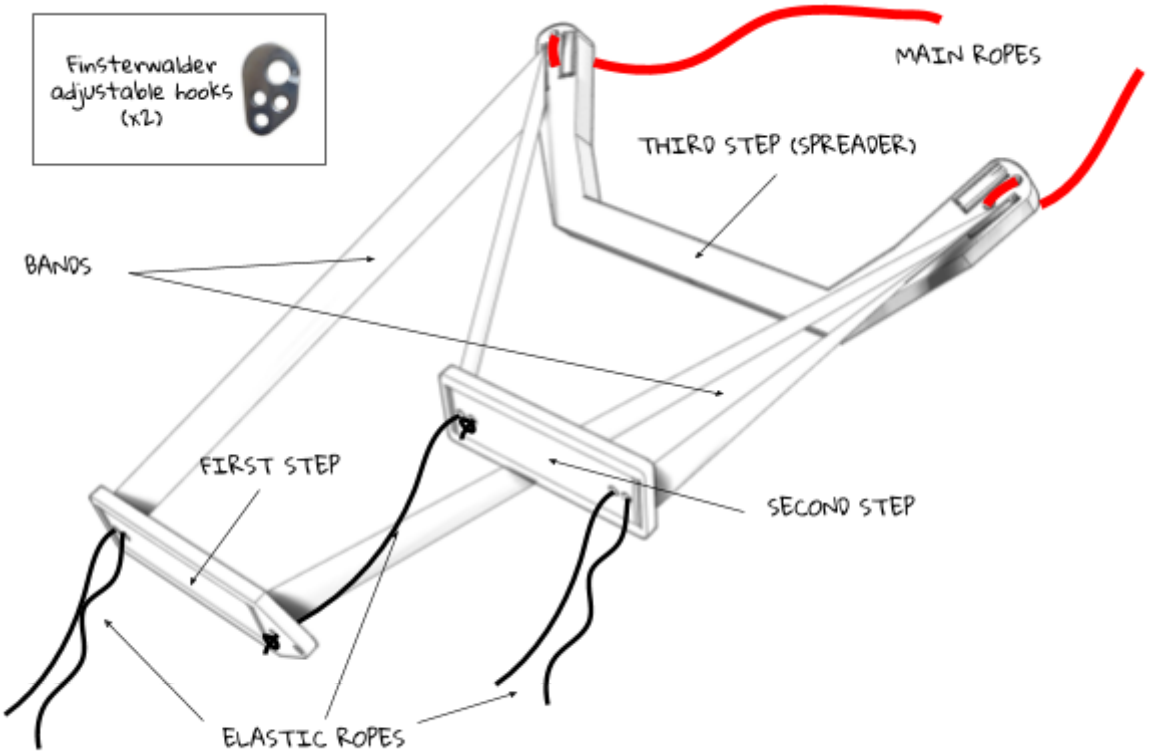
USER MANUAL
(1.x and 2.x versions)

Speedbar parts



Settings

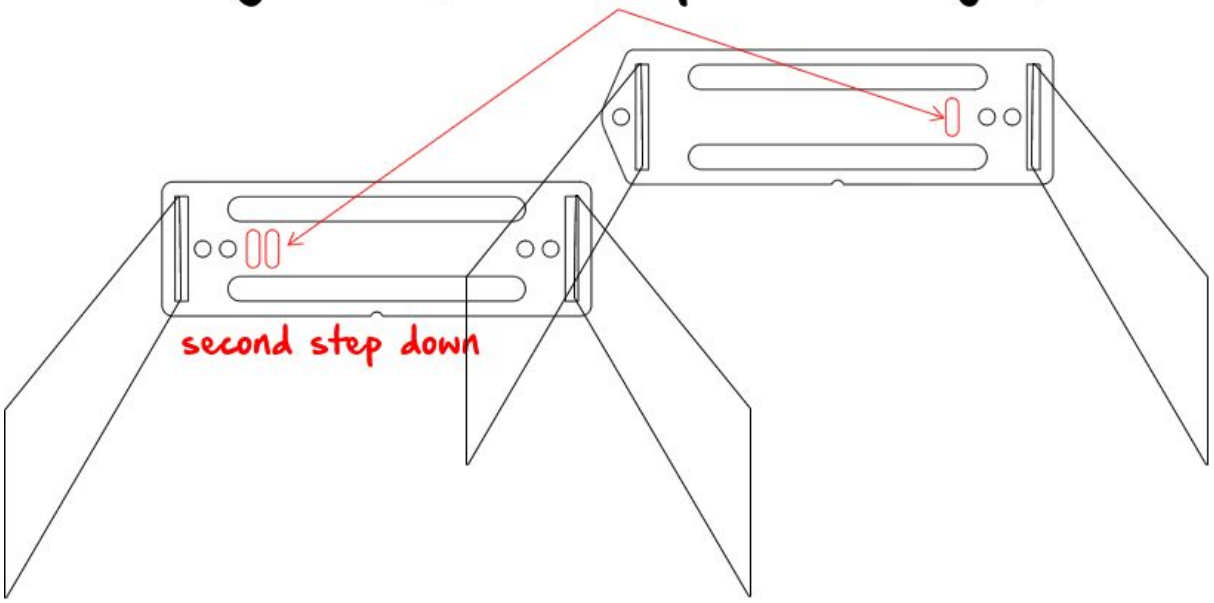
1) Layout setting (First step on right or left)

Default configuration is intended for the right-handed people, so the first pedal was placed to the right to ensure that the third speed was applied with the strongest leg in long and fast cross country flights.

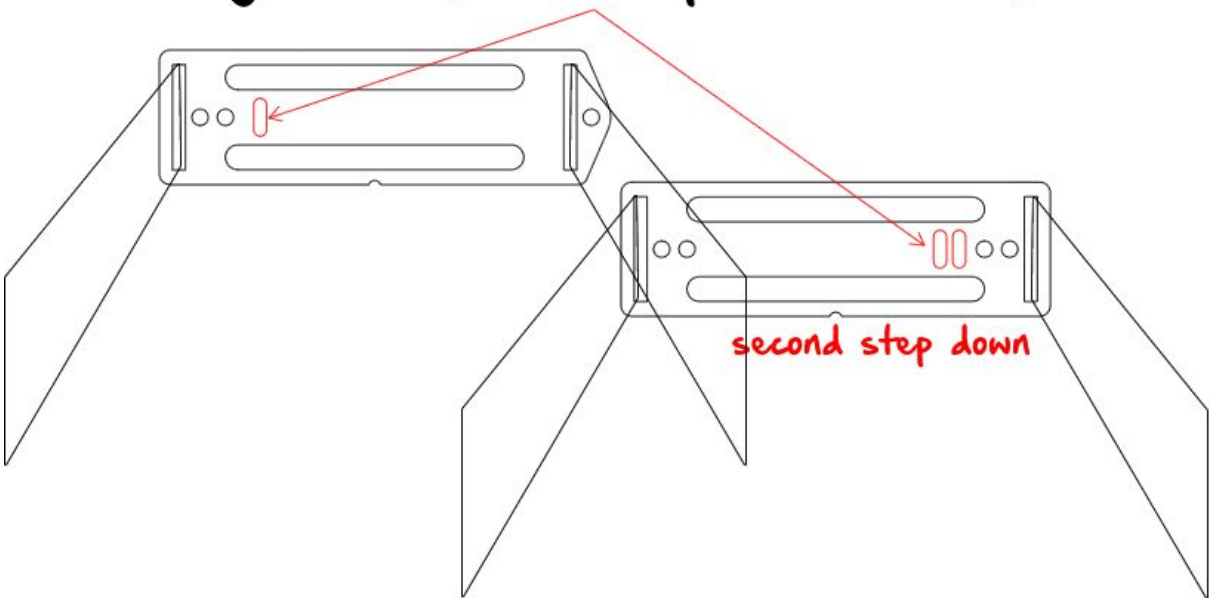
Jump to “chapter 2” if you like default setting.

Switch it if left-handed or according to your preferences.

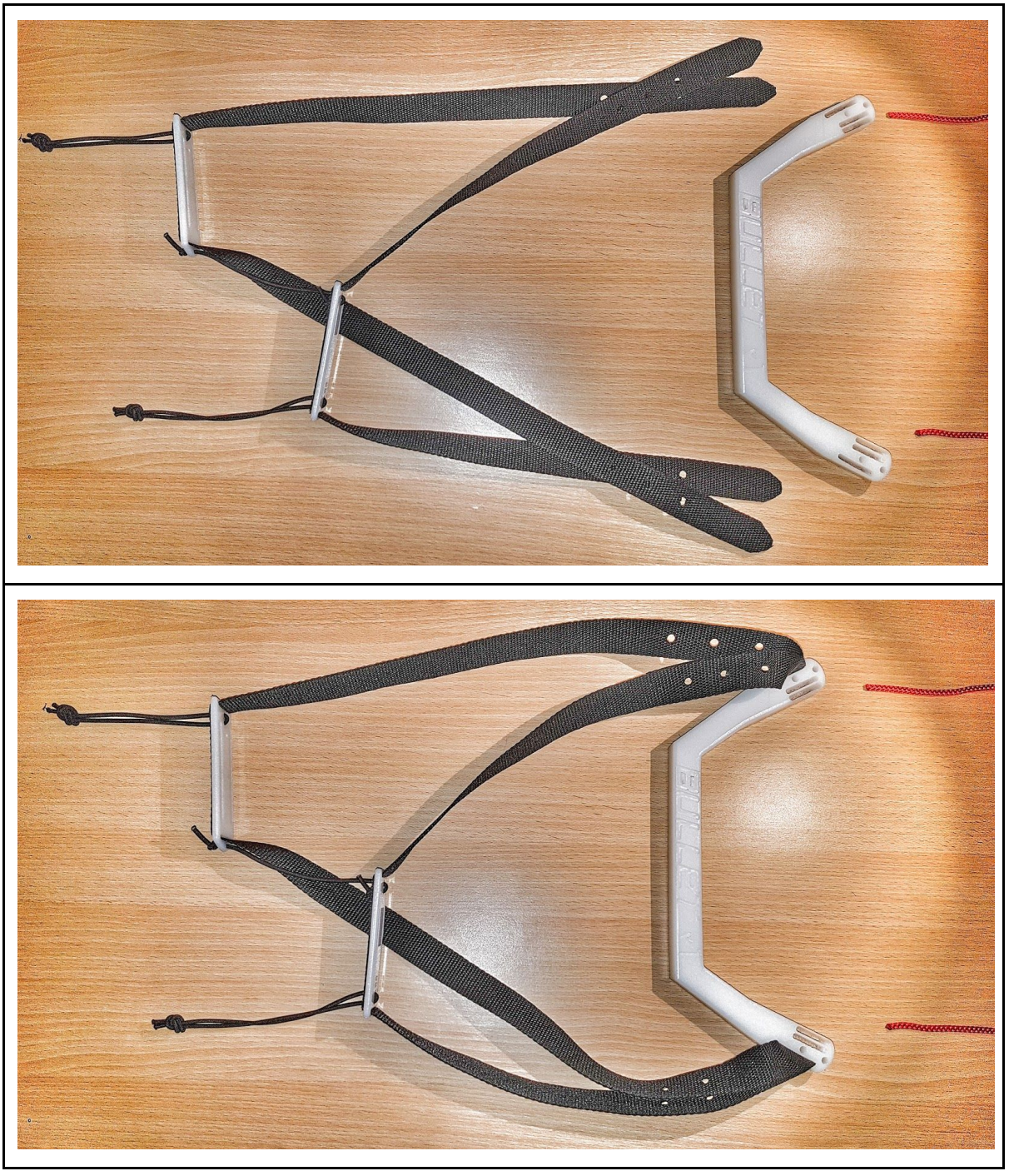
Layout 1 (first step to the right)

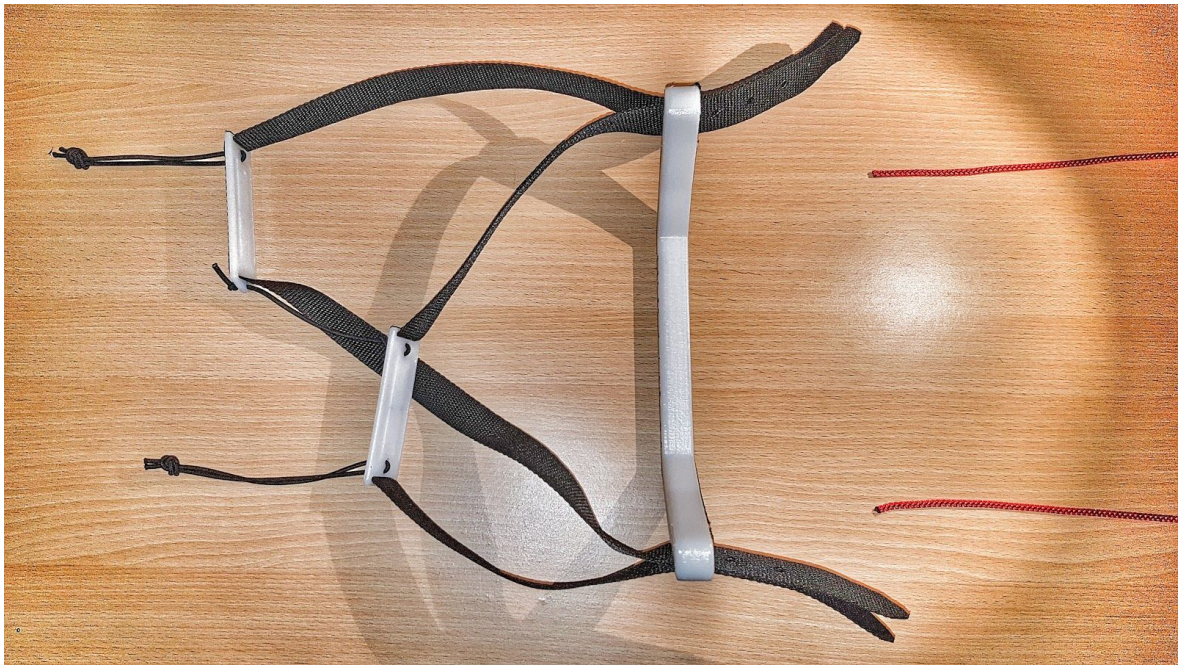


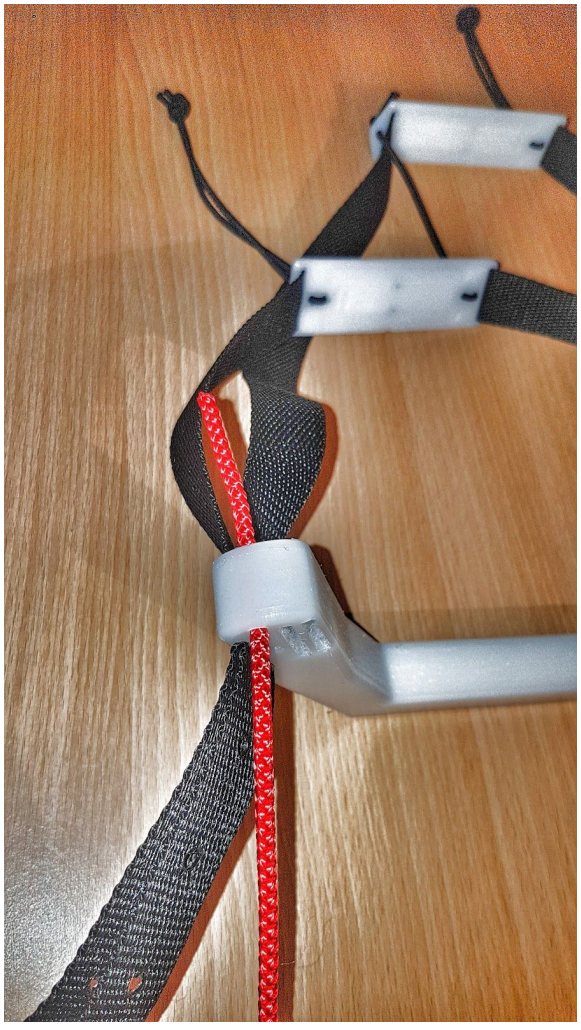
Layout 2 (first step to the left)

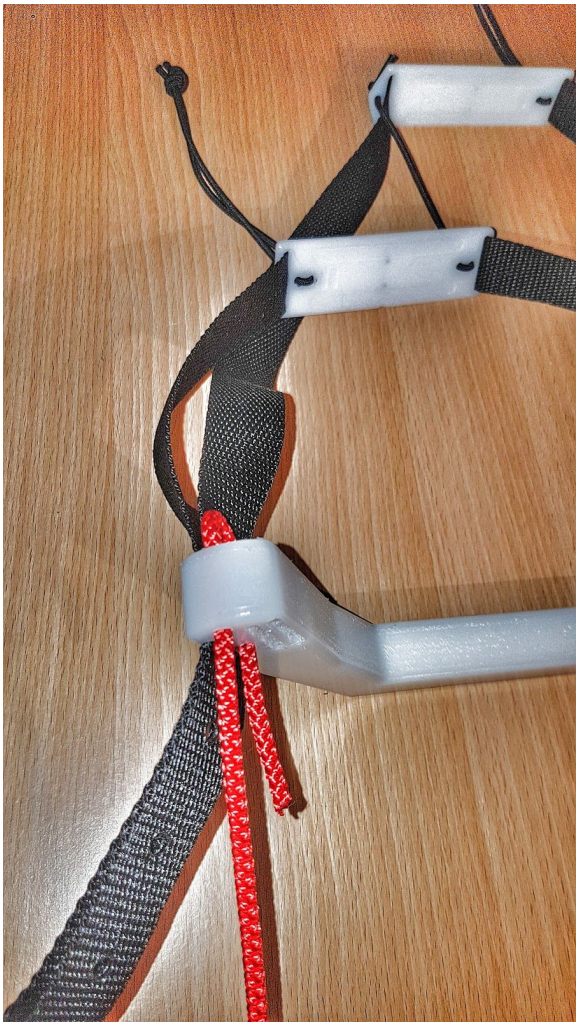


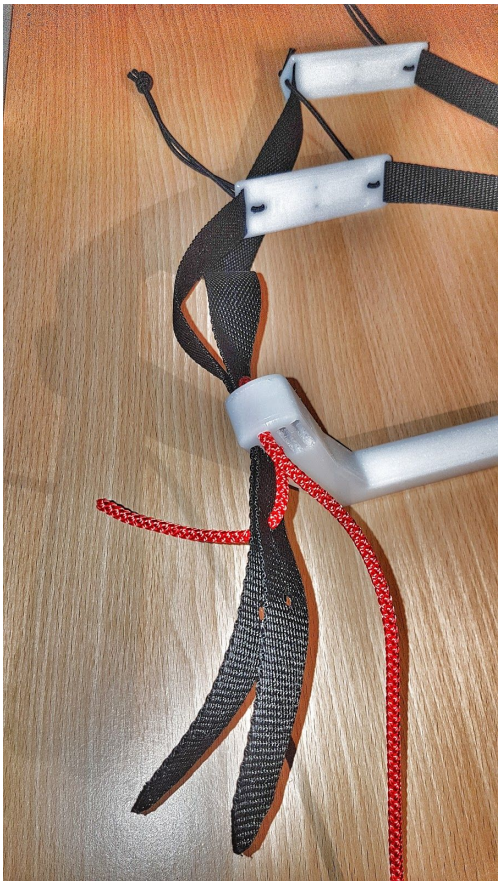
- **Bullet V1.X assembly (first step to the right)**
(put your second step below the first unlike shown):

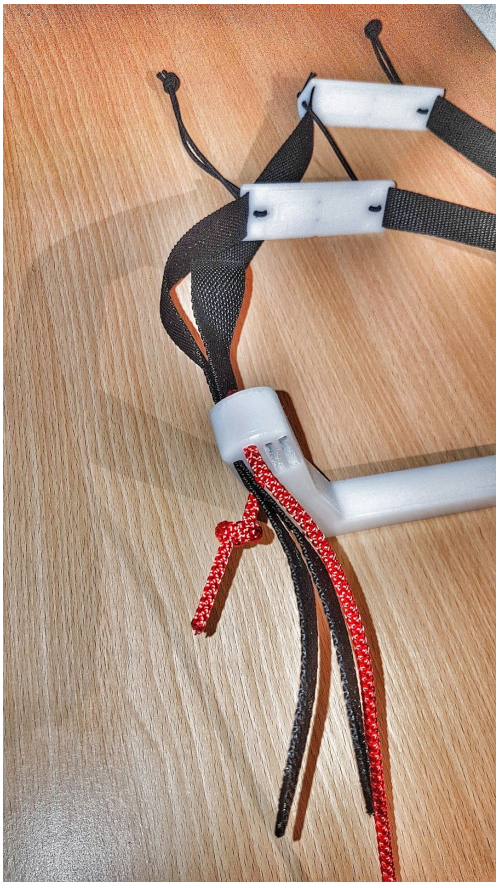


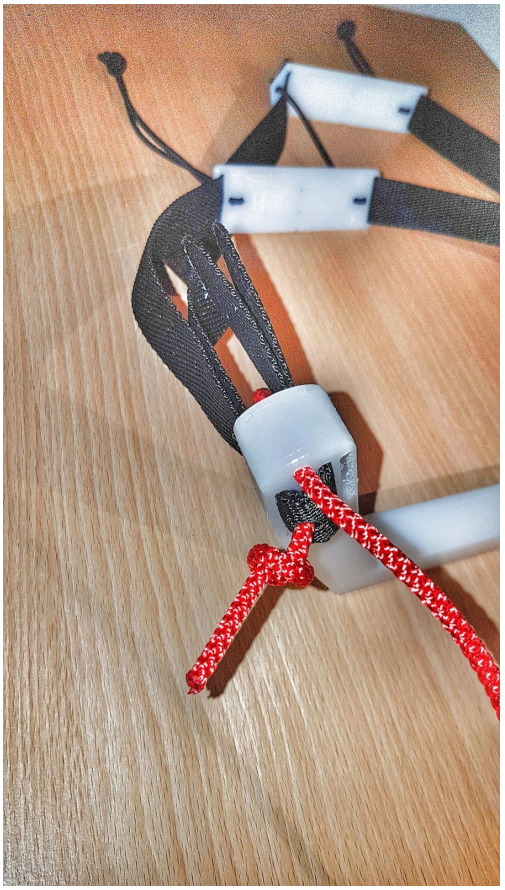


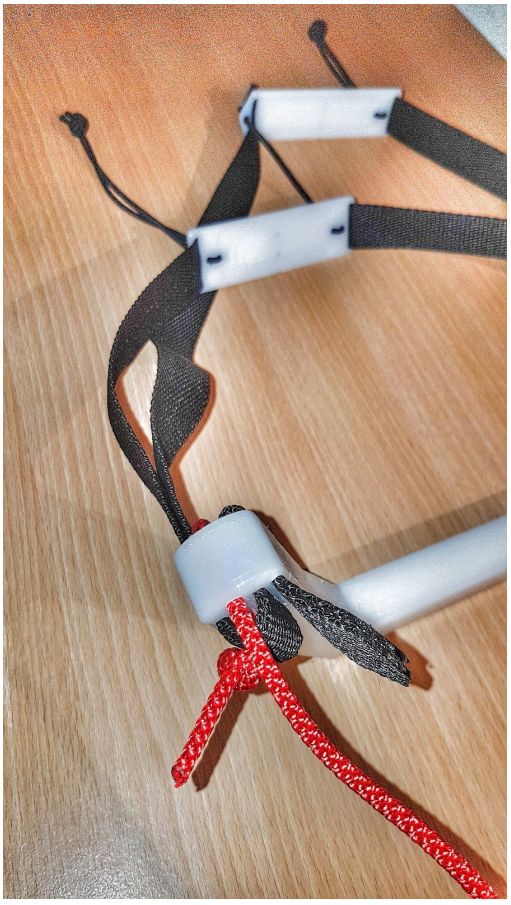




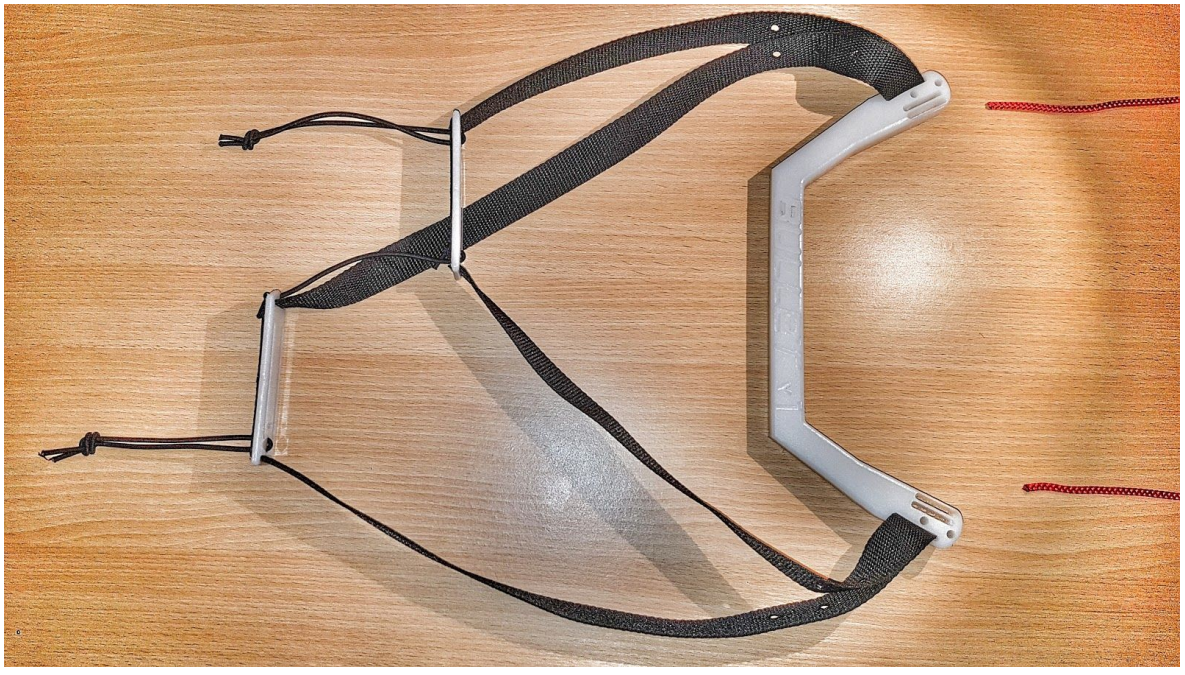








- **Bullet assembly images (first step to the left):**



The rest of assembly is the same as shown in the images above (first step to the right)

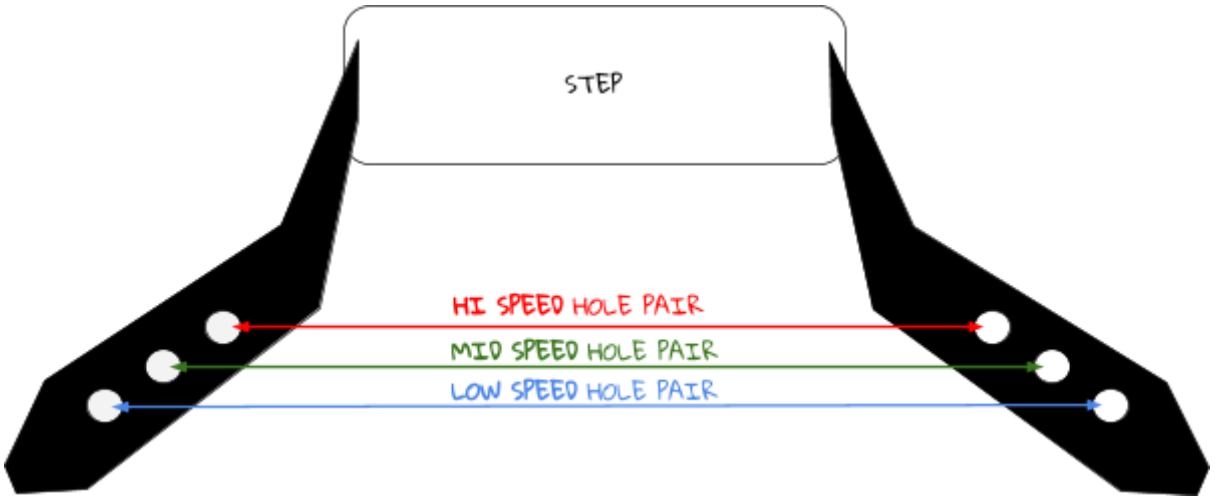
To **switch the default layout**:
(**Video instructions: https://goo.gl/photos/vHLag3x5pUZt2WPFA**)
a) Untie the two simple knots of red main ropes
b) Pull out the two red main ropes from the third step (spreader)
c) Pull out the black bands from the third step (spreader)
d) Turn the bands+steps system 180 degrees around longitudinal axis, keeping second step and middle elastic rope in upper position.
e) Insert the bands pairs inside the external window of third step (spreader)
f) Insert the ropes from back part of spreader/upper holes. Continue to front part of spreader inside the lower hole.
g) Insert the ropes in favorite hole of bands (to set the speed of the first two steps, middle holes are default)
h) Tie a simple knot on ropes (with equal rope remnant beyond the knot (approx 2 cm/1 inch minimum)
i) Insert the bands pairs inside the middle and external windows of third step (spreader)

2) Steps lengths adjustment

We suggest to try default bands lengths (steps speed) for at least one flight before to personalize it.
Jump to "chapter 3" if you want to try default lengths.

To **adjust the steps lengths**:
a) Pull out the black bands pairs from the last two windows of third step (spreader), keeping the bands inside the external one.
b) Untie the two simple knots of red main ropes
c) Pull out the two red main ropes from the default band holes
d) Set the steps speed choosing which hole to pass the ropes, considering that the closer the hole at the band tip is, the less the speed of relative step.

NOTICE: Hole selection must be paired in each step bands like shown in following figure. Otherwise symmetry of speedbar will be seriously compromised!



e) Tie a simple knot on ropes (with equal rope remnant beyond the knot (approx 2 cm/1 inch minimum)
f) Insert the bands pairs inside the middle and external windows of third step (spreader)

3) Harness mounting

a) **HOOKS setup**
This is how to setup Finsterwalder SPEED SYSTEM HOOKS:

Troubleshooting

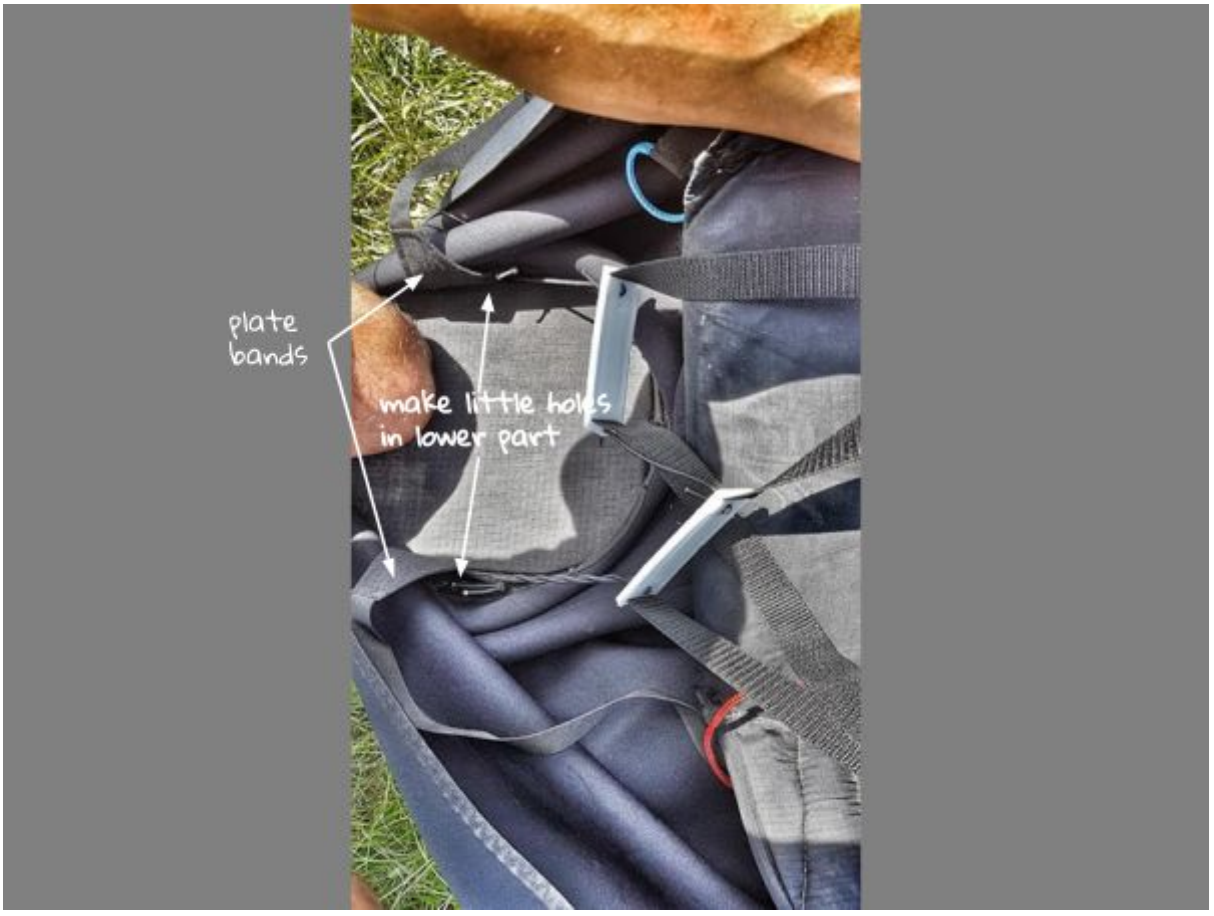
- **My wing turns during action on speedbar.**
Bullet speedbar dynamics are intentionally studied to avoid asymmetry problems

during use. To find a solution, try the following:
a) Always push the steps in line with your legs, down to the bottom on the foot plate.
b) Check main ropes adjustments (spreader simple knots and hook ropes ropes remnant symmetry)
c) Check symmetry of: wing lines, riser's speed system, risers lengths, harness adjustments and bands symmetry.

- **The spreader pushes too much against my legs.**
  Solution: Avoid to pass the main ropes inside the under-seat guiding rings, specially if the rings are close/hardly sewed to seat board (like on some SUPAIR harnesses)

- **I cannot find any loop where to tie elastic ropes of speedbar**
  The side loops on lower part of foot-plate are absolutely necessary for operation of almost all speedbars types. These loops should be present in any harness on market.
  Solutions:

  a) Make two little holes (diameter 3-4 mm, one on each side) on lower part of central bands (like on Ozone Exoceat harness)



  b) Modify the plate making two little holes (diameter 3-4 mm, one on each side) on harness footplate on ⅓ lower part. (Supair Skypper fr harness)

Known harnesses incompatibilities (solvable with minor modifications):
Ozone Exoceat, Supair Skypper fr

- **The second step flips during use**
  Solution: Just shorten the elastic cord between first and second step by making a new knot

- **The Bullet's steps bend after use.**
  This is not a real problem. This behavior does not affect Bullet correct operation.

- **The middle elastic rope (between 1st and 2nd step) got out from the hole on 1st step.**
  Solution: try following knot instead of fabric simple knot: