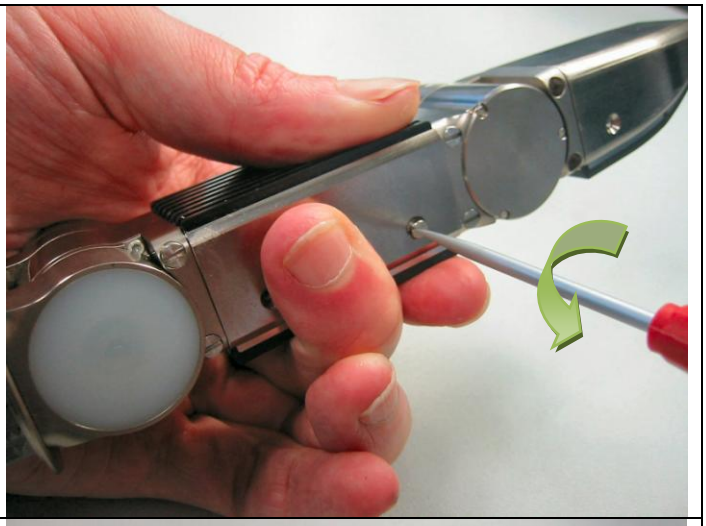
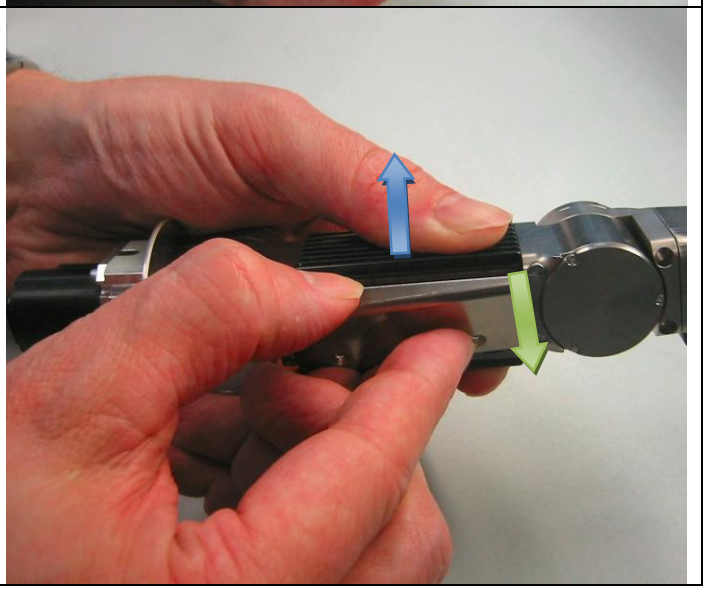
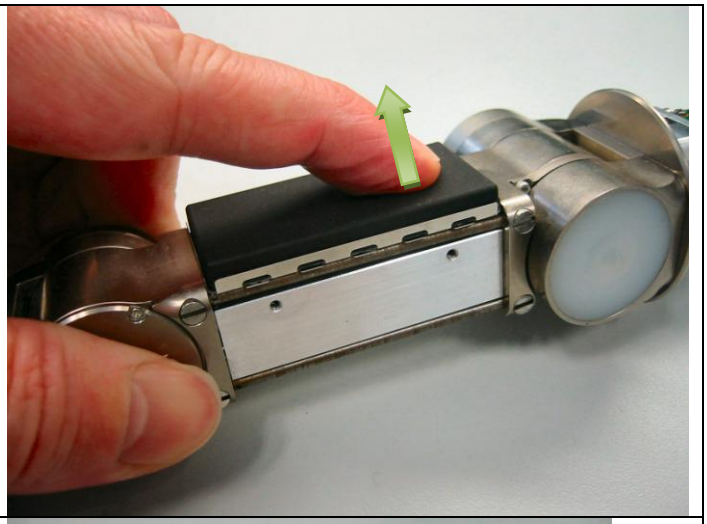
EXCHANGING THE TACTILE SENSORS OF THE SDH

To exchange the tactile sensors of the SDH please follow the steps below.

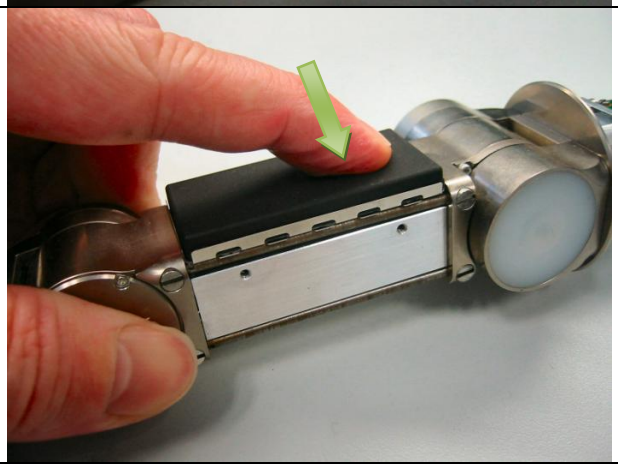
Attention: Since you will get in contact with sensitive electronic parts of the SDH please take precautions to avoid electro static discharge (ESD). This can be done by wearing ESD conforming shoes, an ESD protection wristband or a ESD support plate. In case none of these is available it might be sufficient to “electrically ground” yourself before touching the sensitive parts. This can be done e.g. by touching the bare metal surface of a grounded housing or a grounded radiator.

Unmounting the proximal tactile sensor:

Step 1: Start with a mounted distal sensor. Unscrew the four screws on the side of the proximal finger limb.	
Step 2: 1. Remove the silver metallic side plates in the direction of the green arrows. 2. Remove the black back plate in the direction of the blue arrow.	

Step 3: Turn the finger 180° to make the tactile sensor face up, then remove the actual sensor pad in the direction of the arrow.	
Step 4: Finished. The proximal tactile sensor has been unmounted. • Please do not touch the contacts of the electrical connector! • Please do not lose the o-ring	

Remounting the proximal tactile sensor:

Step 1: Start with a finger with an unmounted proximal sensor. • Please do not touch the contacts of the electrical connector! • Please ensure that the o-ring is present	
Step 2: Insert the distal tactile sensor pad into the contacts. Apply gentle pressure in the direction of the arrow.	

Step 3:

Add the black back plate on the opposite side of the sensor.

Step 4:

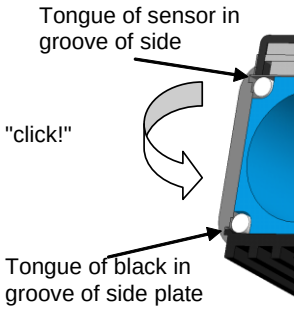
Turn the finger 180° to make the tactile sensor face down.
Then add the first silver metallic side plate. This plate has two grooves:

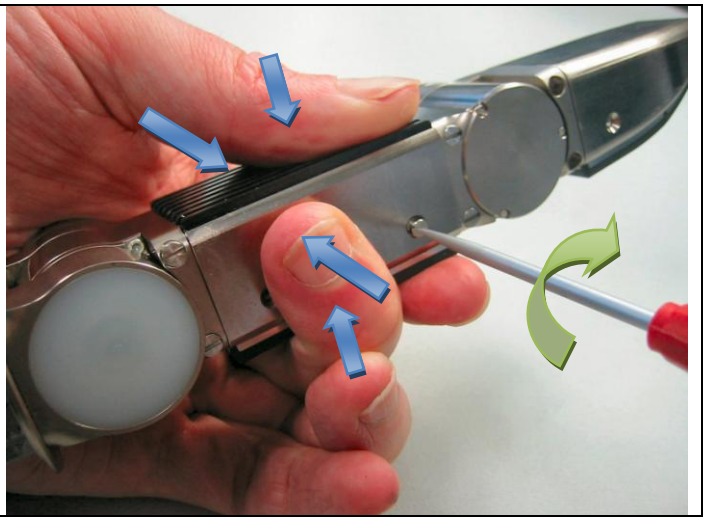
- one for the „tongue“ of the tactile sensor pad,
- the other one for the black metallic back plate.

Start on the side with the sensor (green arrow) and fit the „tongue“ of the sensor into the lower (in this picture) groove of the silver metallic side plate.

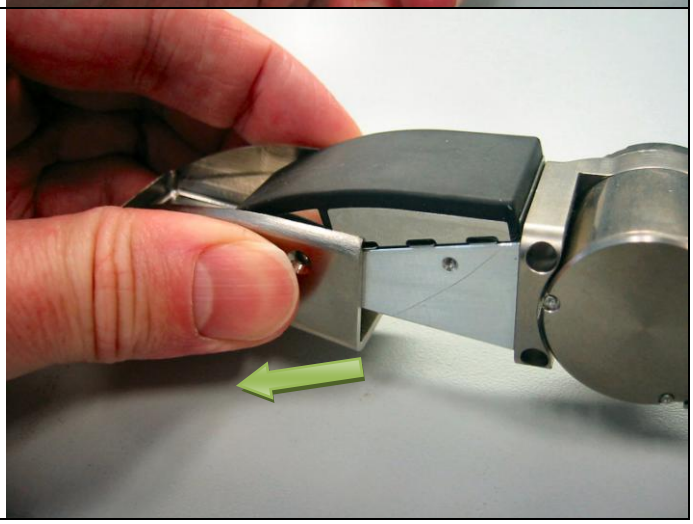
Step 5:

Apply constant pressure in the direction of the blue arrows onto the black back plate and the tactile sensor. This can be done like shown in the picture by the left (human) hand.
Then apply pressure in the direction of the green arrow until a “click!” sound can be heard. The click indicates that the tongue of the black back plate snapped into the groove of the side plate.



Step 6: Keep up applying pressure to all sides of the proximal finger limb (blue arrows). This can be achieved e.g. as shown in the picture by enclosing the robot finger limb with the human fingers of the human left hand. Then screw in the two screws to fix the side plate. Repeat from Step 4: for the second side plate.	

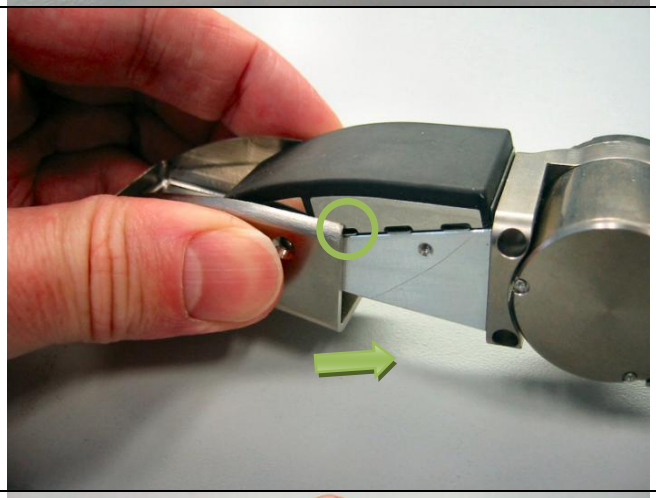
Unmounting the distal tactile sensor:

Step 1: Start with a mounted distal sensor. Unscrew the two screws on the side of the fingertip.	
Step 2: Remove the finger tip housing in the direction of the screw.	

Step 3: Remove the actual sensor pad in the direction of the arrow.	
Step 4: Finished. The distal tactile sensor has been removed. • Please do not touch the contacts of the electrical connector! • Please do not lose the o-ring	

Remounting the distal tactile sensor

Step 1: Start with an unmounted distal sensor. • Please do not touch the contacts of the electrical connector! • Please ensure that the o-ring is present	

Step 2: Insert the distal tactile sensor pad into the contacts. Apply gentle pressure in the direction of the arrow.	
Step 3: Insert the finger tip housing in the direction of the arrow. Make sure that the grooves of the finger tip housing meet the marked „tongue“ of the tactile sensor.	
Step 4: Apply pressure onto the fingertip in the direction of the arrow until there is no more gap at the marked point .	
Step 5: Screw the two screws on the side of the fingertip