

## AS-35219 (Cinturón 1420)



### Retire AS-35219 (correa 1420)

Tiempo estimado de retirada: 15 minutos

#### Herramientas necesarias:

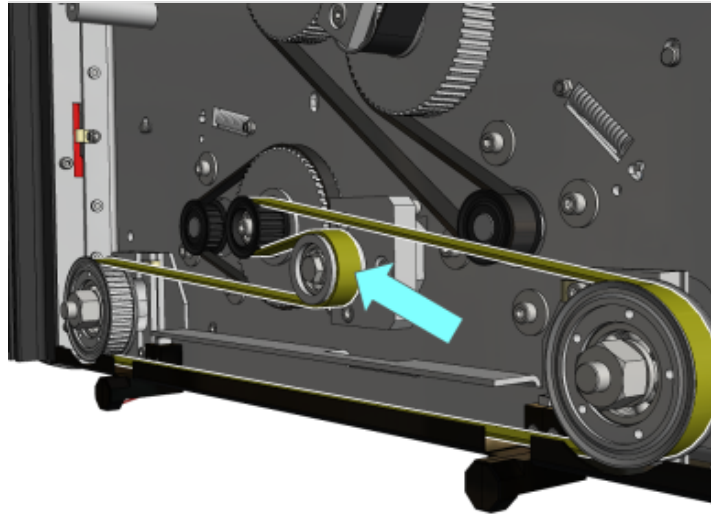
- Llave hexagonal - 3 mm
- Llave hexagonal - 4 mm
- Llave hexagonal - 5 mm
- Destornillador - ranura, 5 mm

#### Preparación:

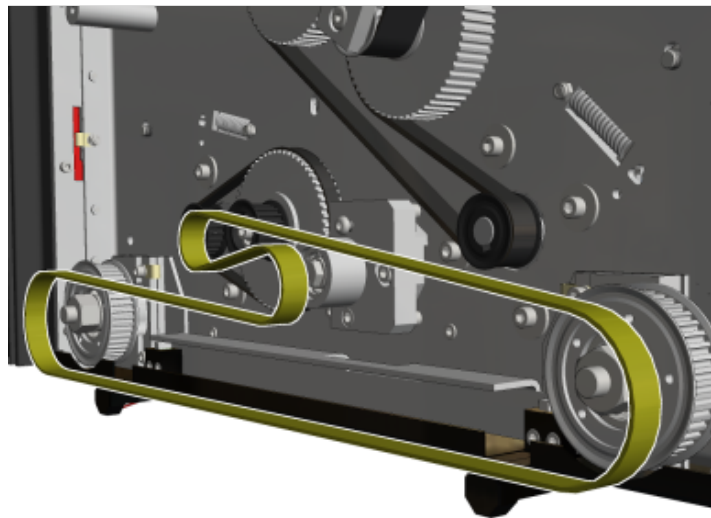
- Retire AS-35021 (Anverso de la hoja)[as-35021--r5---as-35945--r5---sheet-front-.html#UUID-31b10256-172a-aa77-27f3-70611fd2f729\_UUID-e830e1e1-7335-76b1-3edd-915246c7f0c6]
- Quitar AS-35019 (Rueda y llanta)[as-35019--wheel-and-rim-assembly-.html#UUID-a57833bb-bb28-b866-5f4a-0632c426f81b\_UUID-d9642700-dc5e-64e3-0090-478497c3e47d] → Solo dos ruedas delanteras
- Aflojar AS-35219 (Correa 1420)[as-35219--belt-1420-.html#UUID-31ceec0b-5465-c73b-7e39-8964b2c47ae7\_UUID-68fd9524-610f-67d7-6ac1-625a1e1a5312]

#### Procedimiento:

1. Retire la correa, comenzando desde la polea en el tensor - carrete sin dientes y bridas.



2. Luego, retire la correa de los engranajes.



## Instalar AS-35219 (Correa 1420)

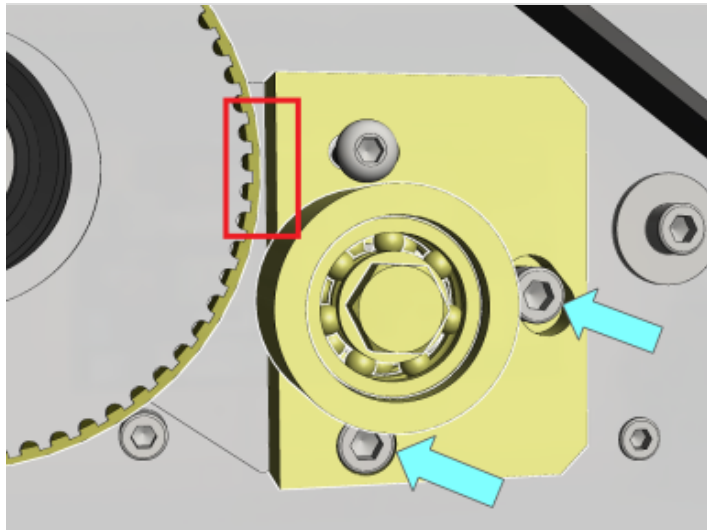
Tiempo estimado de retirada: 15 minutos

### Herramientas necesarias:

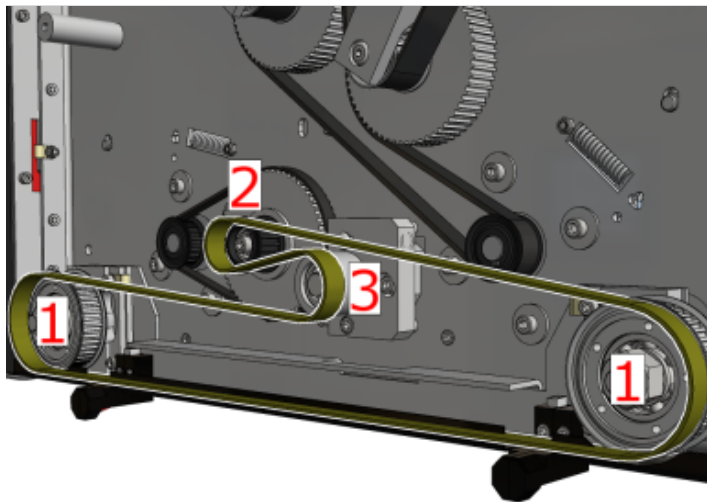
- Llave hexagonal - 3 mm
- Llave hexagonal - 4 mm
- Llave hexagonal - 5 mm

### Procedimiento:

1. El bastidor de rodillos (parte resaltada con polea) debe colocarse en la posición límite izquierda después de quitar la correa.
2. El espacio entre el lado izquierdo del bastidor de rodillos y la correa del engranaje en Y debe ser lo más pequeño posible (punto dentro del marco rojo).
3. Pero no dejes que el Rollerframe toque la correa del Y-Gear.
4. Se deben apretar dos tornillos hexagonales M6x20 apuntados por flechas (llave hexagonal de 5 mm) para evitar que el marco del rodillo se deslice hacia atrás (debido a la fuerza del resorte).
5. Si no es así→ vaya al procedimiento "Aflojar" y establezca la posición del bastidor de rodillos antes de continuar con el procedimiento "Instalar".



6. Instale la correa en el orden que se muestra en la imagen.
7. La polea sin dientes y sin brida debería ser la última.



#### Terminación:

- Apriete AS-35219 (Correa 1420)[as-35219--belt-1420-.html#UUID-31ceec0b-5465-c73b-7e39-8964b2c47ae7\_UUID-756c22c4-4f07-7c62-ed8d-6ebe1a1d8a51]
- Instalar AS-35019 (Rueda y llanta)[as-35019--wheel-and-rim-assembly-.html#UUID-a57833bb-bb28-b866-5f4a-0632c426f81b\_UUID-4b8e5716-7388-69a7-63a2-ed49da768e56]
- 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]

## Loosen AS-35219 (Belt 1420)

Estimated removal time: 10 minutes

#### Tools needed:

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

#### Preparation:

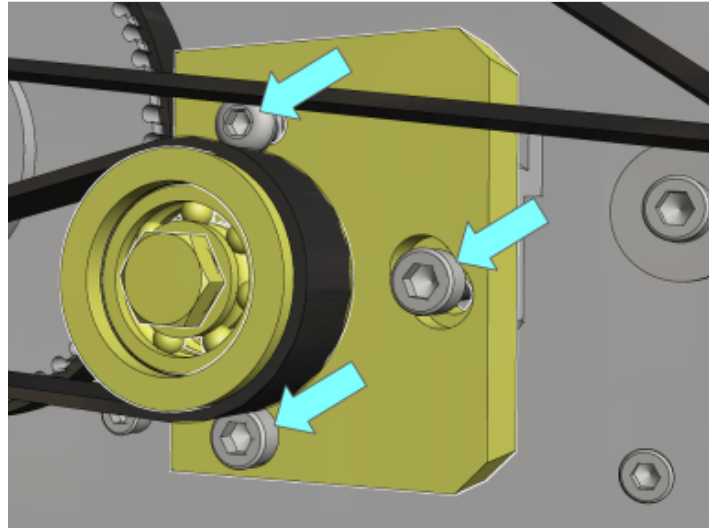
- Remove AS-35021 (Sheet front)[as-35021--r5---as-35945--r5---sheet-front-.html#UUID-31b10256-172a-aa77-27f3-70611fd2f729\_UUID-e830e1e1-7335-76b1-3edd-915246c7f0c6]

**Procedure:**

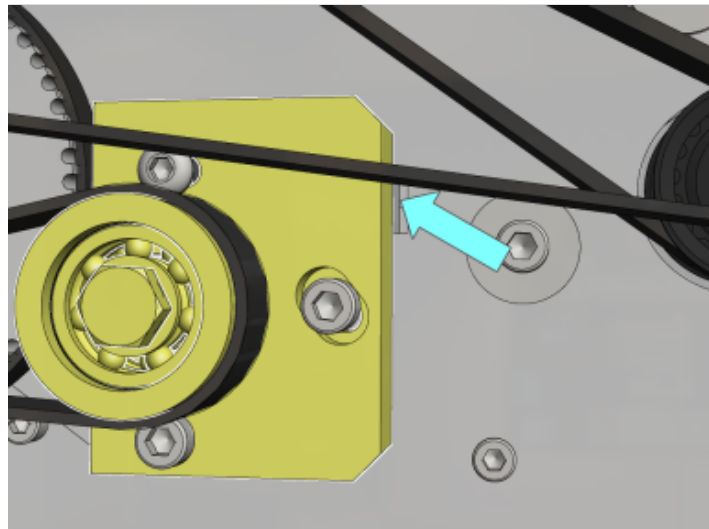
1. Loosen two M6x20 hex socket screws (5mm hex key) and one M6x30 hex socket screw (4mm hex key).

**Note**

Do not remove them, loosen just a little.



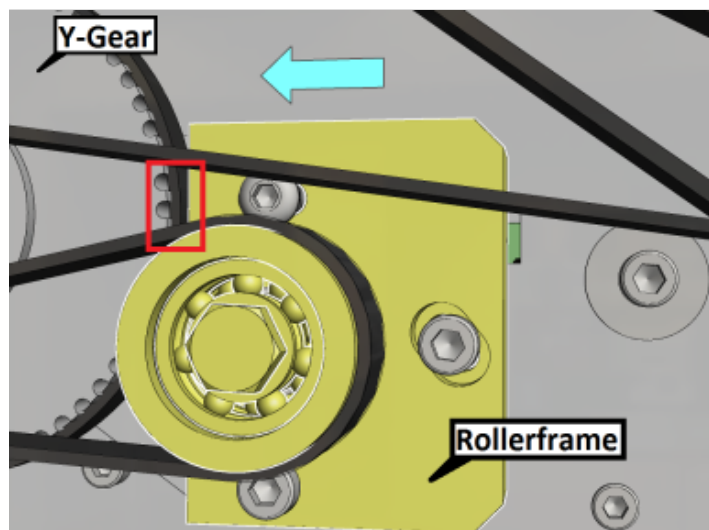
2. Put a 5mm flat screwdriver into the notch (spot pointed by arrow).



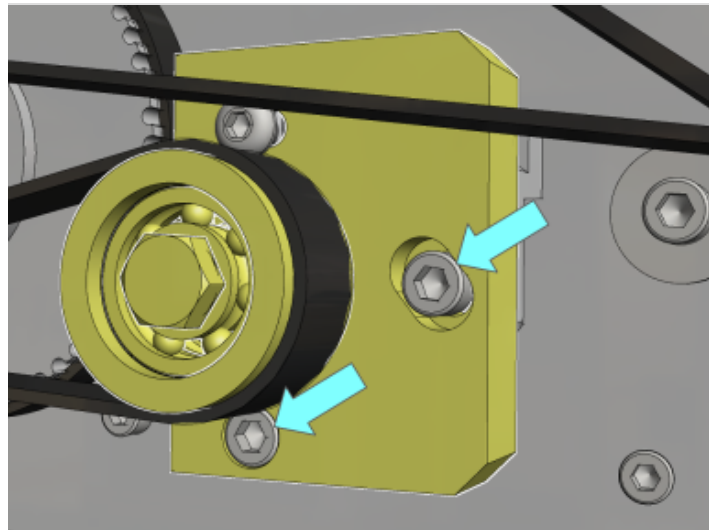
3. Use screwdriver inside the notch to compress spring inside the Rollerframe (press in direction marked by arrow).
4. Gap between left side of the Rollerframe and belt on the Y-Gear should be as small as possible (spot inside red frame).

**Caution**

But don't let the Rollerframe touch belt on the Y-Gear.



5. Still holding the Rollerframe in position (position from previous step) - tighten two M6x20 hex socket screws pointed by arrows (5mm hex key).
6. Use only hand force - just enough to prevent the Rollerframe slide back (because of the spring force).



## Tighten AS-35219 (Belt 1420)

Estimated removal time: 10 minutes

### Tools needed:

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

### 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:

Conditions - to get the proper tension values:

- Robot wheels have to be in Y-drive position (Y wheels in maximum lower trackshift position)
- Y-drive transmission mechanism have to be free to move/revolve

### Robot position

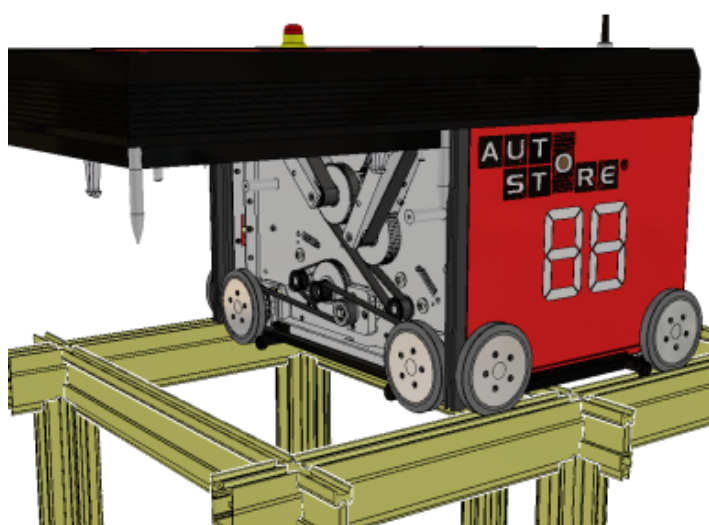
- Shift the Robot wheels to X-drive position.
- Set the Robot between two cells (as in picture).
- Manually shift the Robot wheels to Y-drive position. Robot will still stay on X wheels. Y wheels will go lower than Grid track and will be free to move/revolve.

1. For wheel shift see here.



### Caution

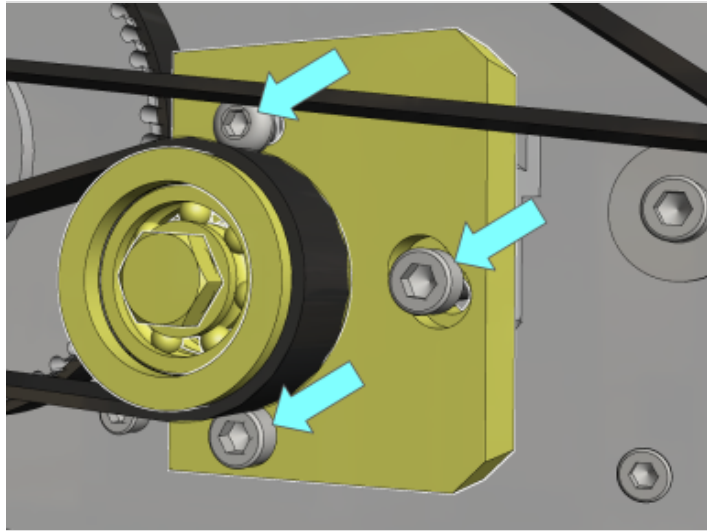
DO NOT tighten AS-11716 belt, when Y wheels are in other trackshift position than is mentioned above.



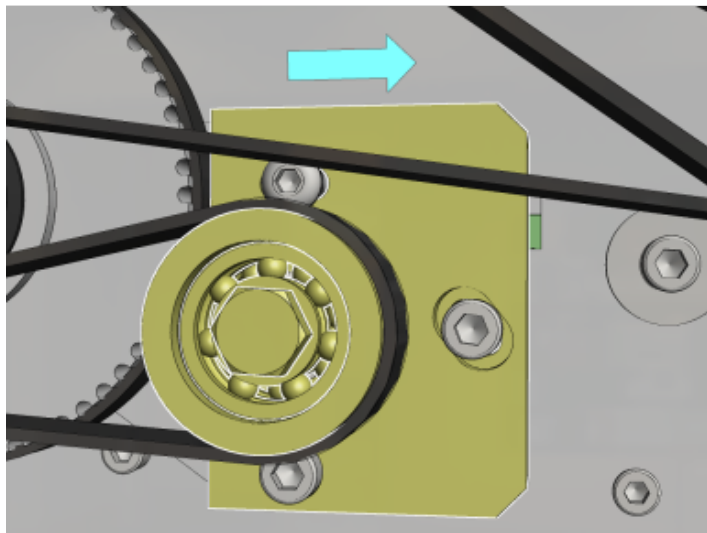
2. Loosen two M6x20 hex socket screws (5mm hex key) and one M6x30 hex socket screw (4mm hex key).

**Caution**

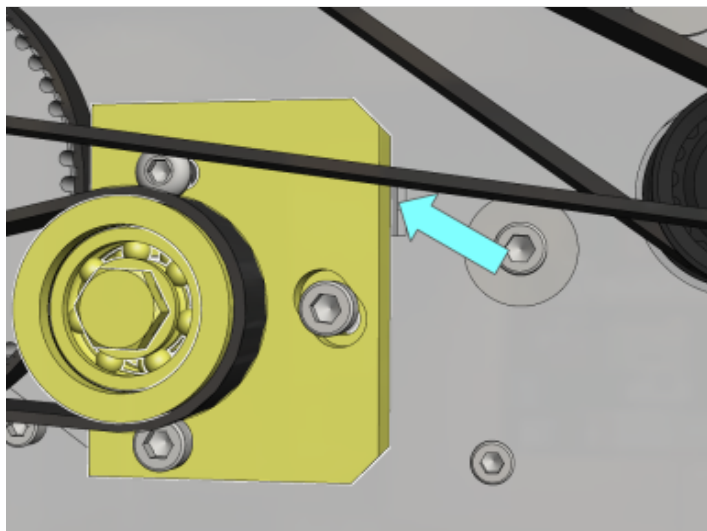
Do not remove them, just loosen a little.



3. Rollerframe (highlighted part with pulley) will slide right because of the spring force.



4. Put a 5 mm flat screwdriver into the notch (spot pointed by arrow).



5. Use screwdriver inside the notch to compress and release spring inside the Rollerframe (press in direction marked by arrow).
6. Do it few times to check if tensioning mechanism works fine.

#### **A** Caution

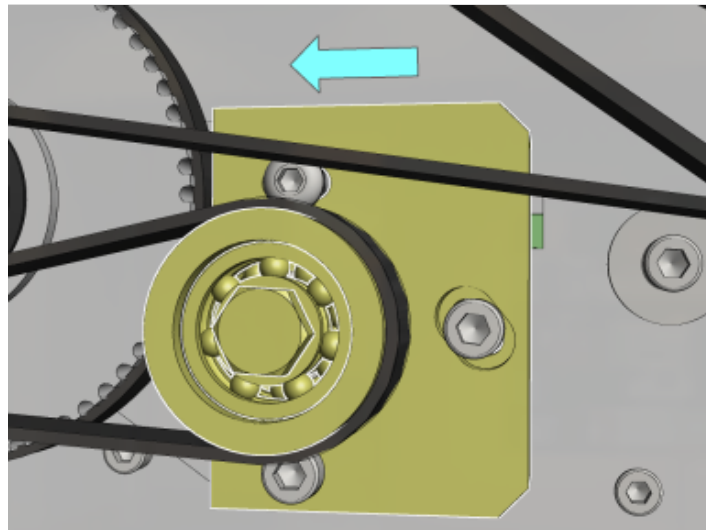
All three screws should be loosen just a little. Only enough to allow the Rollerframe be able to slide smoothly.

Screws too loose:

- Rollerframe will sticks out from Robot Frame -  
& can cause too high belt tension

Screws too tight

- Too strong friction under Rollerframe → can cause too low belt tension

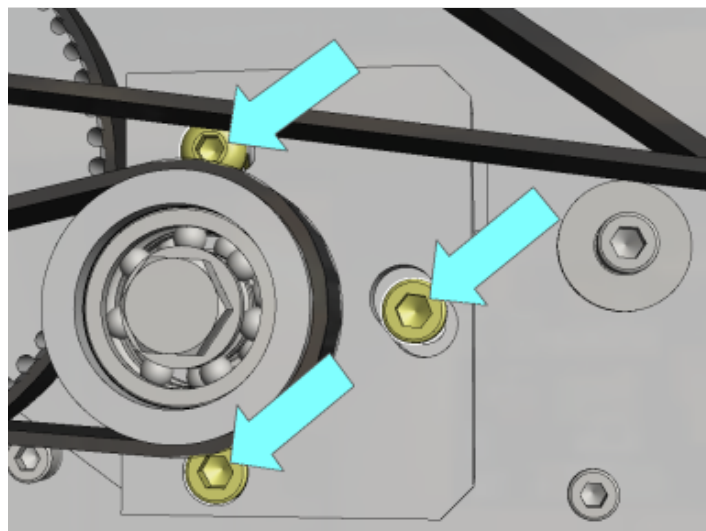


7. Tighten screws on the Rollerframe. But not too much, only enough to not allow the Rollerframe move in position.
8. Use order for screwing as is on the picture.
9. Go to Measurement belt tension, find proper tension value for AS-11716 belt in the table.
10. Measure the belt.



#### Note

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



If tension is too low:

1. You have to adjust position of the Rollerframe 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 Rollerframe in position (punching direction the same as arrow shows).

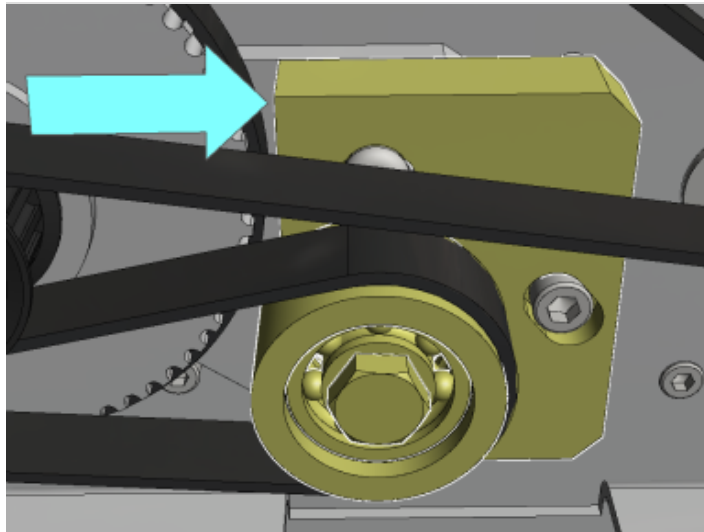
If tension is too high:

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



#### Note

Make sure screws (mentioned in previous step) are tighten only a little bit. If they are too tight adjustment by hammer may be not possible.



2. Measure belt tension again.

1. When belt tension is proper → Use order for screwing as is on the picture and tighten screws with torque:

- a. Screw 1 - 15 Nm
- b. Screw 2 - 14 Nm
- c. Screw 3 - 14 Nm



#### Note

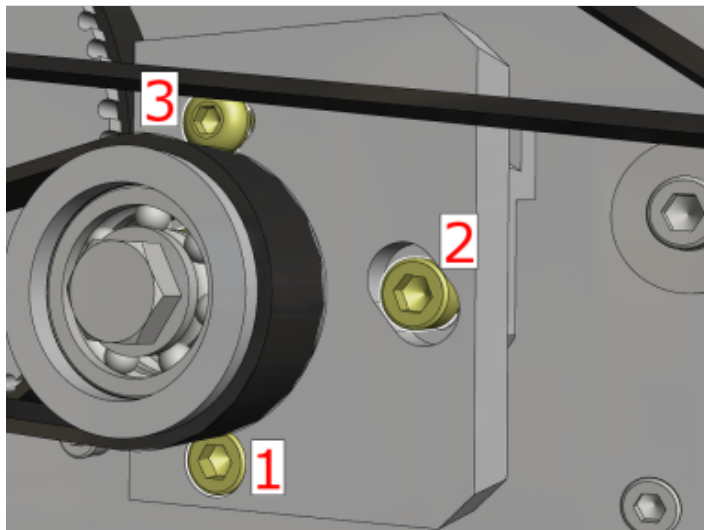
Make sure the Rollerframe assembly is in the same position (after screwing) as was before screwing.

Belt tension value may increase after tightening the screws.



#### Caution

Make sure belt tension does not exceeded maximum value.



#### 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]