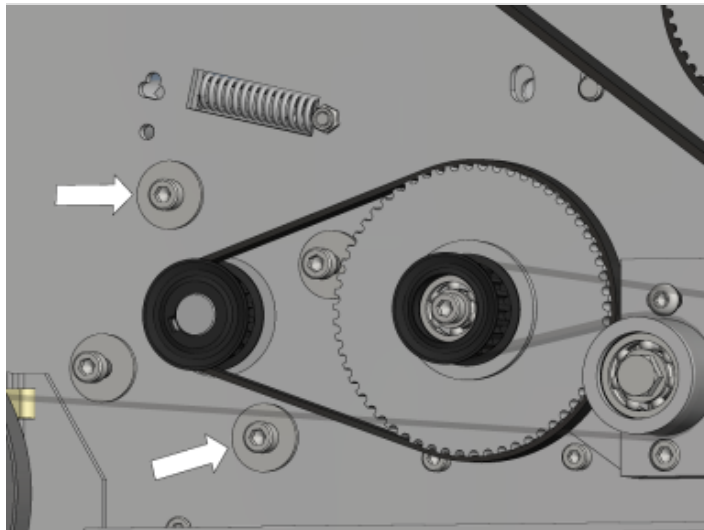
Screws should be loosened only enough to allow Motor to be able to move/slide (because of spring force).



3. Put a 5mm flat screwdriver into the notch and compress the spring.



4. Still compressing the spring as much as needed, retighten two of the M6x20mm hex socket screws (5mm hex key).



Tighten Y - AS-35201 (Timing Belt 400)

Estimated time: 15 minutes

Tools needed:

- Hex key - 3 mm
- Hex key - 5 mm
- Hex key - 5 mm
- Hz meter

Preparation:

- Remove AS-35021 (Sheet front)[as-35021--r5---as-35945--r5---sheet-front-.html#UUID-31b10256-172a-aa77-27f3-70611fd2f729_UUID-e830e1e1-7335-76b1-3edd-915246c7f0c6]

Procedure:

A Caution

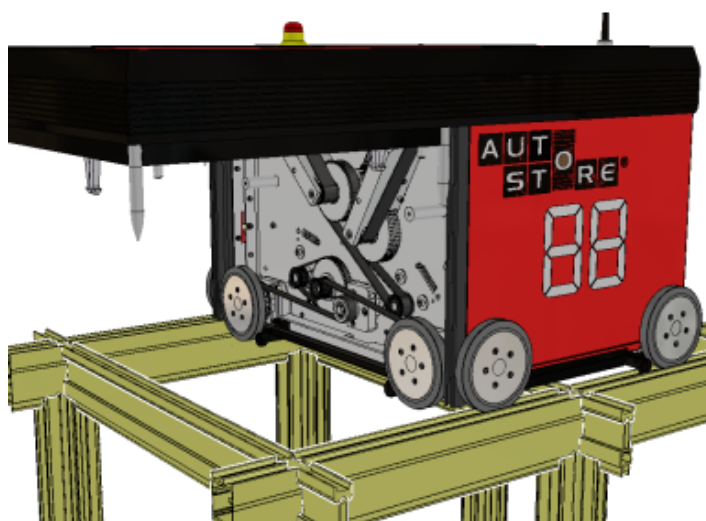
Make sure Y-drive mechanism is free to move/revolve.

- Set the Robot as in the picture → Robot is standing on X wheels - Y wheels are above the cell, not above the track.

In this case, it's doesn't matter which trackshift position Y wheels have.

or

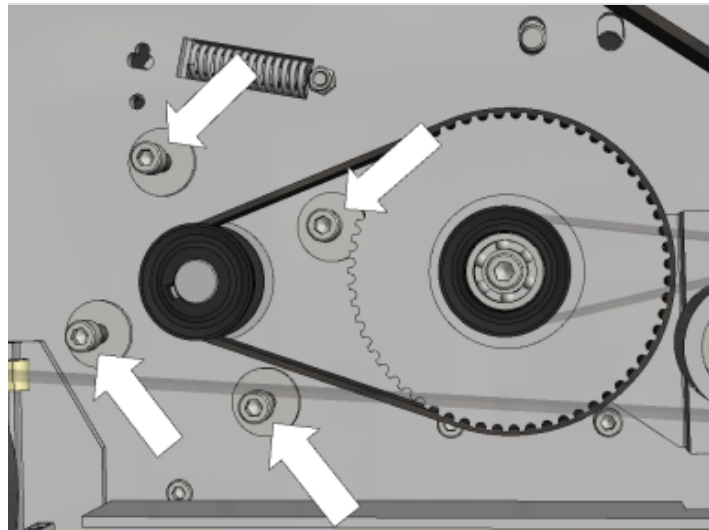
- Set the Robot Y wheels on maximum upper trackshift position (X-drive position).
- For wheel shift see here.[wheel-shifting.html]



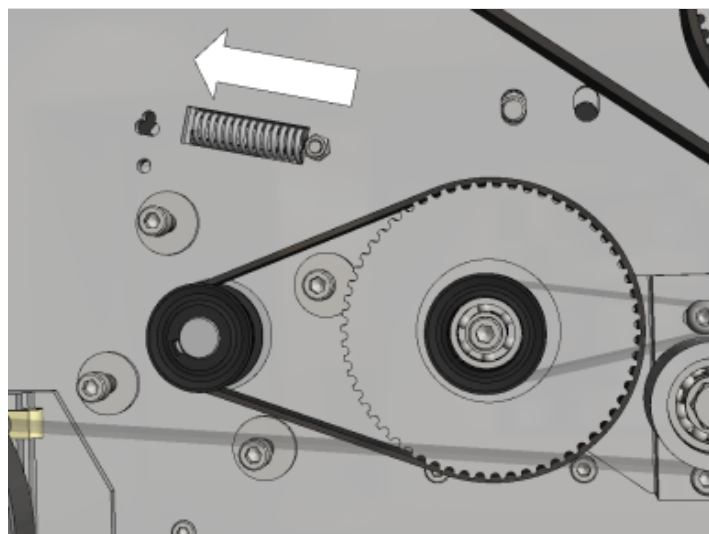
1. Loosen four M6x20mm hex socket screws (5 mm hex key) on the Motor but do not remove them.
2. No need to remove AS-35219 (Belt 1420).

**Note**

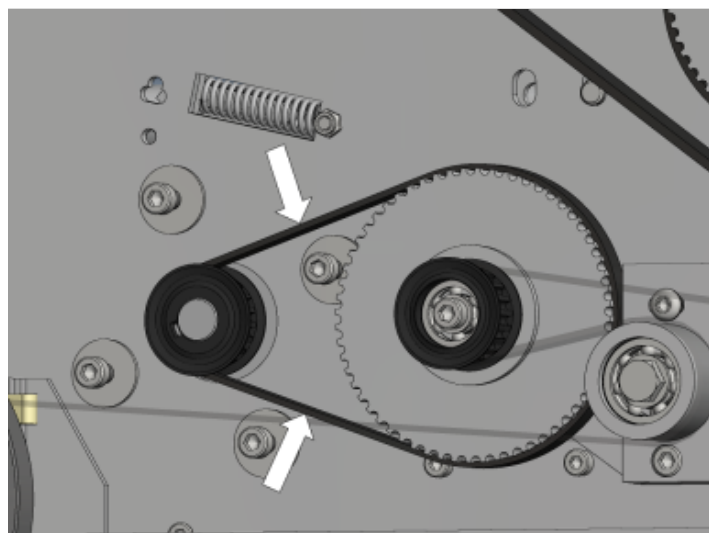
Screws should be loosened only enough to allow Motor to be able to move/slide (because of spring force).



3. If belt is slack – The Motor will slide back in position.



4. If the Motor won't slide back in position - try to push on belt by hand and release.
5. The Motor should slide (smoothly) between two limit positions.

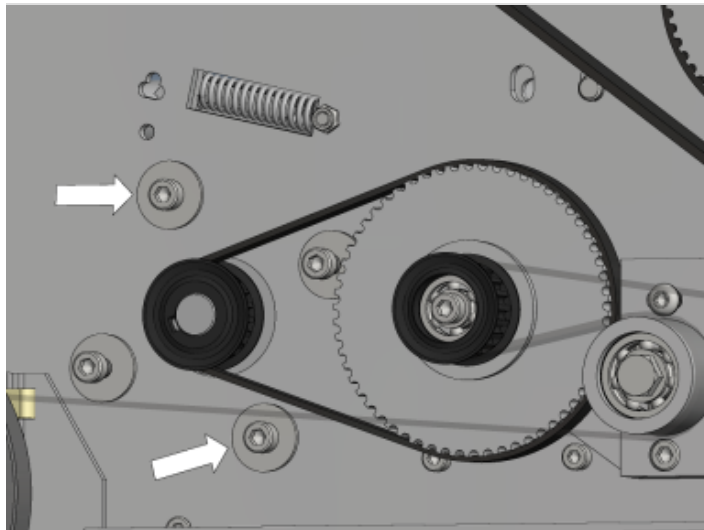


6. Tighten two M6x20mm hex socket screws (5mm hex key) on the Motor. But not too much, only enough to not allow the Motor move in position.
7. Go to Measurement Belt tension, find proper tension value for AS-10744 belt in the table.
8. Measure the belt.



Note

Make sure to use the correct measuring point on the belt.



If tension is too low:

9. You have to adjust the position of the Motor manually and measure the belt tension again.
10. Use longitudinal piece of wood or hard plastic (hammer handle for example) and hammer.
11. Gently punch in point as arrow shows (picture) to move the Motor in position (punching direction the same as arrow shows).

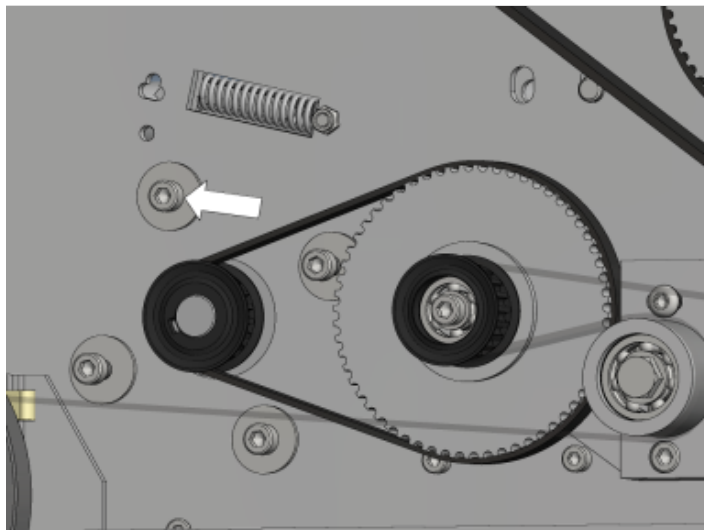
If tension is too high:

1. Do the same thing as above, but punch in the point from from opposite side of the screw head (punching direction also opposite than arrow shows).

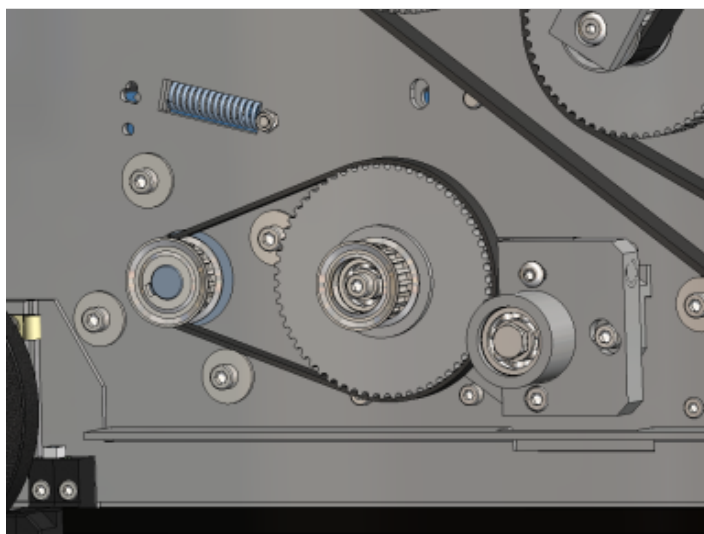


Note

Make sure the two screws (mentioned in previous step) are not tightened too much. If they are too tight adjustment with a hammer may be not possible.



2. When tension is proper -> Tighten four M6x20mm hex socket screws (5mm hex key) on the Motor.
3. Measure belt tension again.



Completion:

- Install AS-35021 (Sheet front)[as-35021--r5---as-35945--r5---sheet-front-.html#UUID-31b10256-172a-aa77-27f3-70611fd2f729_UUID-9b92d4e7-aba2-2c22-3c5d-0a94f0ac7d0a]

Remove X - AS-35201 (Timing Belt 400)

Estimated removal time: 20 minutes

Tools needed:

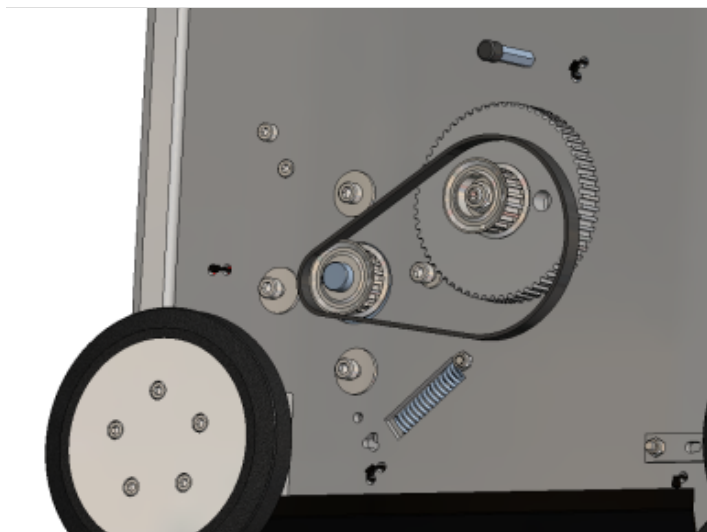
- Hex key - 3 mm
- Hex key - 4 mm
- Hex key - 5 mm
- Screwdriver - slot, 5 mm

Preparation:

- Remove 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-9a96252c-e093-b3f9-9d3b-4de2dade2faf]
- Remove AS-35011 (Sheet rear)[as-35011--r5---as-35942--r5---sheet-rear-.html#UUID-3cfa3d6f-2d13-f6a1-bd8c-29067174afcf_UUID-56eb0901-be2b-17b1-005e-ab3076196808]
- Remove AS-35012 (Sheet right)[as-35012--r5---as-35943--r5---sheet-right-.html#UUID-4a74965f-f8e8-94be-875d-def38189c946_UUID-26b3d846-4d07-4a61-998c-ccafd5b19d1e]
- Remove AS-35019 (Wheel and rim)[as-35019--wheel-and-rim-assembly-.html#UUID-a57833bb-bb28-b866-5f4a-0632c426f81b_UUID-d9642700-dc5e-64e3-0090-478497c3e47d] → Only front right
- Loosen AS-35199 (Timing Belt 650)[as-35199--timing-belt-650-.html#UUID-501e7195-b73a-920a-9604-20525c612a66_UUID-eb7d6f90-8a9e-9f59-7e4d-38936133c2f7] → Only right
- Remove AS-35199 (Timing Belt 650)[as-35199--timing-belt-650-.html#UUID-501e7195-b73a-920a-9604-20525c612a66_UUID-bfa8bc44-ae16-07a7-2a43-97cebfa98257] → Only right
- Loosen AS-35201 (Timing Belt 400)[as-35201--timing-belt-400-.html]

Procedure:

Remove belt, starting from Pulley move X (flangeless gear), then from gear with flanges (Motor-X).



Install X - AS-35201 (Timing Belt 400)

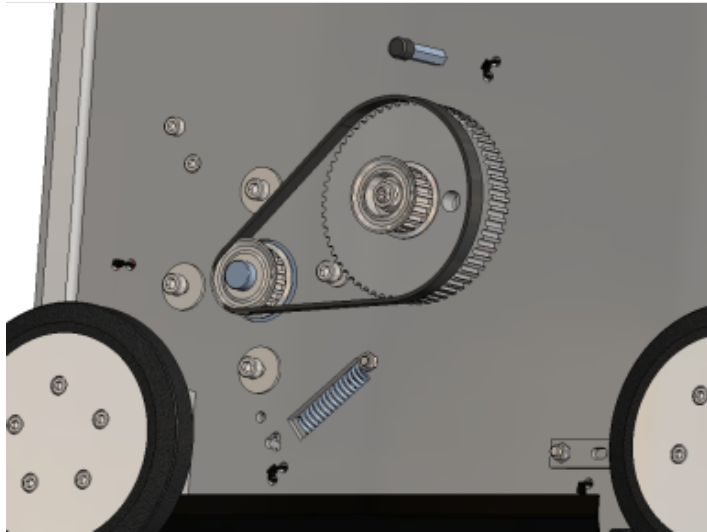
Estimated installation time: 20 minutes

Tools needed:

- Hex key - 3 mm
- Hex key - 4 mm
- Hex key - 5 mm

Procedure:

1. Place belt on the gears as shown in the picture.
2. Start from gear on Motor-X (gear with flanges), then on the second gear.

**Completion:**

- 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]
- Tighten AS-35199 (Timing Belt 650)[as-35199--timing-belt-650-.html#UUID-501e7195-b73a-920a-9604-20525c612a66_UUID-364d5814-078a-f4da-29e3-2522b48a89cc]
- 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]
- 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]

Loosen X - AS-35201 (Timing Belt 400)

Estimated time: 10 minutes

Tools needed:

- Hex key - 3 mm
- Hex key - 4 mm
- Hex key - 5 mm
- Screwdriver - slot, 5 mm

Preparations:

- Remove 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-9a96252c-e093-b3f9-9d3b-4de2dade2faf]

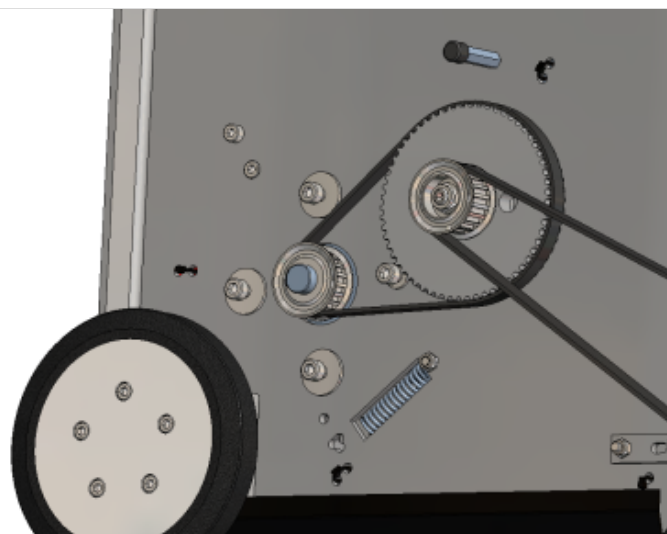
- Remove AS-35011 (Sheet rear)[as-35011--r5---as-35942--r5---sheet-rear-.html#UUID-3cfa3d6f-2d13-f6a1-bd8c-29067174afcf_UUID-56eb0901-be2b-17b1-005e-ab3076196808]
- Remove AS-35012 (Sheet right)[as-35012--r5---as-35943--r5---sheet-right-.html#UUID-4a74965f-f8e8-94be-875d-def38189c946_UUID-26b3d846-4d07-4a61-998c-ccafd5b19d1e]

Procedure:

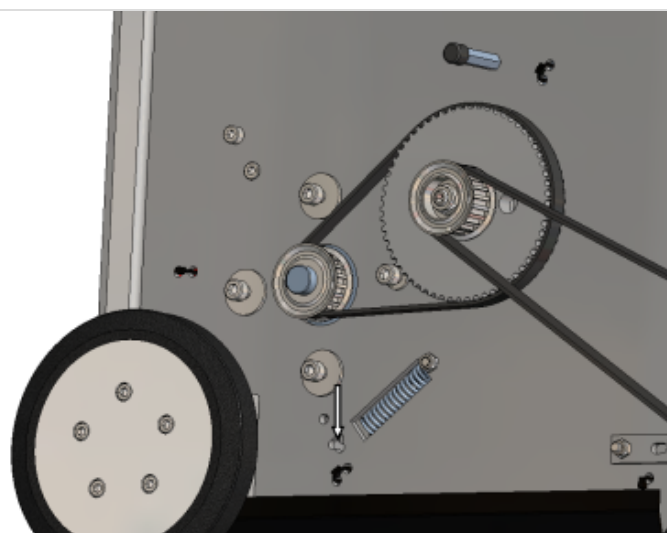
1. Loosen four M6x20mm hex socket screws (5mm hex key) on the Motor but do not remove them.
2. No need to remove AS-35199 (Timing Belt 650) in the current procedure.

**Note**

Screws should be loosened only enough to allow Motor to be able to move/slide (because of spring force).



3. Put a 5mm flat screwdriver into the notch and compress the spring.



4. Still compressing the spring as much as needed, retighten two of the M6x20mm hex socket screws (5mm hex key).



Tighten X - AS-35201 (Timing Belt 400)

Estimated time: 10 minutes

Tools needed:

- Hex key - 3 mm
- Hex key - 4 mm
- Hex key - 5 mm
- Hz meter

Preparations:

- Remove 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-9a96252c-e093-b3f9-9d3b-4de2dade2faf]
- Remove AS-35011 / AS-35942 (Sheet rear)[as-35011--r5---as-35942--r5---sheet-rear-.html#UUID-3cfa3d6f-2d13-f6a1-bd8c-29067174afcf_UUID-56eb0901-be2b-17b1-005e-ab3076196808]
- Remove AS-35012 / AS-35943 (Sheet right)[as-35012--r5---as-35943--r5---sheet-right-.html#UUID-4a74965f-f8e8-94be-875d-def38189c946_UUID-26b3d846-4d07-4a61-998c-ccafd5b19d1e]

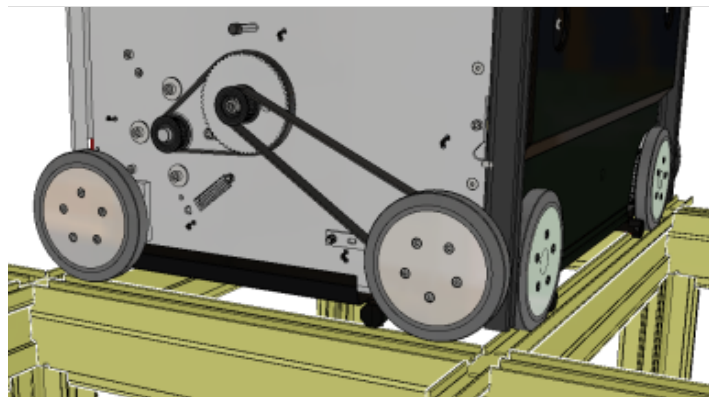
Procedure:



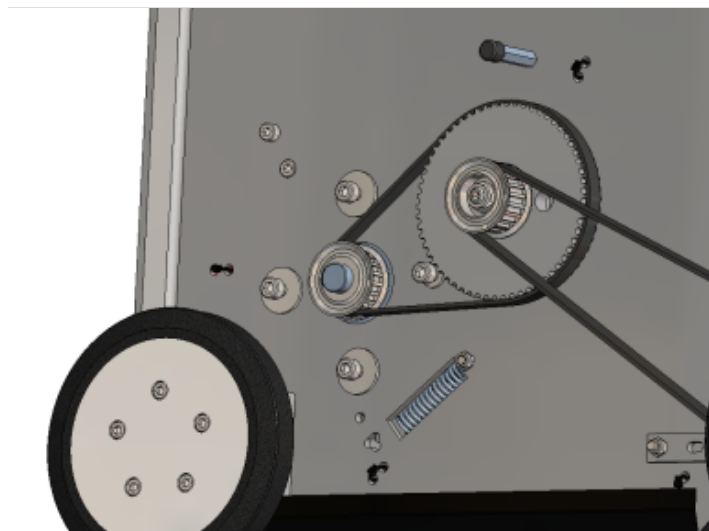
Caution

Make sure Robot wheels are in Y-drive position (Y wheels in maximum lower trackshift position - X wheels above the track) → drive transmission mechanism has to be free to move/revolve.

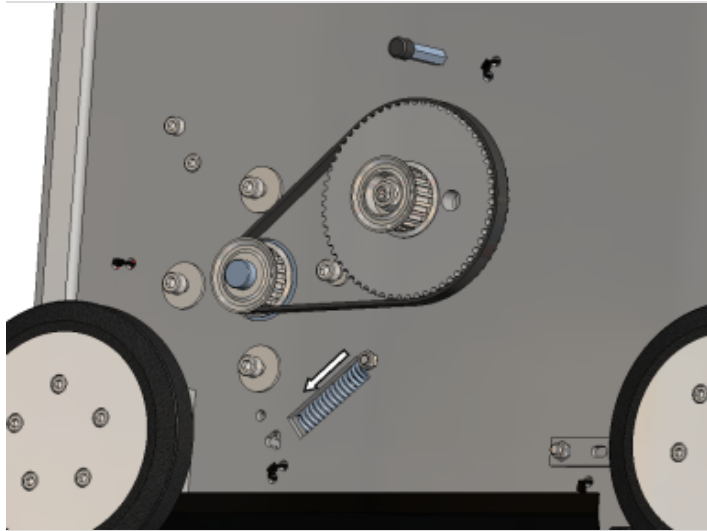
1. For wheel shift, see here[wheel-shifting.html]



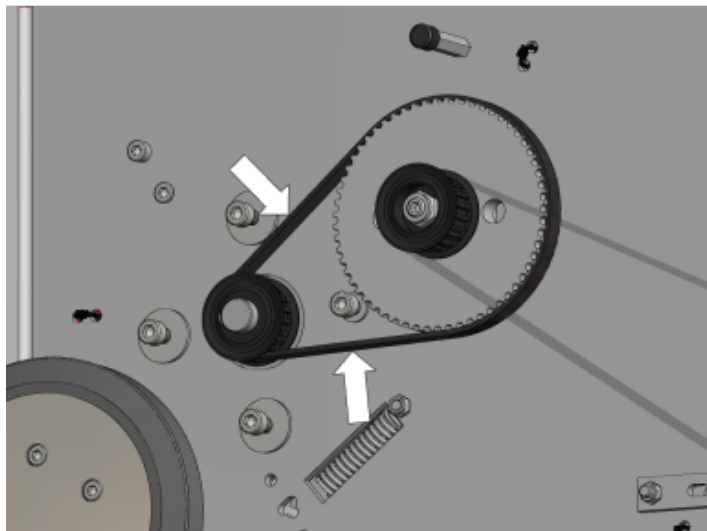
2. Loosen four M6x20mm hex socket screws (5mm hex key) on the Motor but do not remove them.
3. No need to remove AS-35195 (Timing Belt).



4. If belt is slack – the Motor will slide back in position.



5. If the Motor won't slide back in position - try to push on belt by hand and then release.
6. The Motor should slide (smoothly) between two limit positions.



7. Tighten two M6x20mm hex socket screws (5mm hex key) on the Motor.

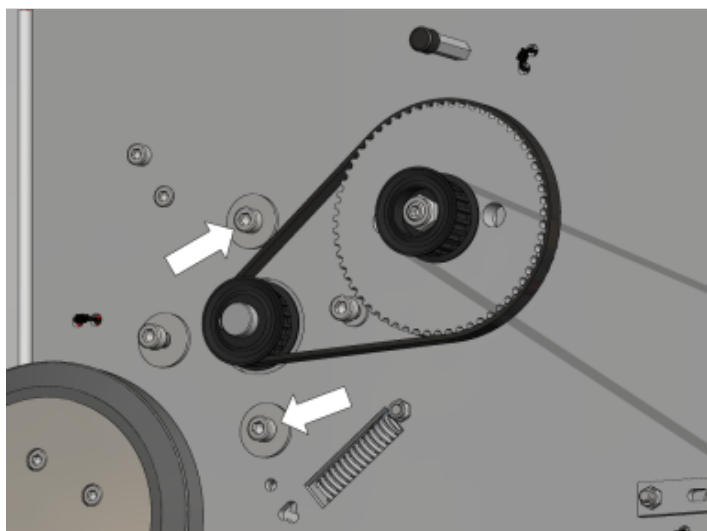
Only tighten enough to lock Motor in position.

8. Go to Measurement Belt tension, find proper tension value for AS-10744 belt in the table.
9. Measure the belt.



Note

Make sure to use the correct measuring point on the belt.



If tension is too low:

1. You have to adjust the position of the Motor manually and measure the belt tension again.
2. Use longitudinal piece of wood or hard plastic (hammer handle for example) and hammer.
3. Gently punch in point as arrow shows (picture) to move the Motor in position (punching direction the same as arrow shows).

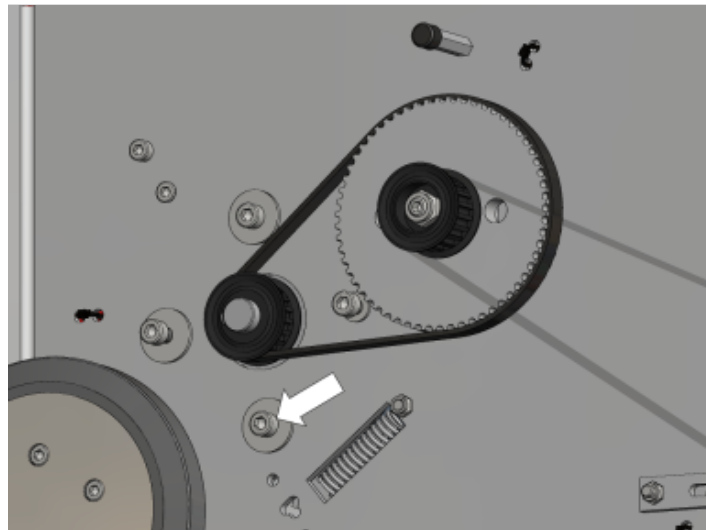
If tension is too high:

1. Do the same thing as above, but punch in the point from opposite side of the screw head (punching direction also opposite than arrow shows).



Note

Make sure two screws (mentioned in previous step) are tighten only a little bit. Because if they are too tight, adjusting by hammer may be not possible.



1. When tension is proper → tighten four M6x20 mm hex socket screws (5mm hex key) on the Motor.
2. Measure belt tension again.



Note

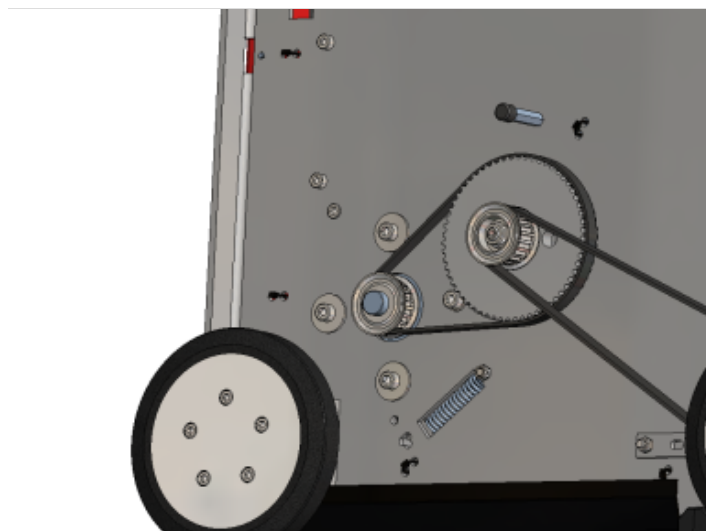
Four M6x20mm hex socket screws need to be tightened with 16 Nm.

Belt tension value may increase after tightening the screws.



Caution

Make sure belt tension does not exceeded maximum value.



Completion:

- Install AS-35012 / AS-35943 (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 / AS-35942 (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]