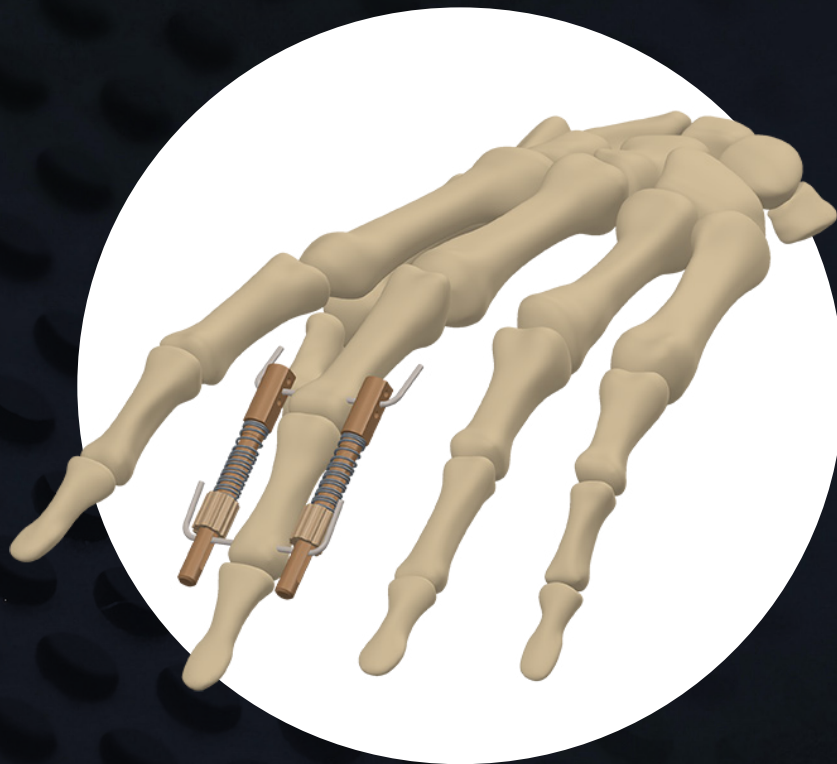


Gex-Finger

dynamic finger external fixator



Technical notes

The Gexfix external fixator is designed for treatment of diaphyseal and epiphyseal fractures. Its versatility makes osteotomy fast and efficient.

Components are completely compatible between the various models (small, large or hybrid).

- Pins can be inserted independently in any plane. They are then connected with carbon tubes to form the fixation frame.
- Pin cluster clamps holding 2 or 3 parallel pins provide a simple frame in one plane.
- Three-plane fracture reduction and intraoperative or post-operative correction of fracture alignment is possible.

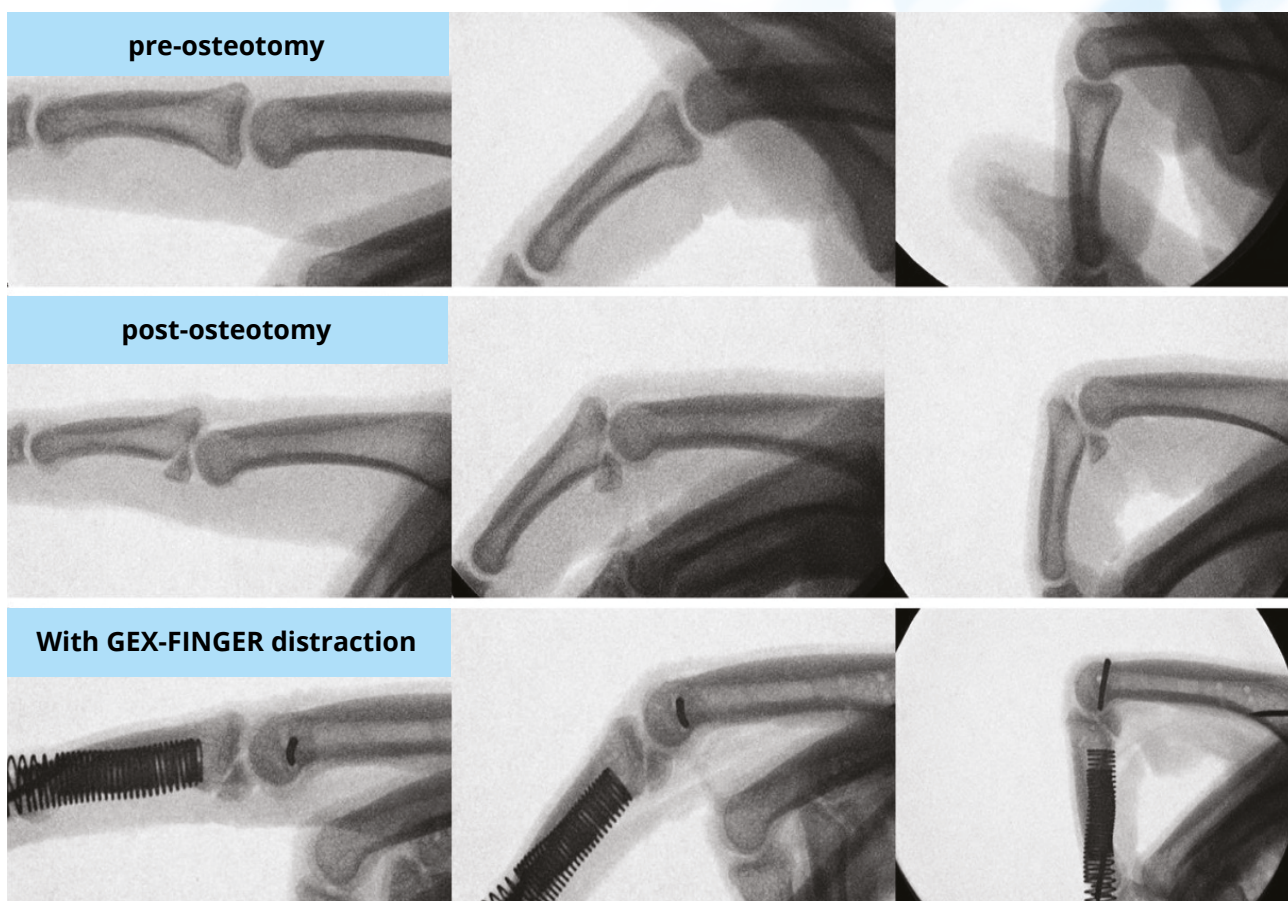
Technical features

- MRI compatible.
- Titanium and surgical steel.
- Carbon fibre.
- Reduces post-op pain.
- Swiss made.
- Made of high performance composite material providing.
- The high-performance composite materials are radiolucent (transparent to X-rays), allowing better visualisation of the fracture.
- Maximum stability.
- Significantly reduced weight compared with other external fixation frames.
- High strength components result in frame configurations that are more compact than those of other systems.
- Short learning curve for the surgeon.
- Versality limited only by the anatomy.
- Configuration possibilities are limited only by the anatomy.
- Sterilisation boxed sets contain assorted components for construction of a virtually unlimited variety of frame configurations.
- Can be used for definitive or temporary fixation.

Method of installation

Each rod is composed of a base and a stem extending from the base with a sliding groove extending along the longitudinal axis of the stem. The GEX-FINGER is attached to the center of rotation of the head of the proximal phalanx using a Kirschner (K) wire. The distal attachment is achieved by a second K-wire into the middle phalanx using the sliding hole of the stem of each rod. Spirals of the springs are integrated between the head of the rod and the nut. By turning the nut/spring will be adjusted the distraction force between the proximal and the distal attachment (second K-wire). An optional third K-wire (reduction pin) can be drilled through the sliding hole and the second phalanx.

Subluxation of the PIP joint was created by osteotomy of the articular surface of the second phalanx and reduction achieved after application of GEX-FINGER.



I. Presentation

Gex-Finger is used to reduce unstable fractures-dislocations of the PIP (proximal interphalangeal) joint and DIP (distal interphalangeal) joint.

The Gex-Finger Kit is composed of a Gex-Finger's guide, Kirschner wires and two Gex-Finger.



GexFinger's guide



GexFinger



Kirschner wires

Component details:

- Gex-Finger details

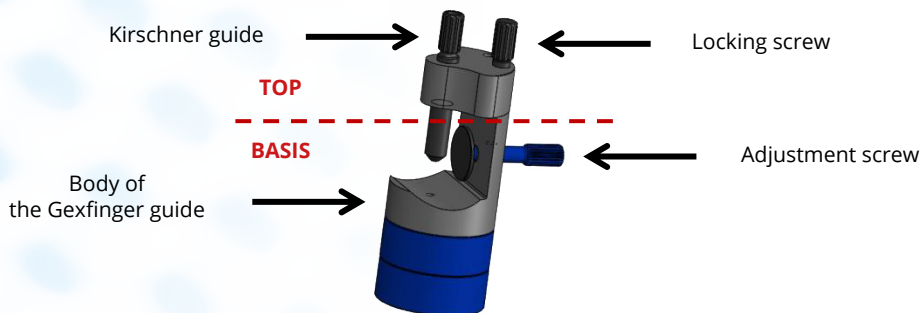


Body



Nut

- Gex-Finger's guide details

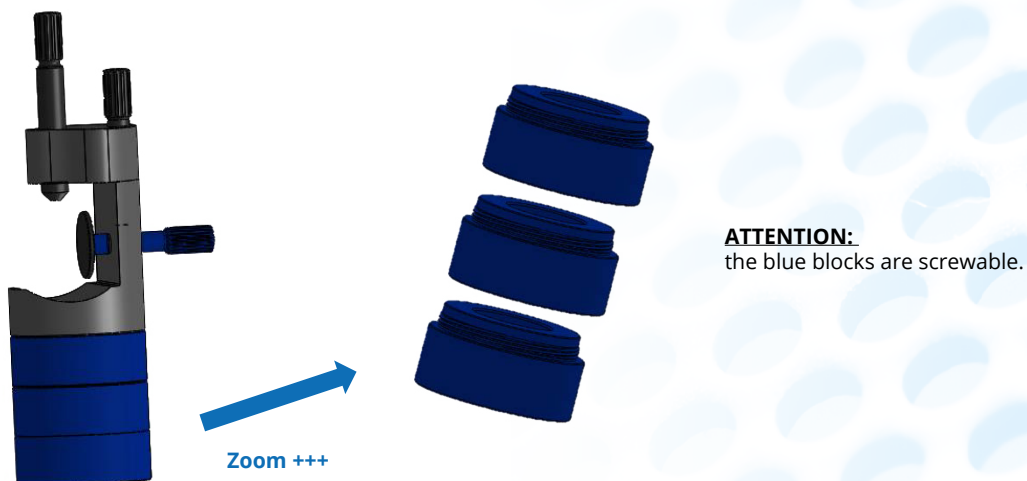


To properly use Gex-Finger, you have to respect the following surgical technique.

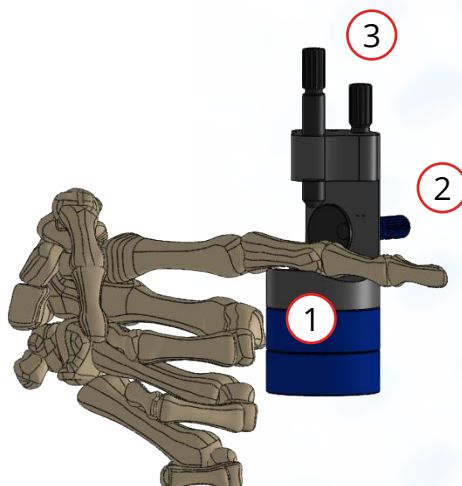
II. Surgical Technique

Step 1: Installation of the finger

Position the patient hand on the lateral side for the surgical intervention.
Adjust the Gex-Finger's guide height using the removable blue blocks (you can use 0 to 3 block(s)).

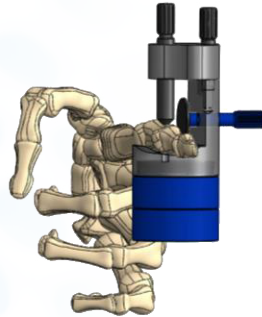


- Put the finger on the cylinder bottom (1).
- Position the operated finger in the Gex-Finger's guide using the adjustment screw (2).
- Lock the adjustment screw with the locking screw (3).

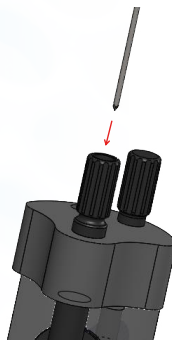


Step 2: Proximal Kirschner wires implantation

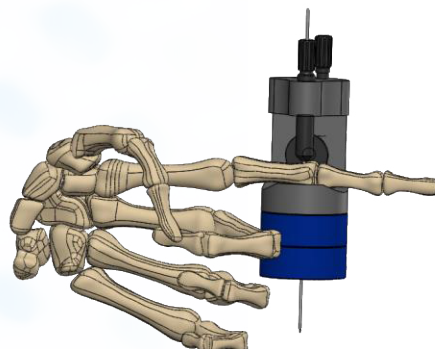
Use the Gex-Finger's guide to implant the Kirschner wire:



- Screw the Kirschner guide until it is in contact with finger.
- Insert the Kirschner wire inside the Kirschner guide.

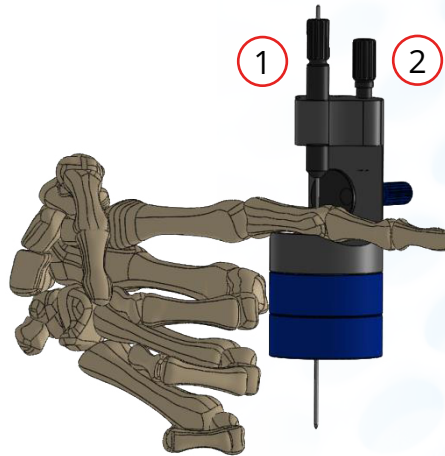


- Screw the proximal Kirschner wire until it is correctly positioned.

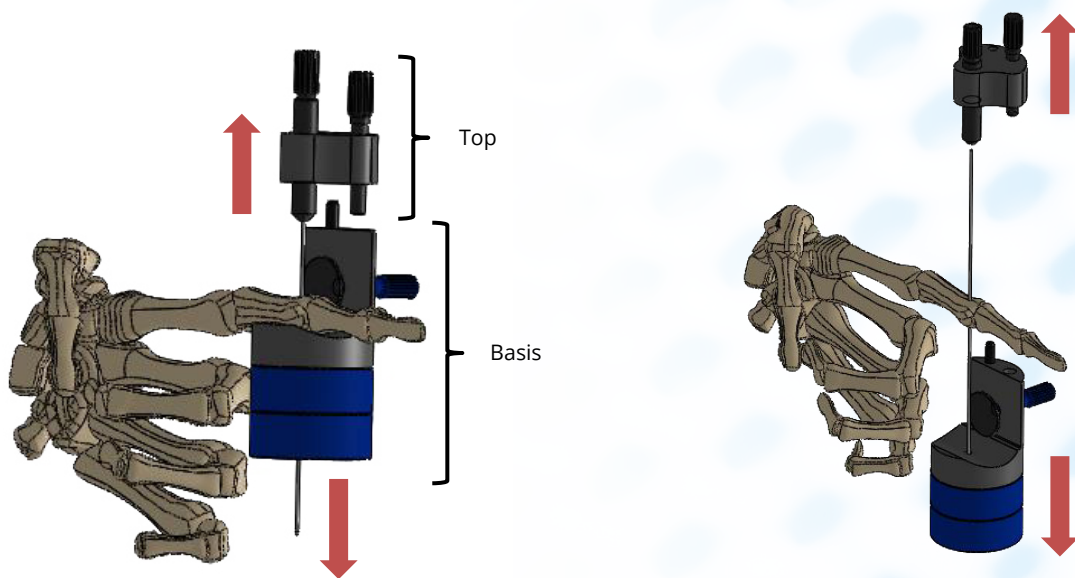


Step 3: Gex-Figer's guide disassembling

- Unscrew the Kirschner guide a little bit (1).
- Unscrew the locking screw to release the adjustable screw (2).

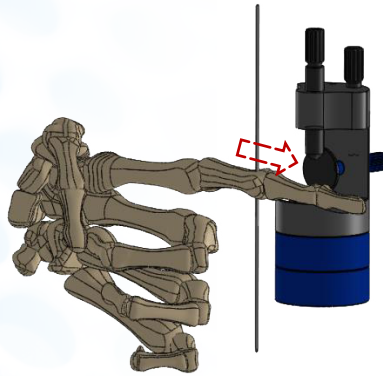


- Separate into two parts (top and basis) the body of the Gex-Figer's guide.
- Release the finger and the Kirschner wire from the Gex-Figer guide (slide the two parts along the wire).



Step 4: Distal Kirschner wires implantation

- Reassemble the two part of the Gex-Finger guide.
- Move the finger to implant the distal wire.
- Apply the protocol above described (Step 2 and 3).



Step 5: Gex-Finger assembly

Assemble the two parts of the Gex-Finger.

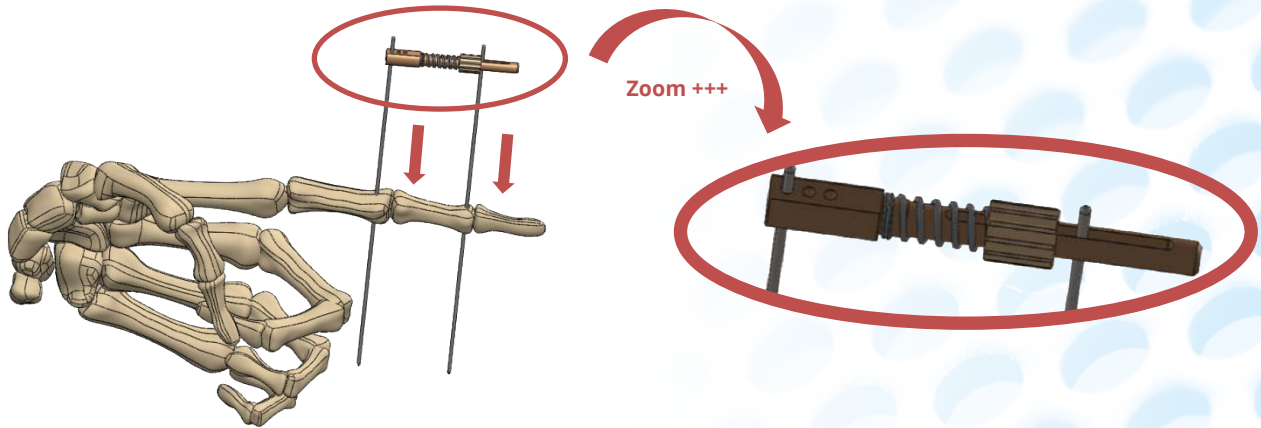
- Put the rod of the body inside the spring of the nut.
- Assembly two parts by screwing the two springs.
- Completely screw the two springs without strength.



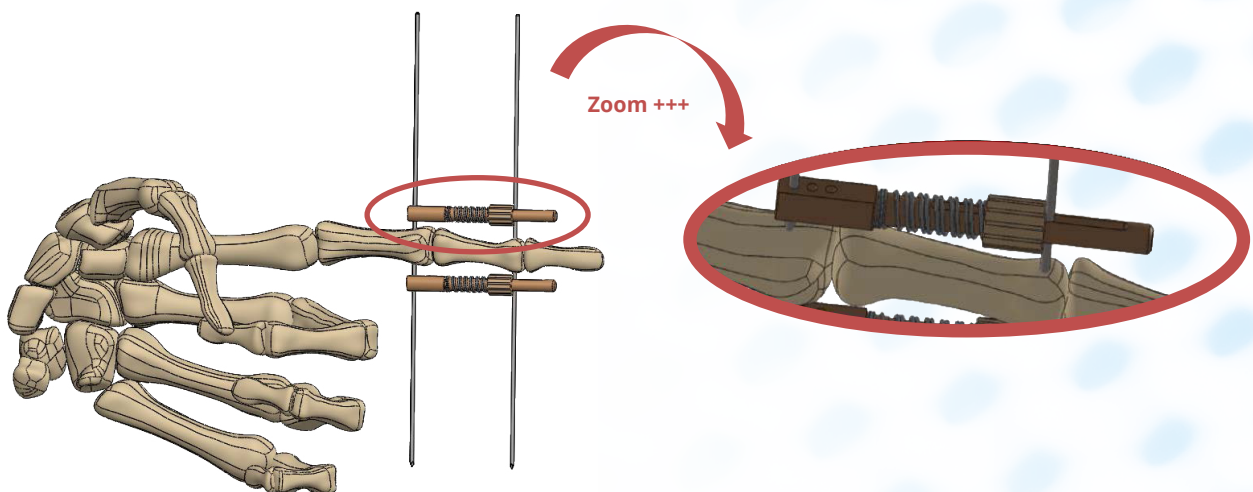
Step 6: Gex-Finger Positioning

- Install consecutively the two Gex-Finger, by sliding the Gex-Finger along the Kirschner wires.

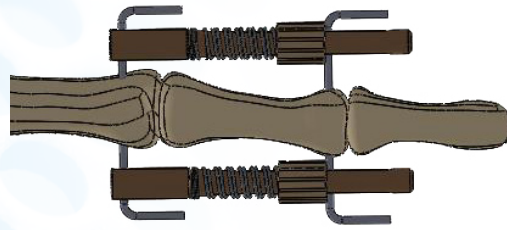
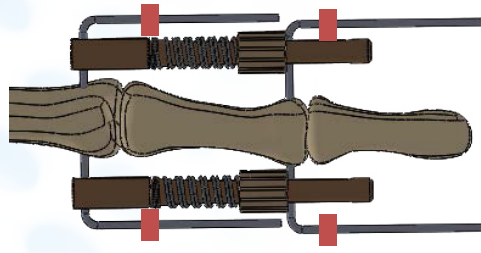
ATTENTION: The Part 1 (with 3 holes) is oriented to the proximal side of the joint.



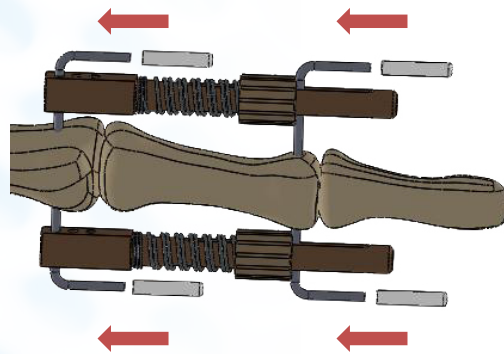
- Unscrew the spring 2 until the ring is in contact with the wire: the Gex-Finger are locked in right positions.



- Bend (90°) and cut (around 1 cm from the bend) the wire.



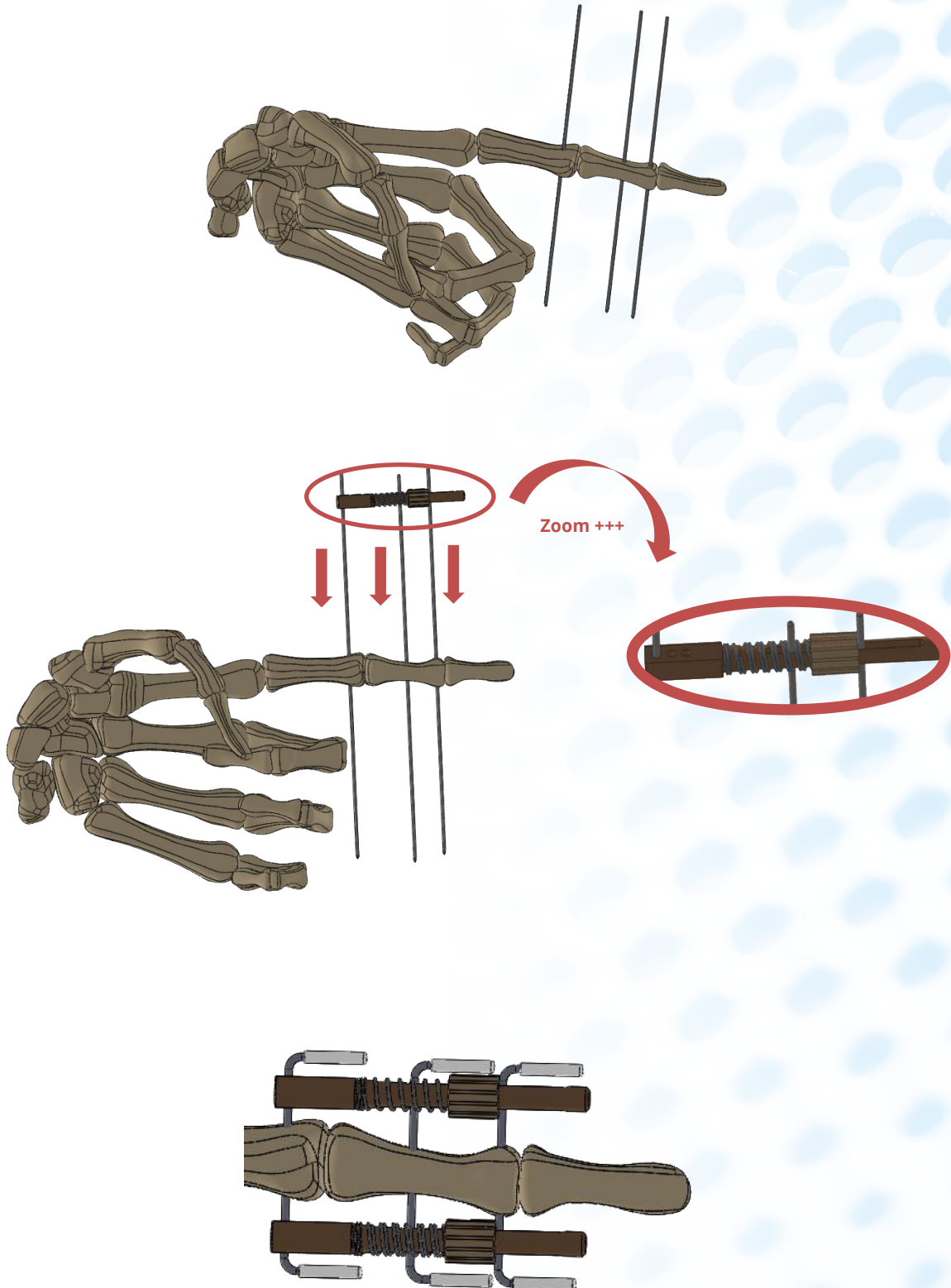
- Put the wire caps.



III. Option

Step 7: Gex-Finger adjustments

Screw or unscrew the Gex-Finger's ring to reach the optimal joint extension.
It is possible to use a 3rd Kirschner wire, implanted between two original wires.





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