

Needed for the GeRo construction kit:

Mechanical parts

1. Robot Sceleton
2. Plastic part for Raspberry fixation
3. 4x Servo extension cable short 15cm
4. 2x Servo extension cable long 30cm

Electronics

5. Raspberry Pi
6. Speaker
7. Camera
8. WLAN stick
9. USB sound card
10. PCB for servo connection and power supply
11. Battery
12. Battery Charger

Design

13. Fore and Back head
14. Chest
15. 1.5mm blue (or other color) plastic filament
16. 3mm blue (or other color) plastic filament

Tools

17. Glue
18. Cable fixation

Build Manual for the Skeleton

Note: The head of the screws might look different. Important is to use right length.

If „right“ or „left“ is written, it is from the perspective of the robot.

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- 1 Stomach
- 2 Servo Bracket
- 3.1 Long U
- 3.2 Short U
- 4 45° U
- 5 90° Bracket
- 6 Feet
- 7 Straight Bracket

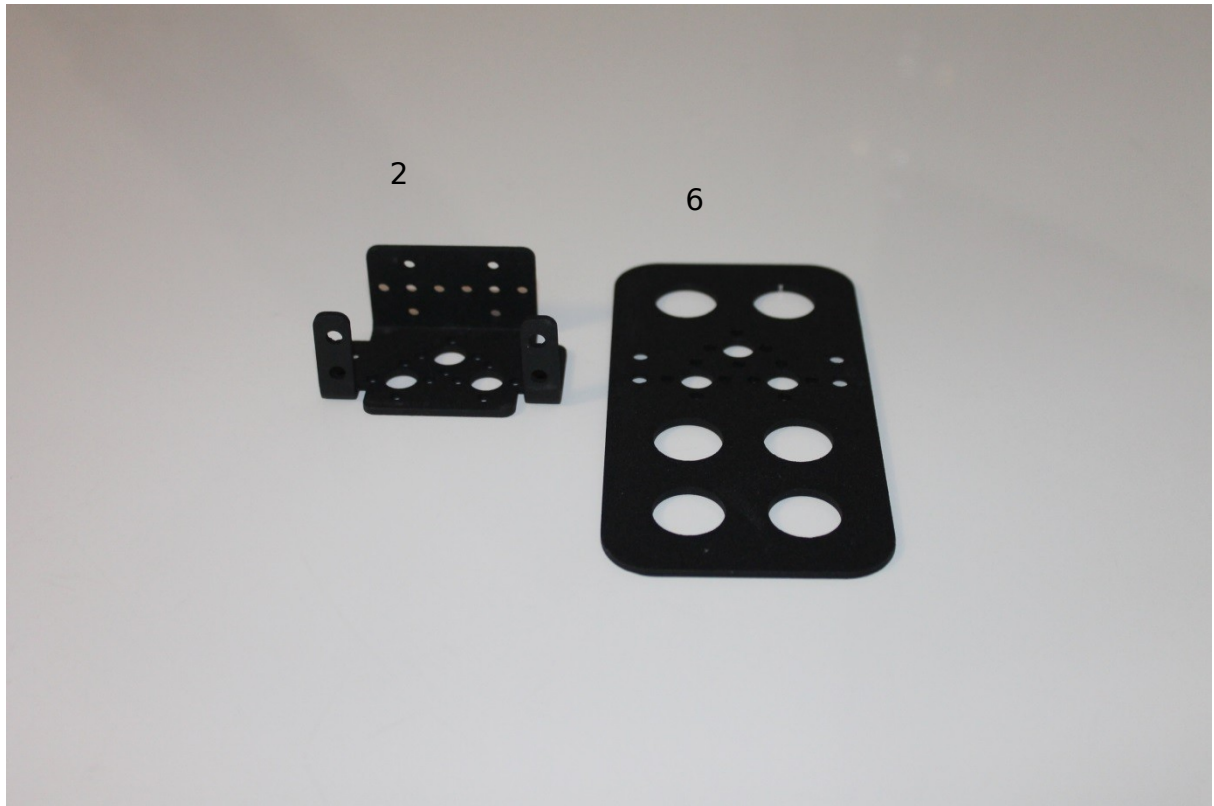


- 8 Screw 4mm
- 9 Screw 3mm short
- 10 Screw 3mm long
- 11 Screw 3mm short (special head)
- 12 Nut 4mm
- 13 Nut 3mm
- 14 Servo Horns
- 15 Ball Bearings

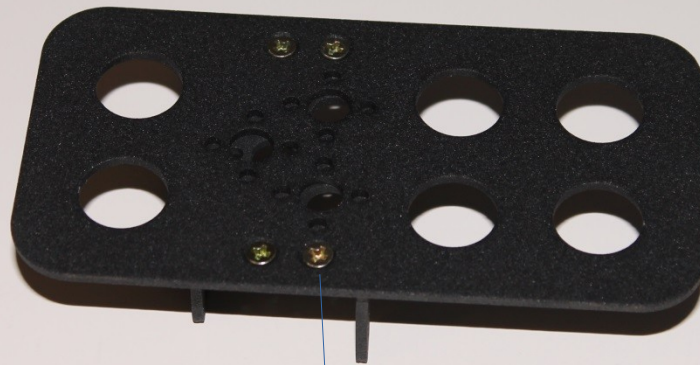
Complete Robot Sceleton:



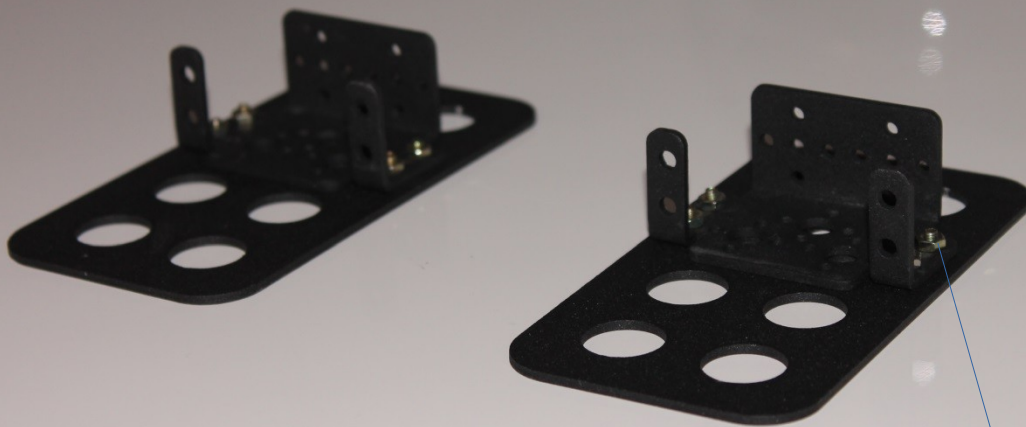
1. Left and Right Foot



4x11
4x13

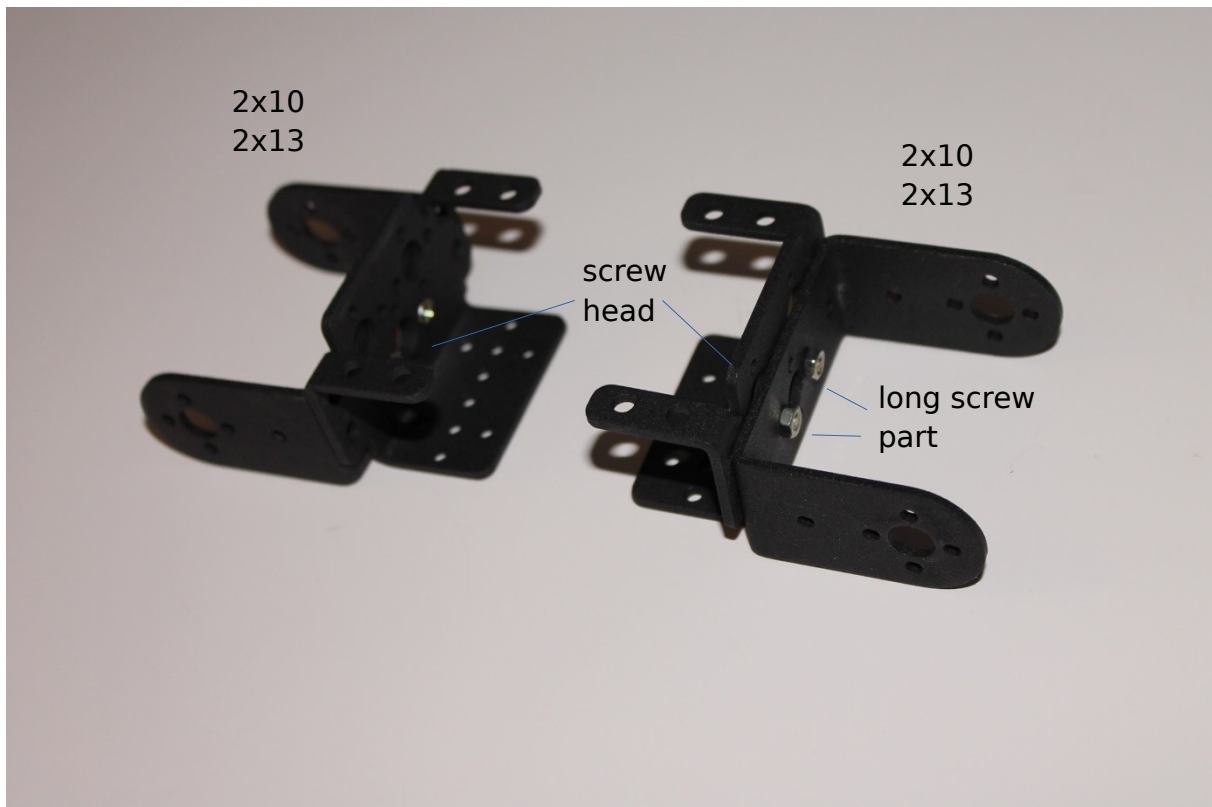
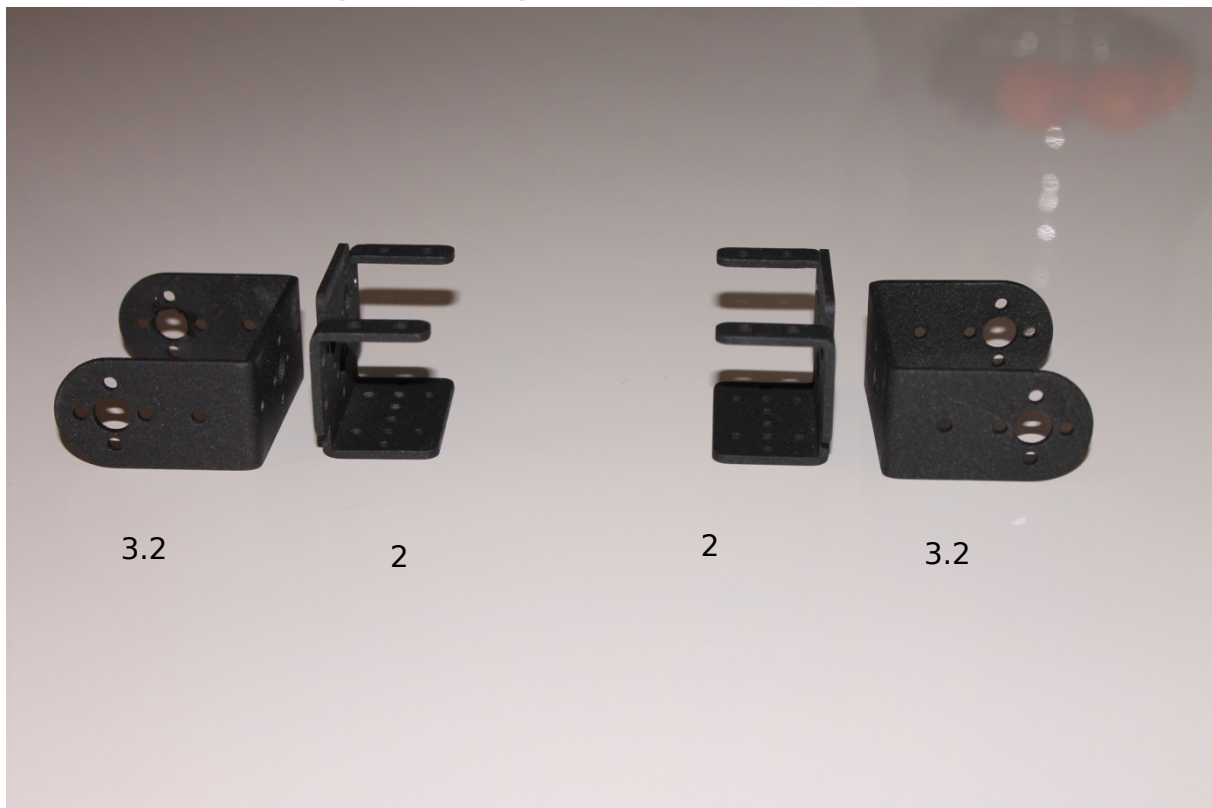


Screw Head



Screw Nut

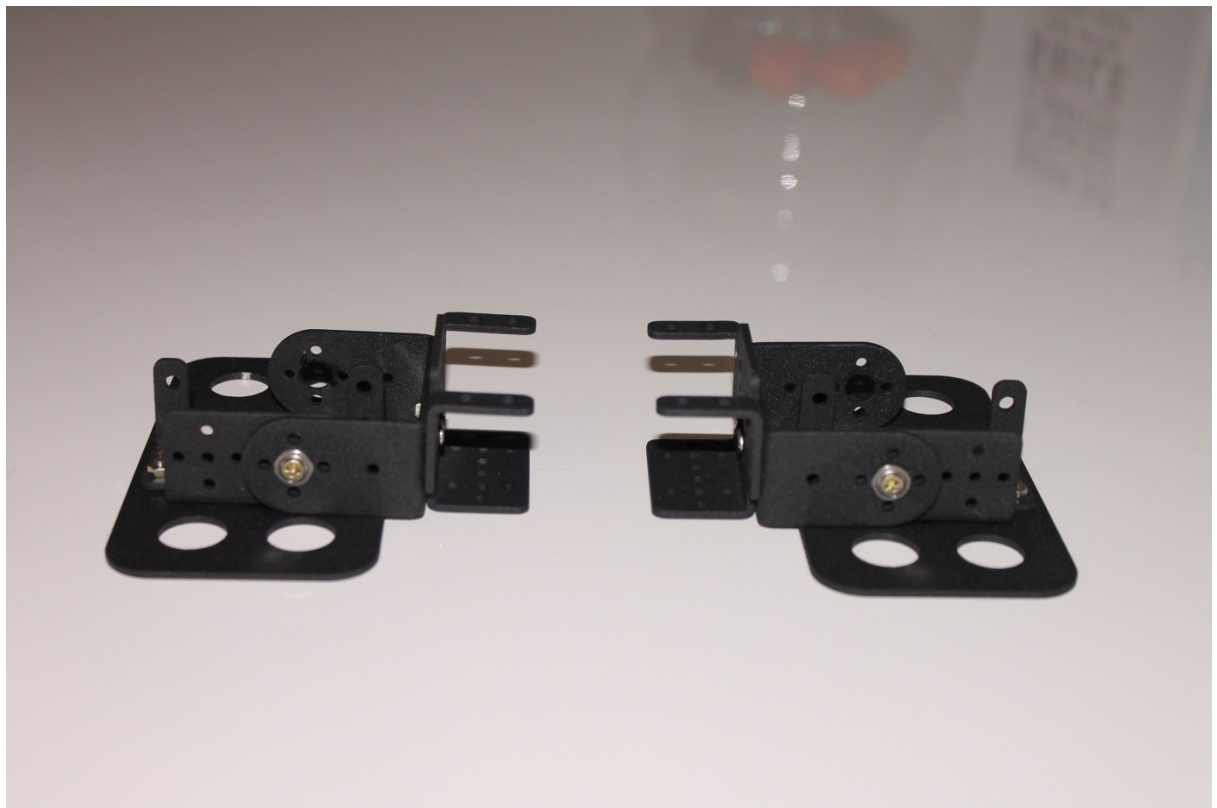
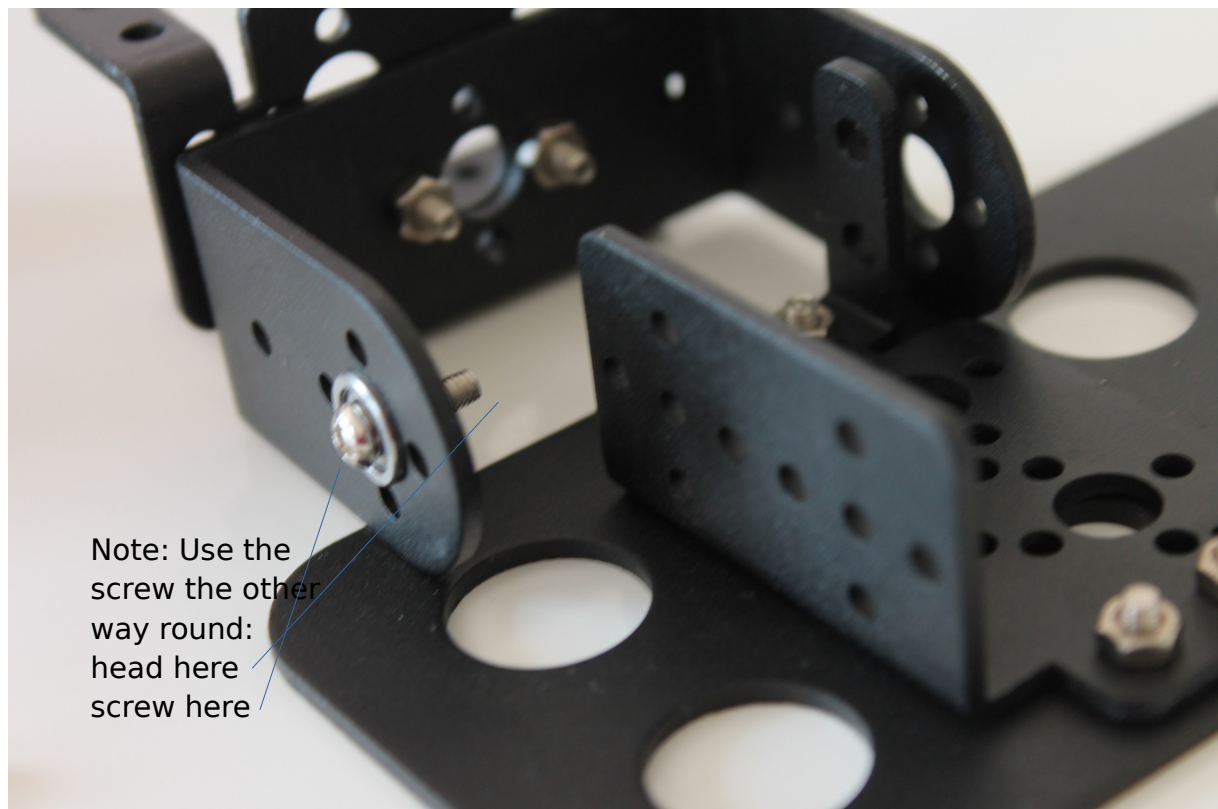
2. Left and Right Foot joint



3. Feet + Feet joint

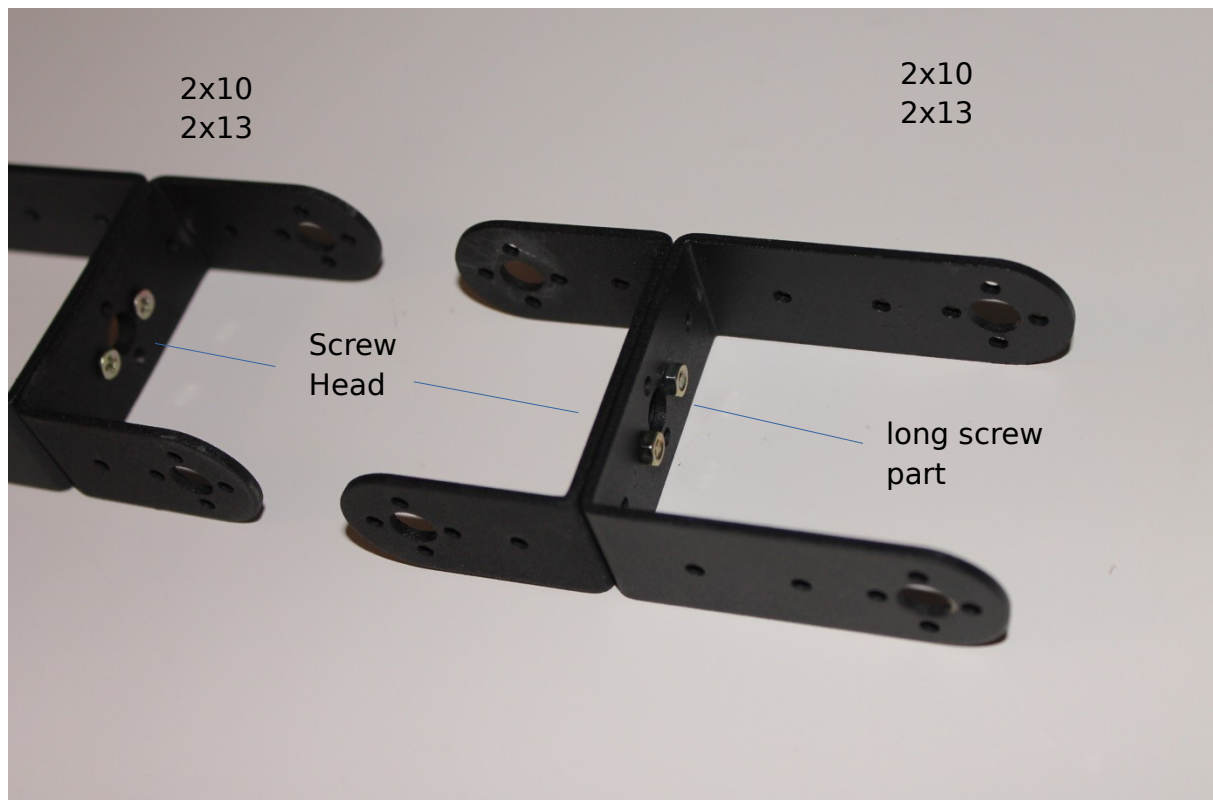
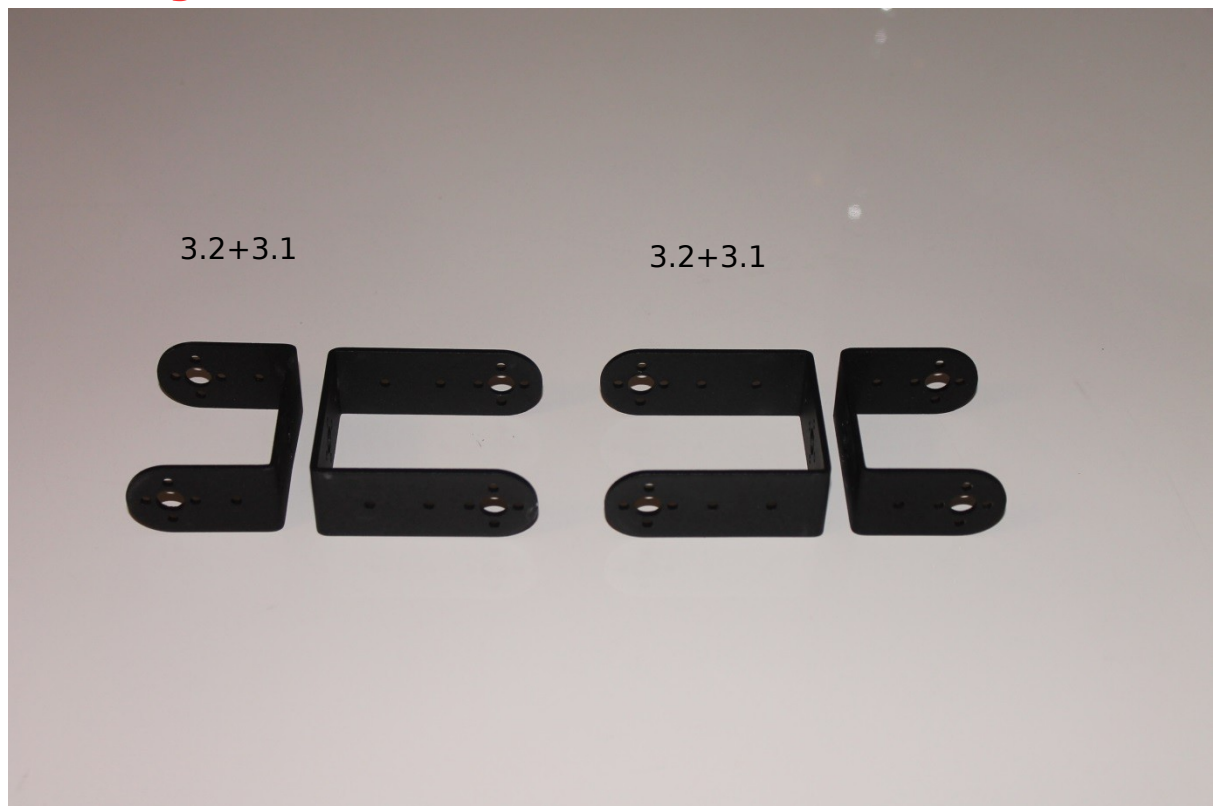
Note: Now the feet are shown from the back (turned by 180° compared to first feet picture)





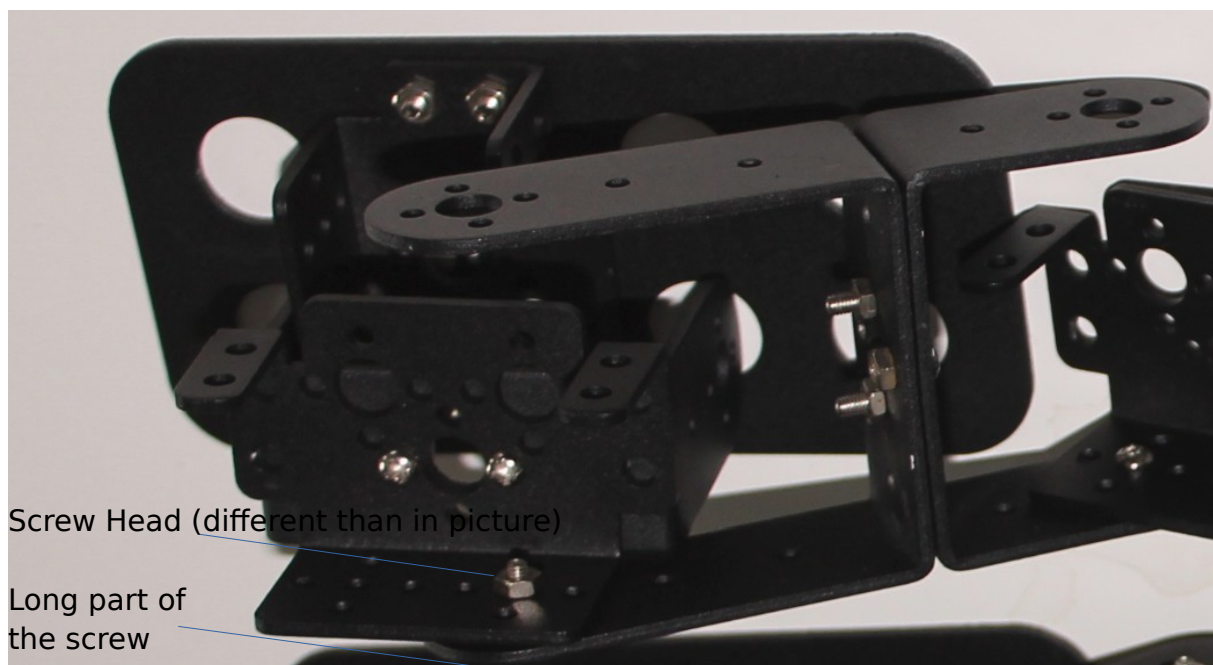
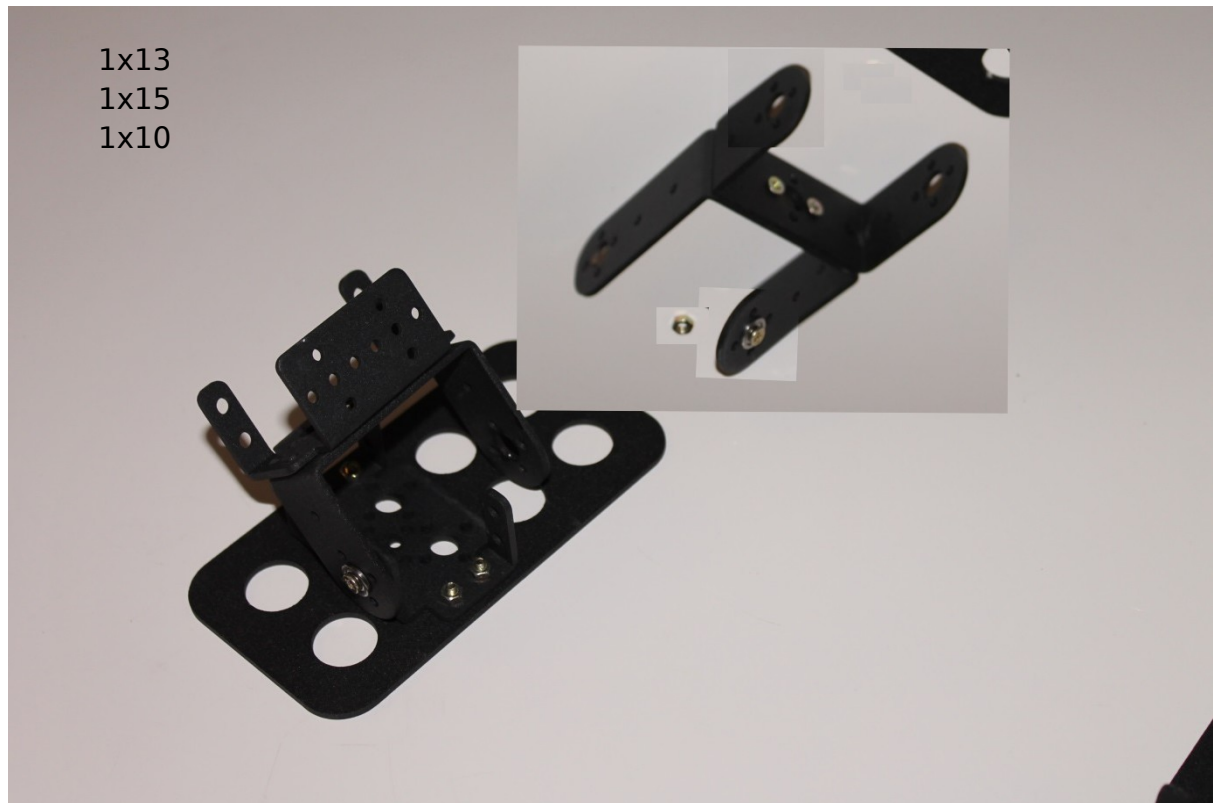
Tighten the nuts.

4. Knees (Achtung: andersrum! langes U nach oben, kurzes U am Fuss befestigen! Sonst kein Aufstehen möglich!)

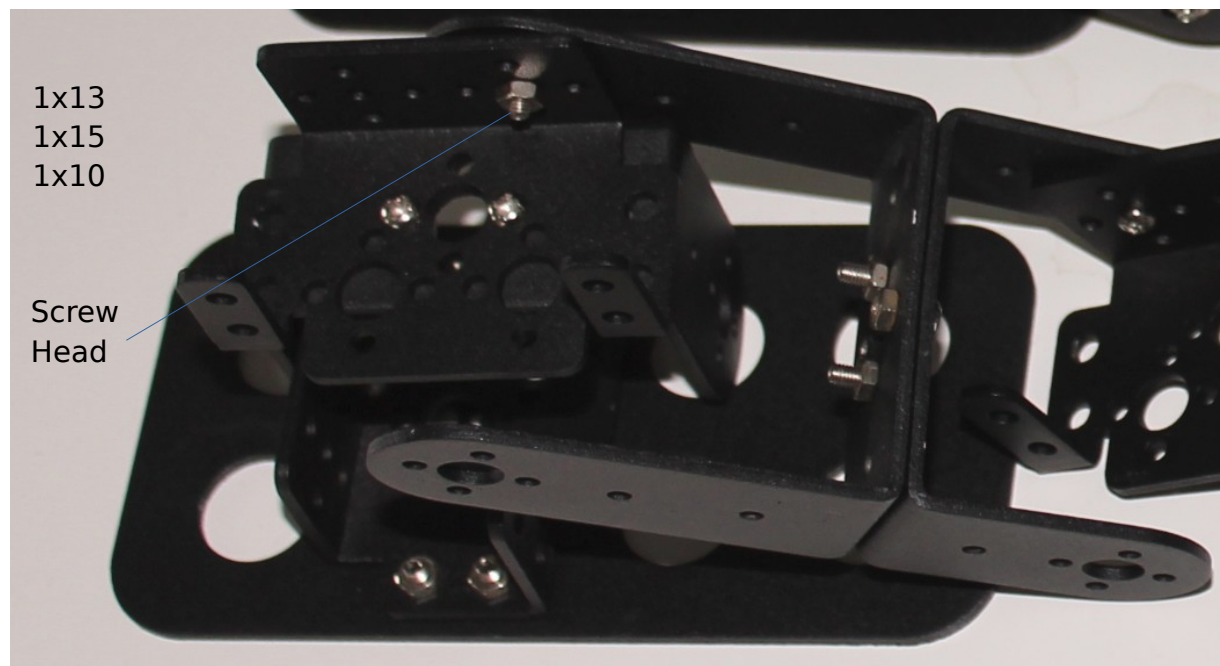


5. Feet + Knee

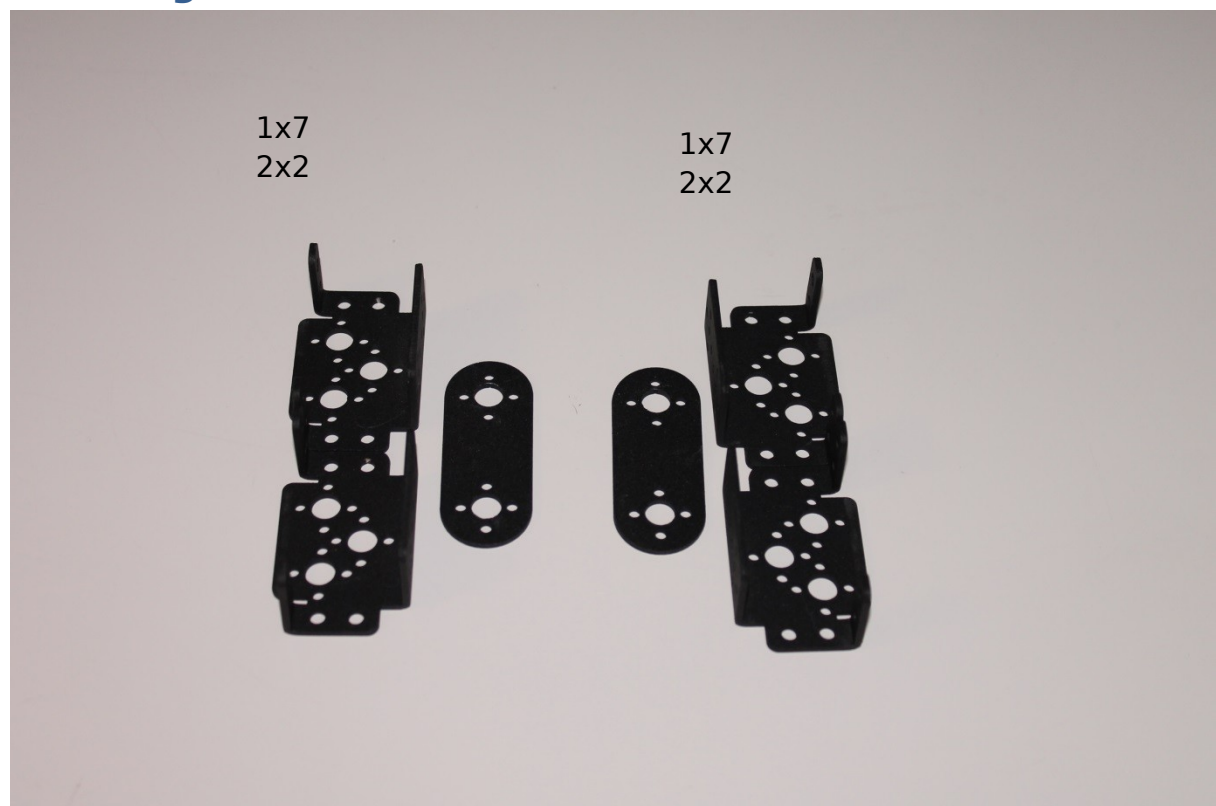
Left Knee:

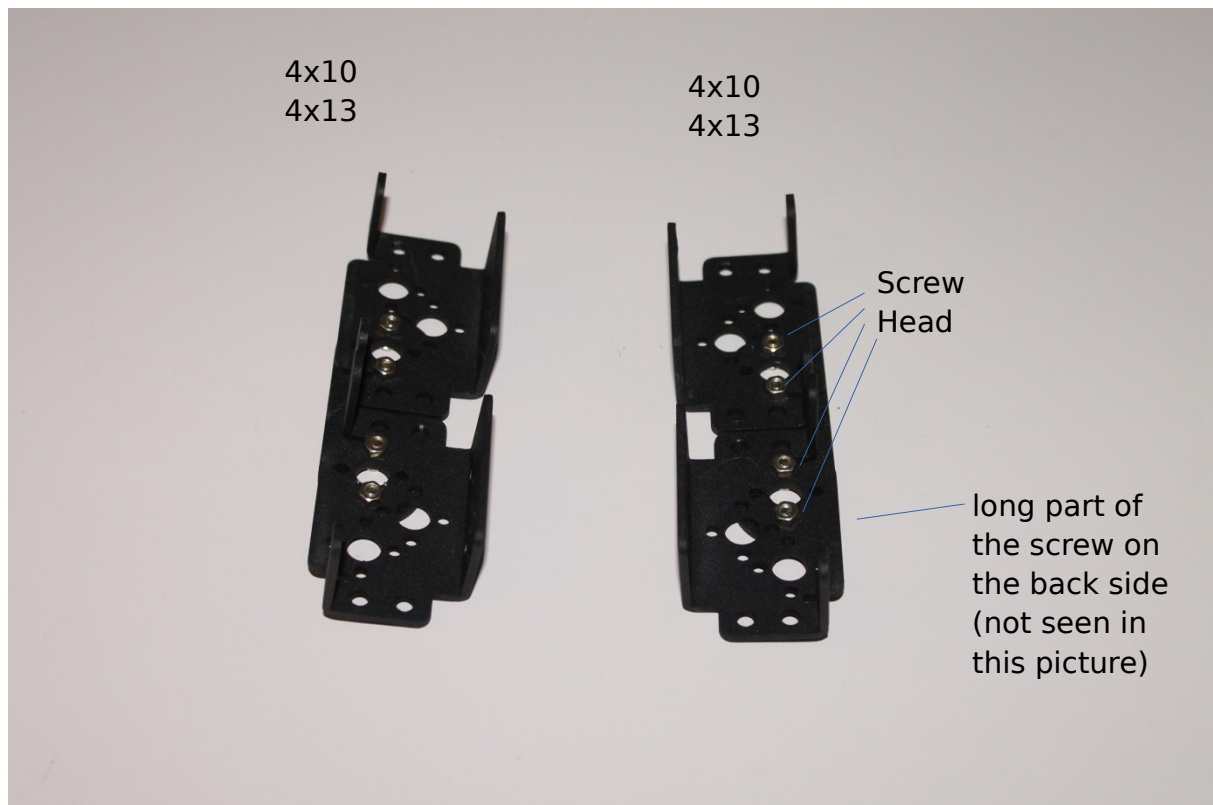


Right Knee:

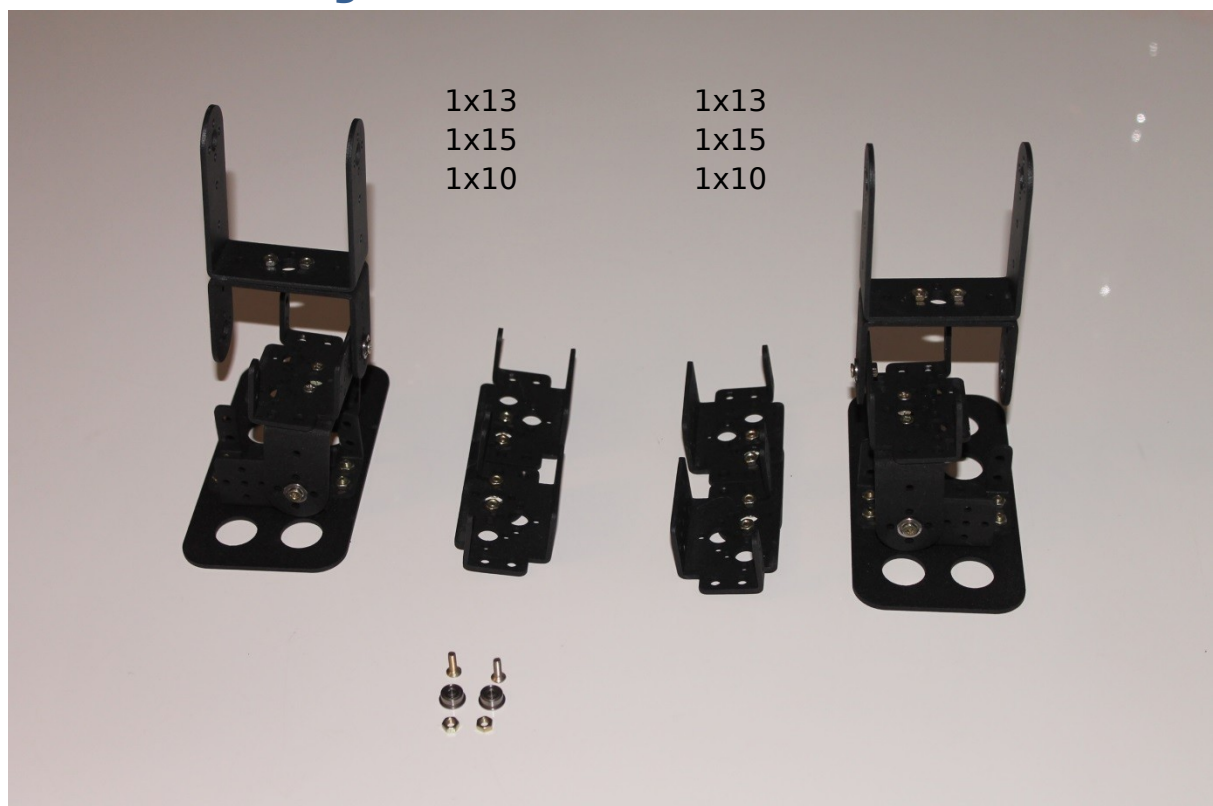


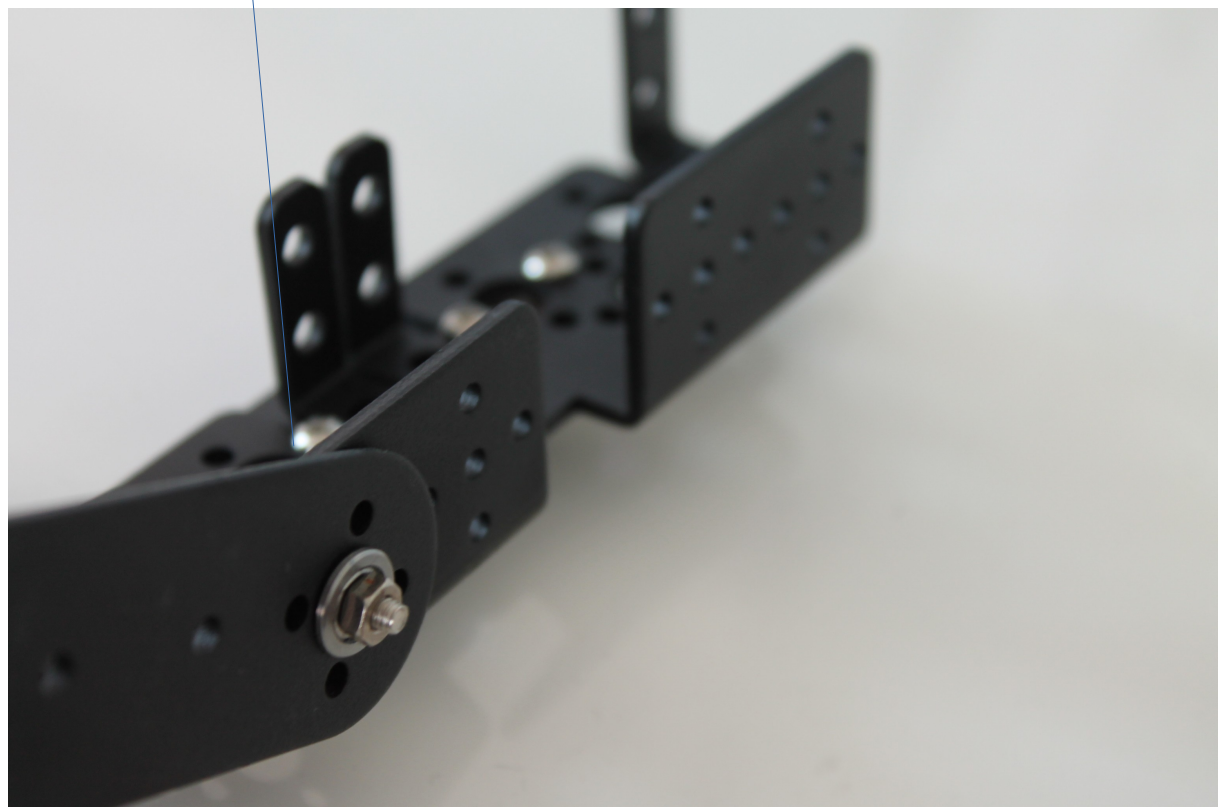
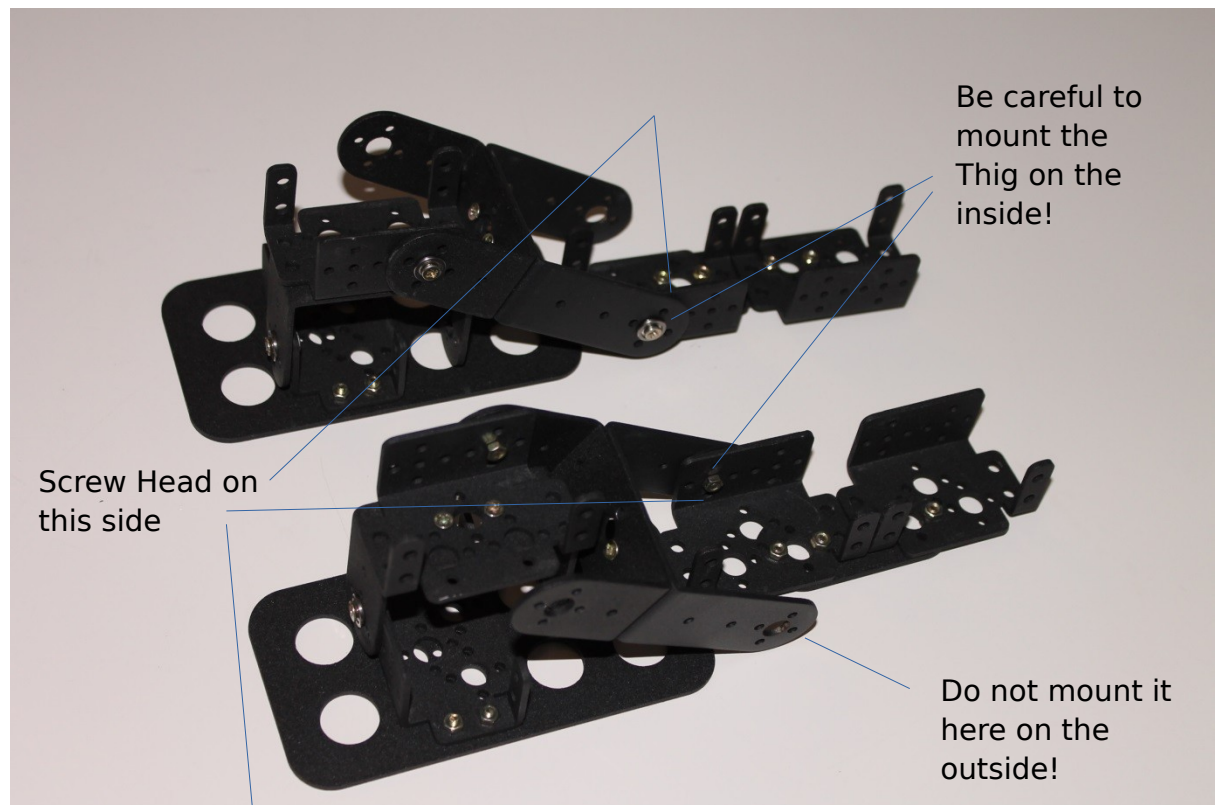
6. Thig





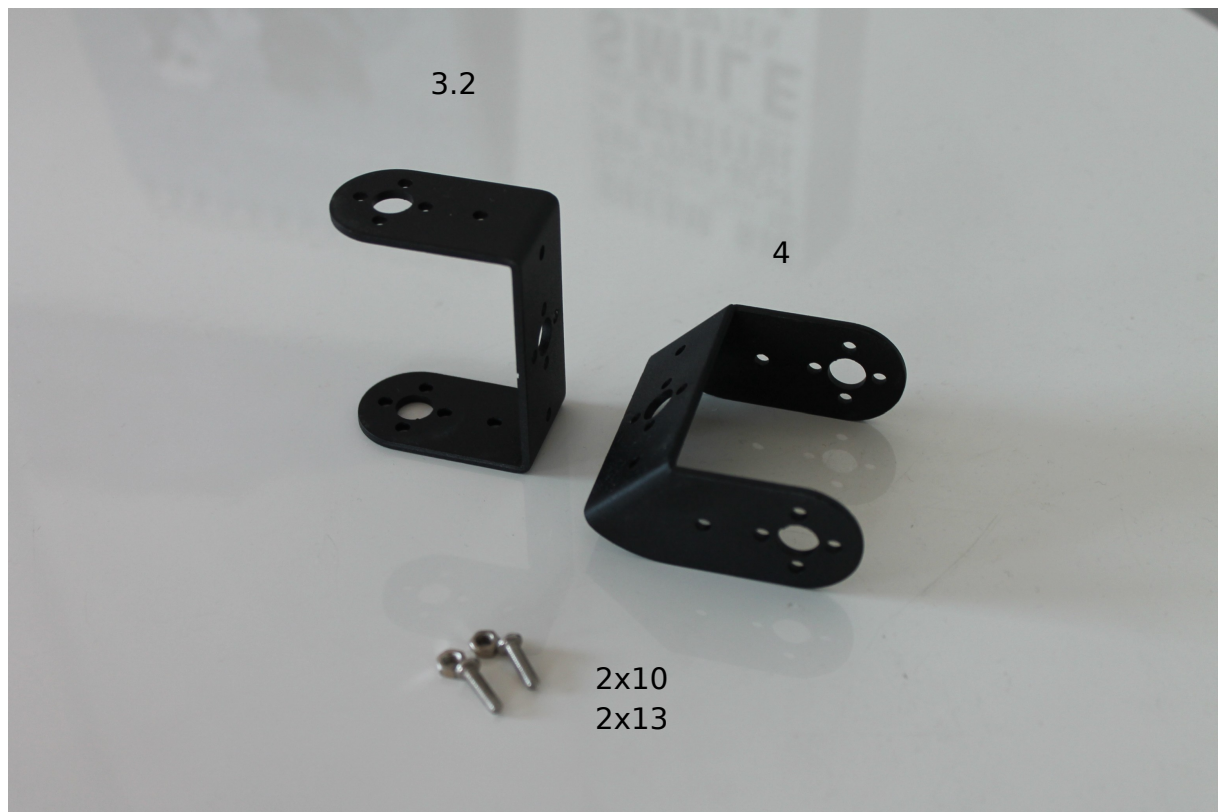
7. Knee + Thig



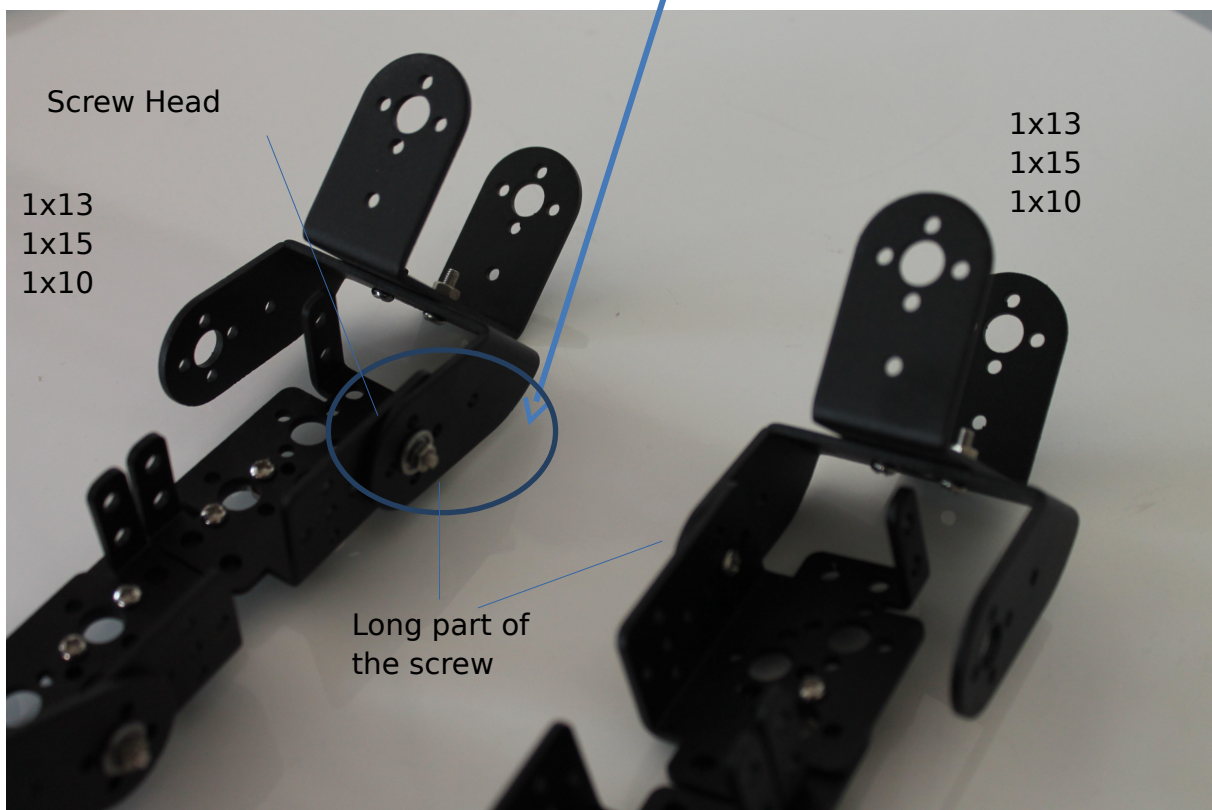
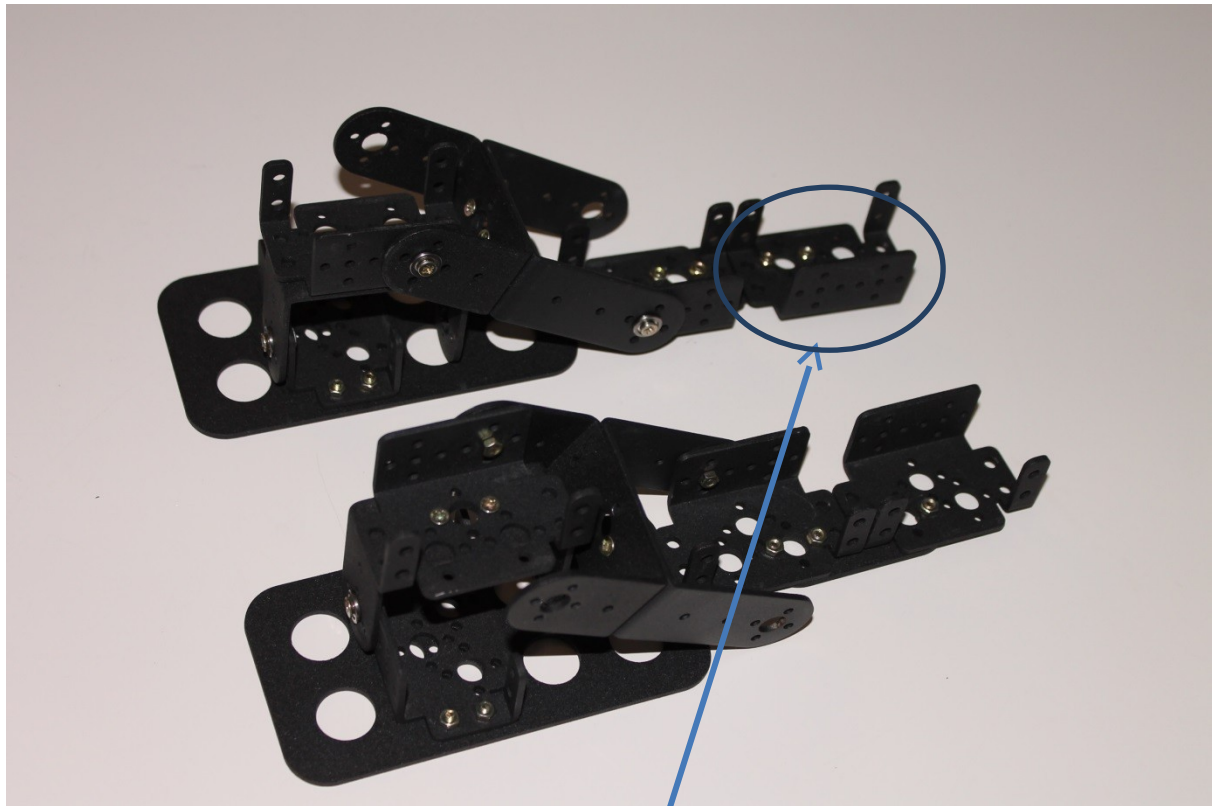


8. Hip

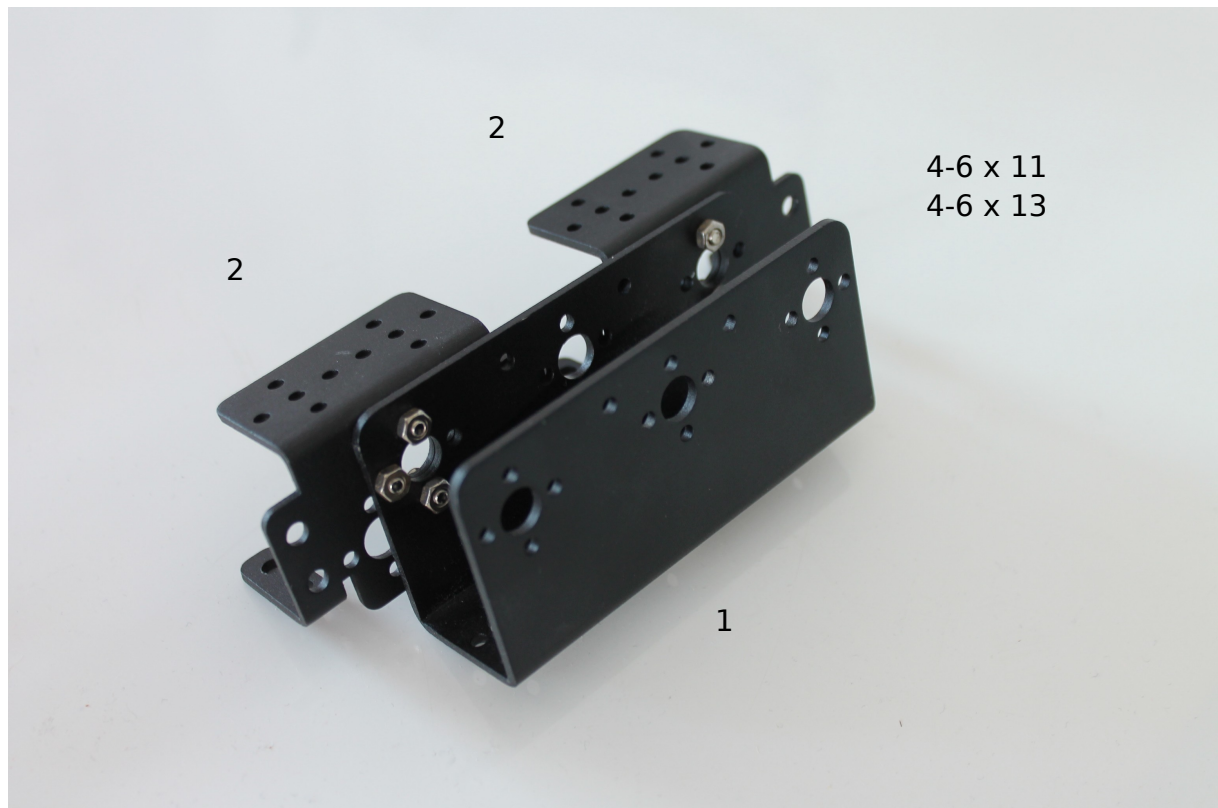
Build it two times:



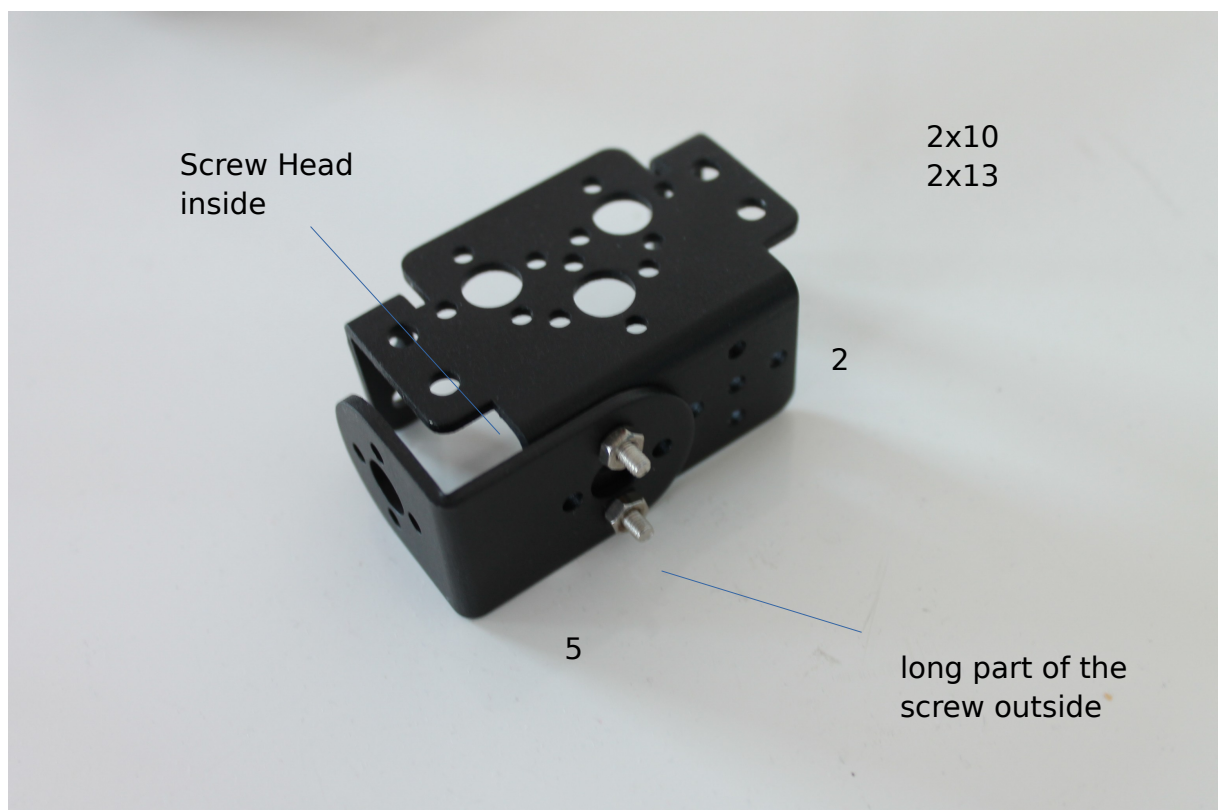
9. Thig + Hip

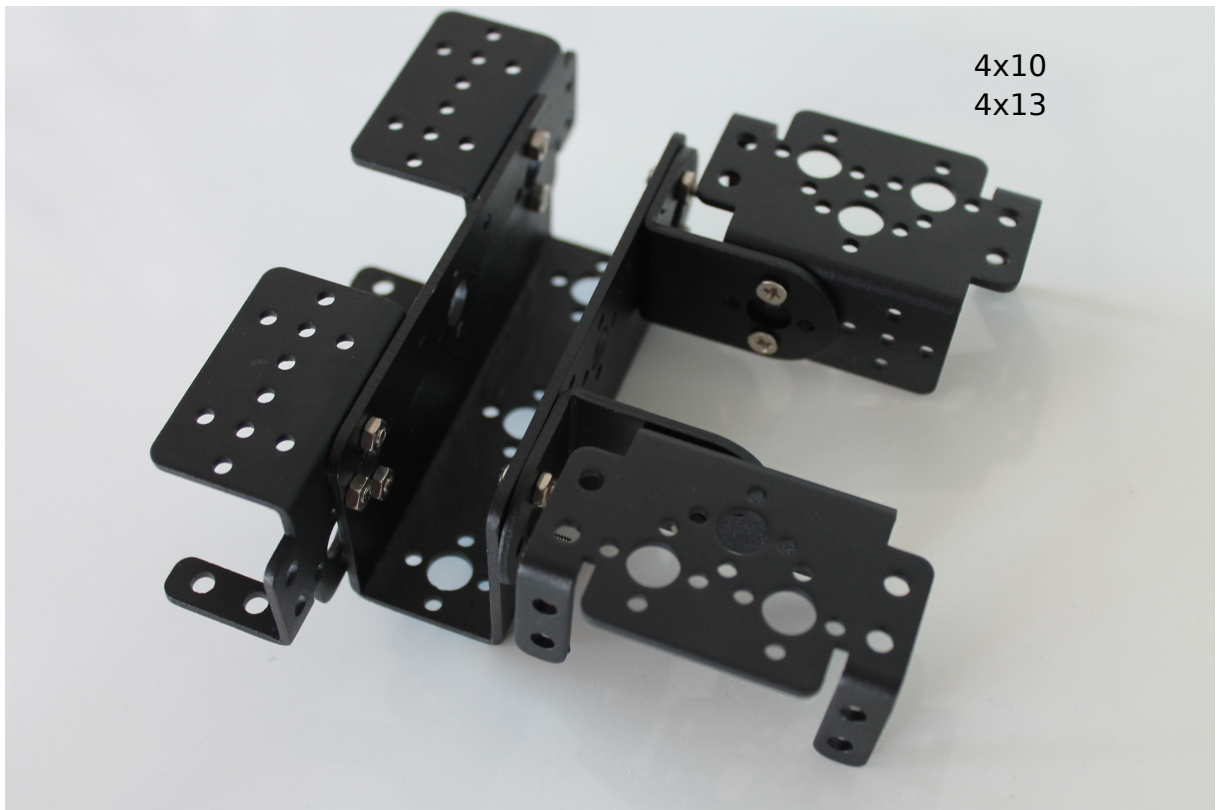
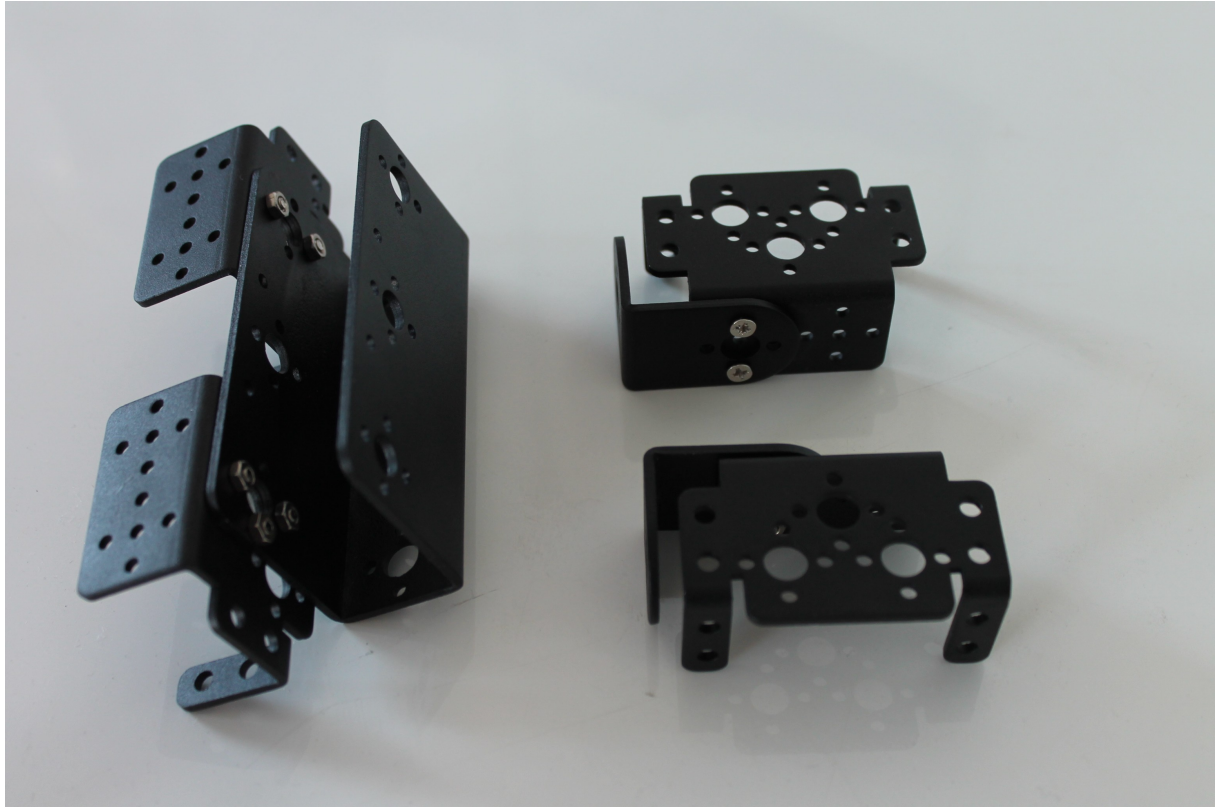


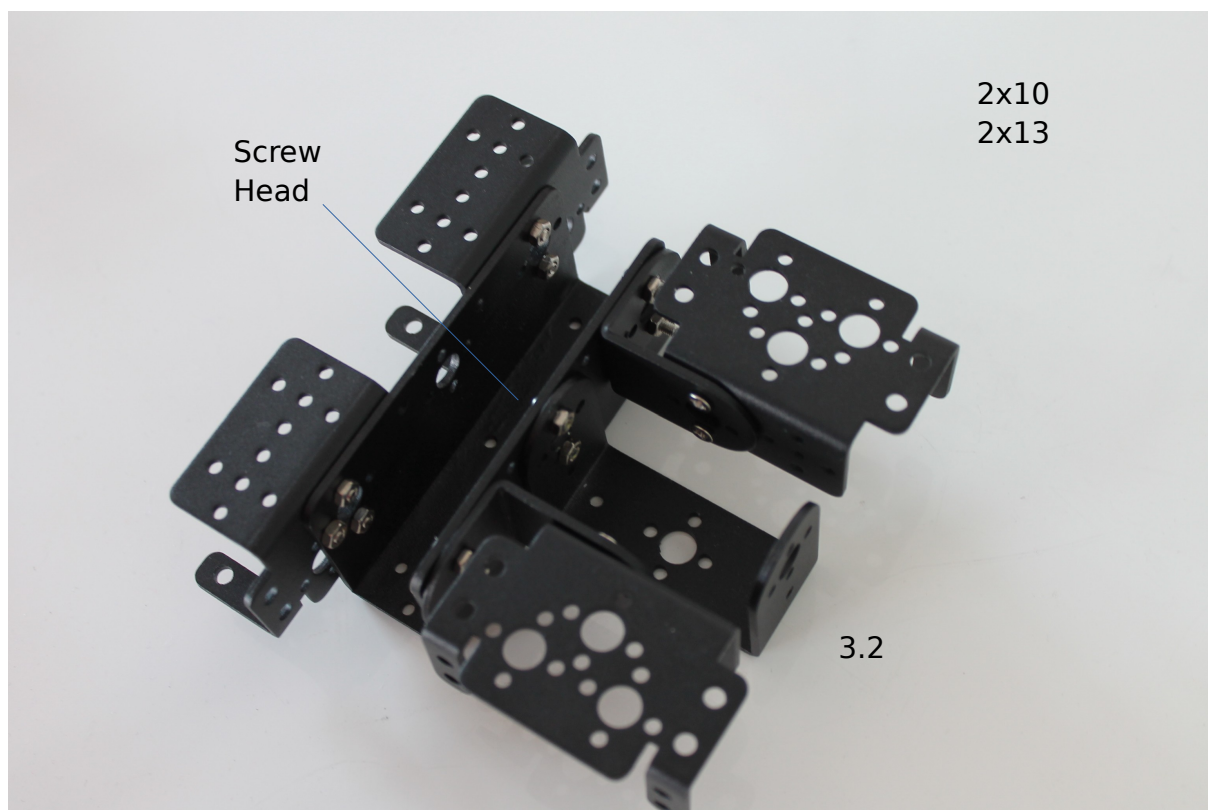
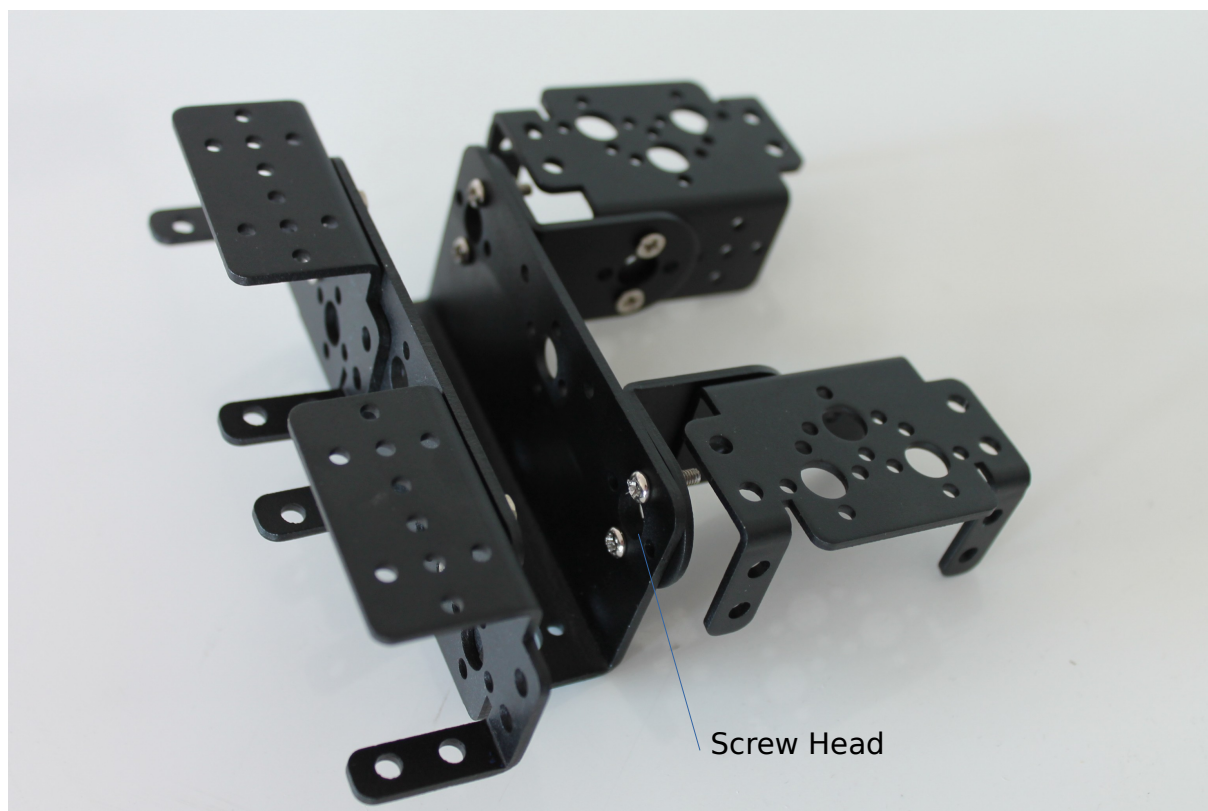
10. Stomach



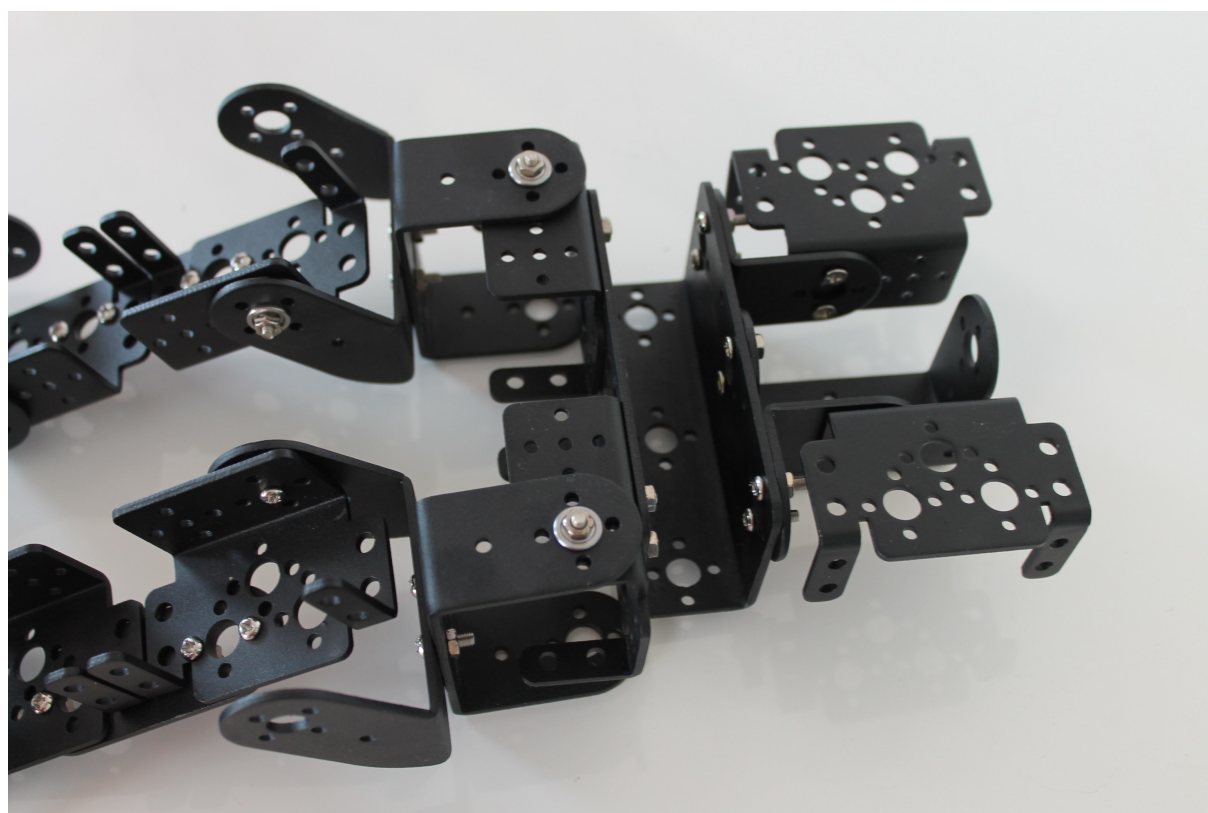
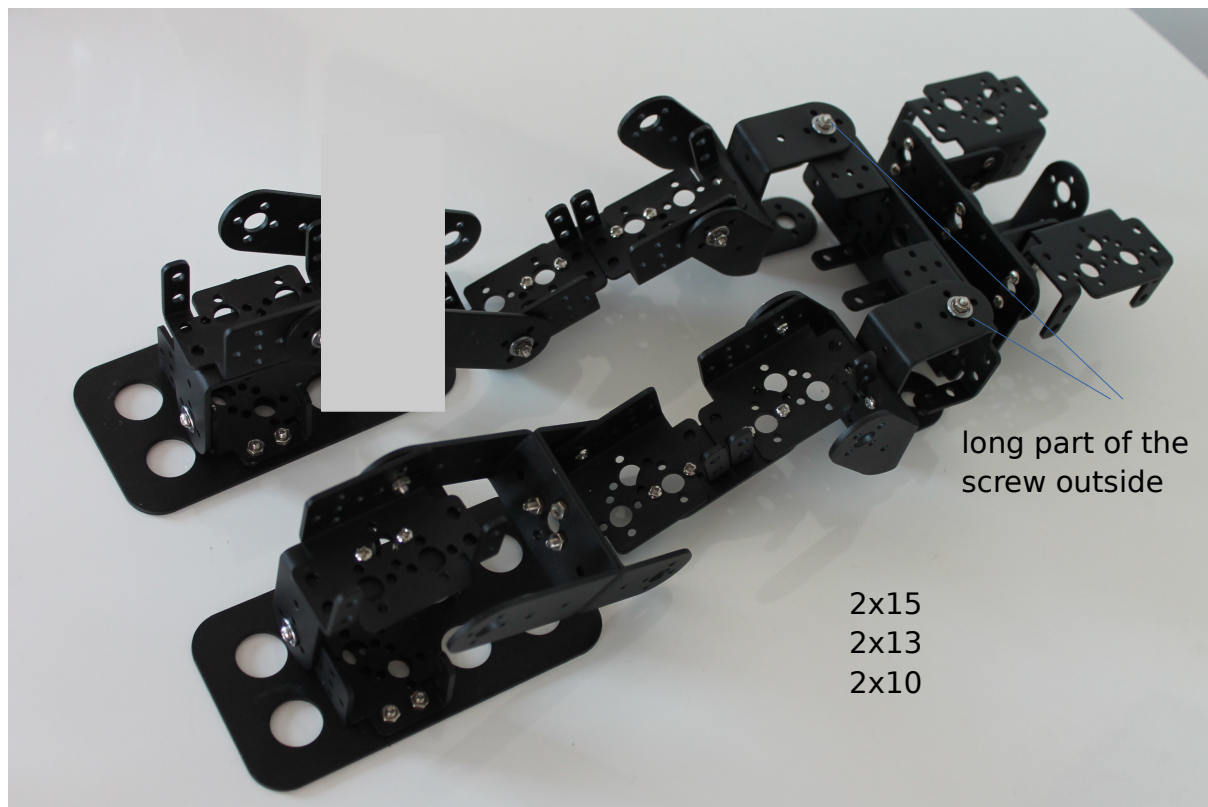
Build following part 2x:





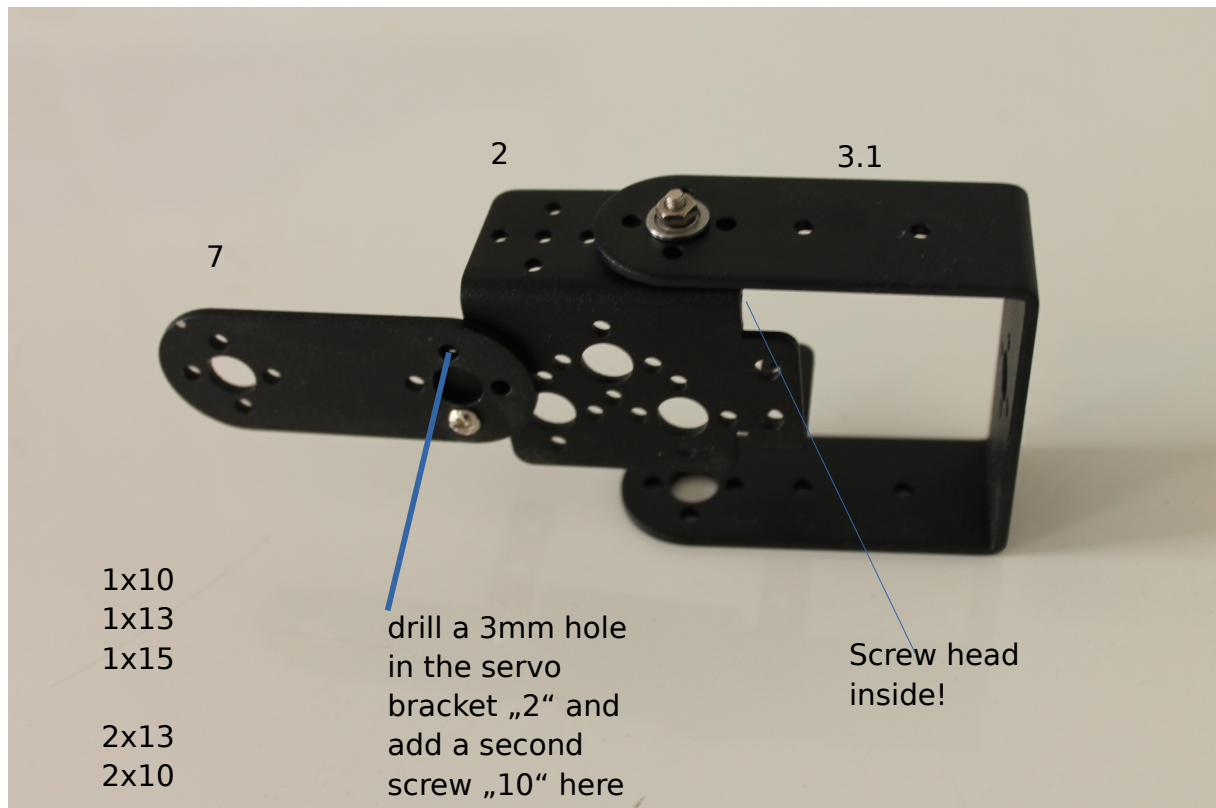


Screw Head on other side

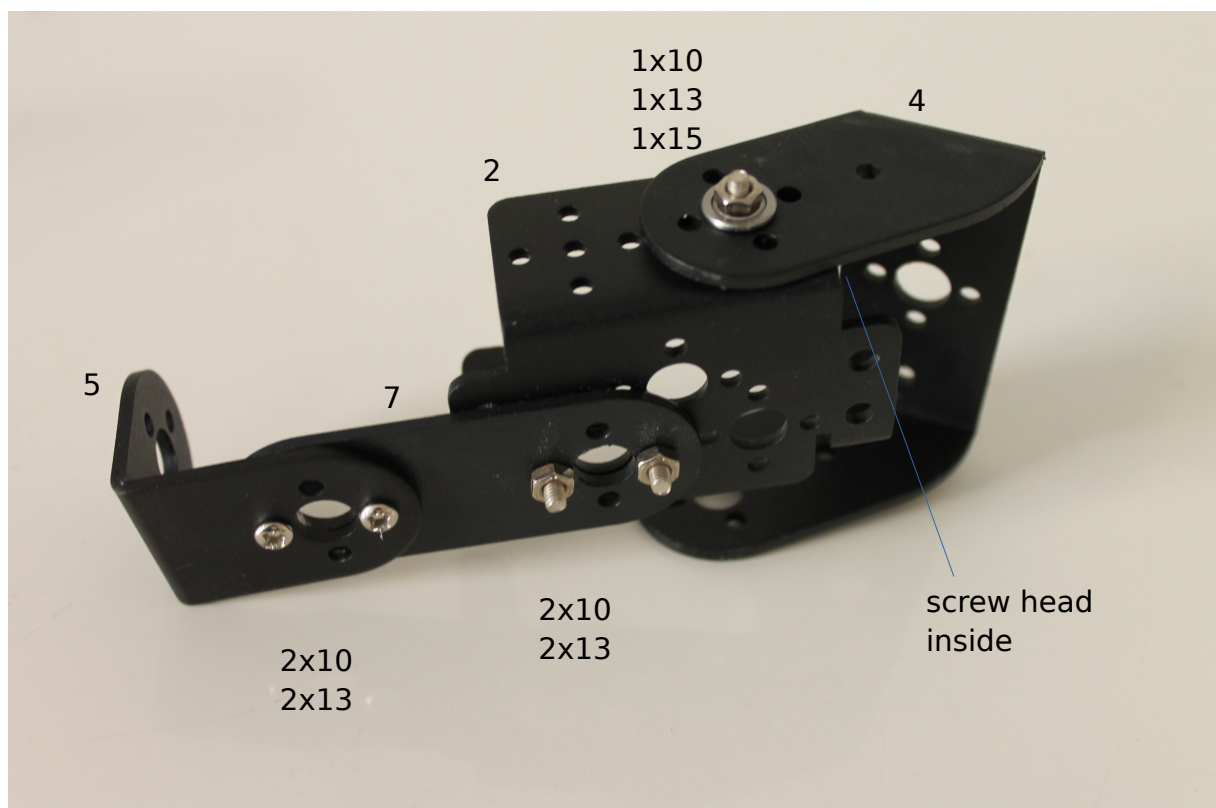


11. Arms

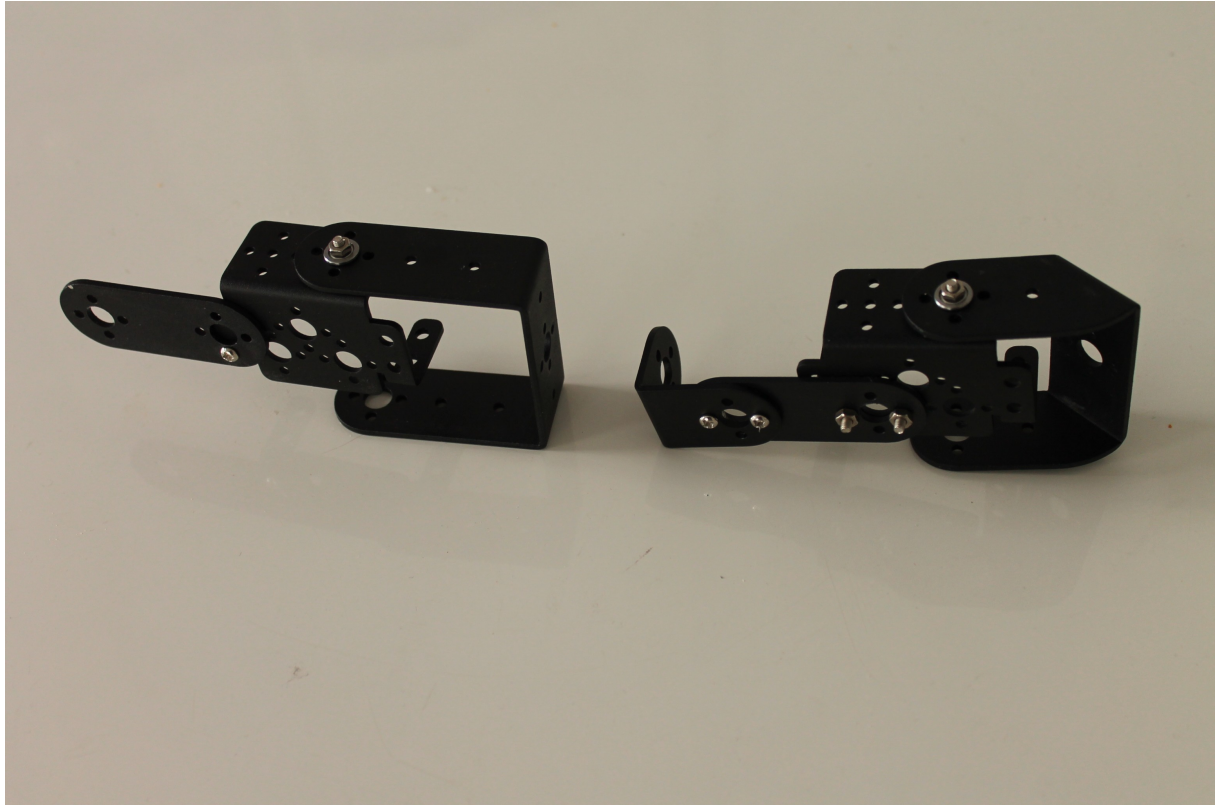
lower left arm



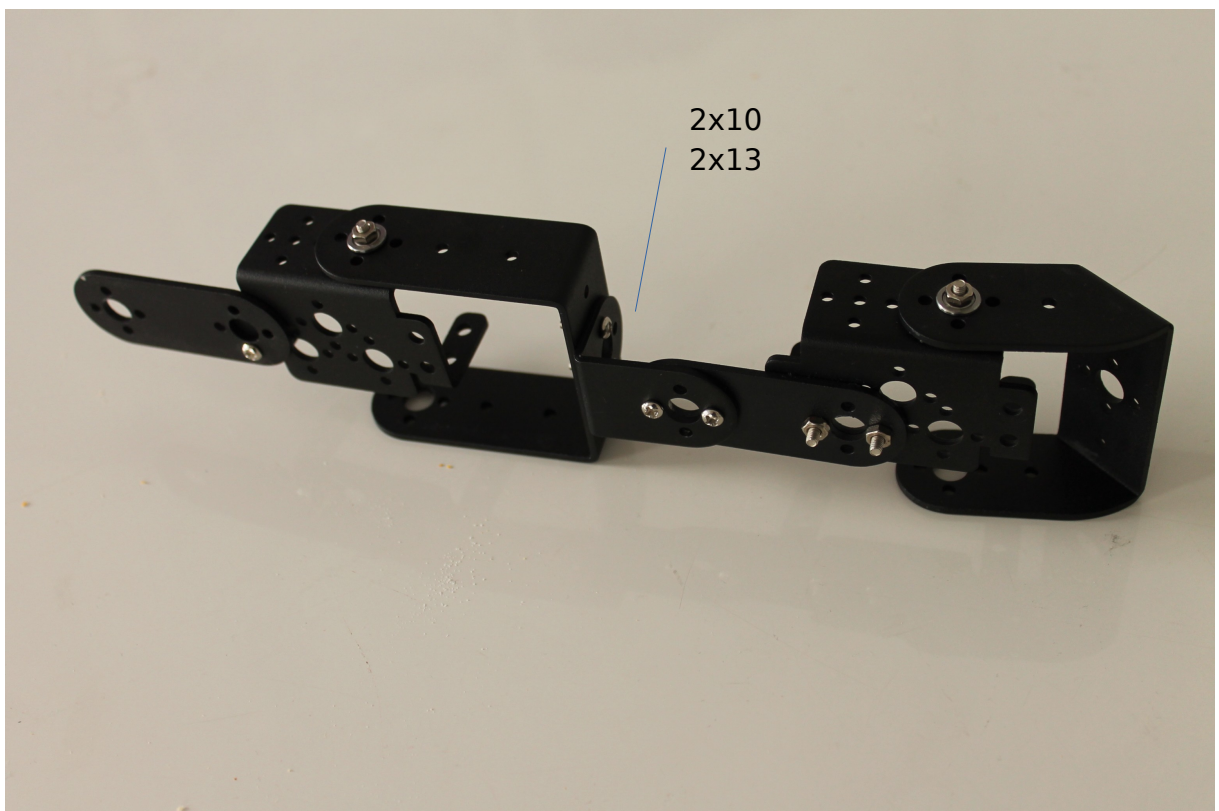
Upper left arm



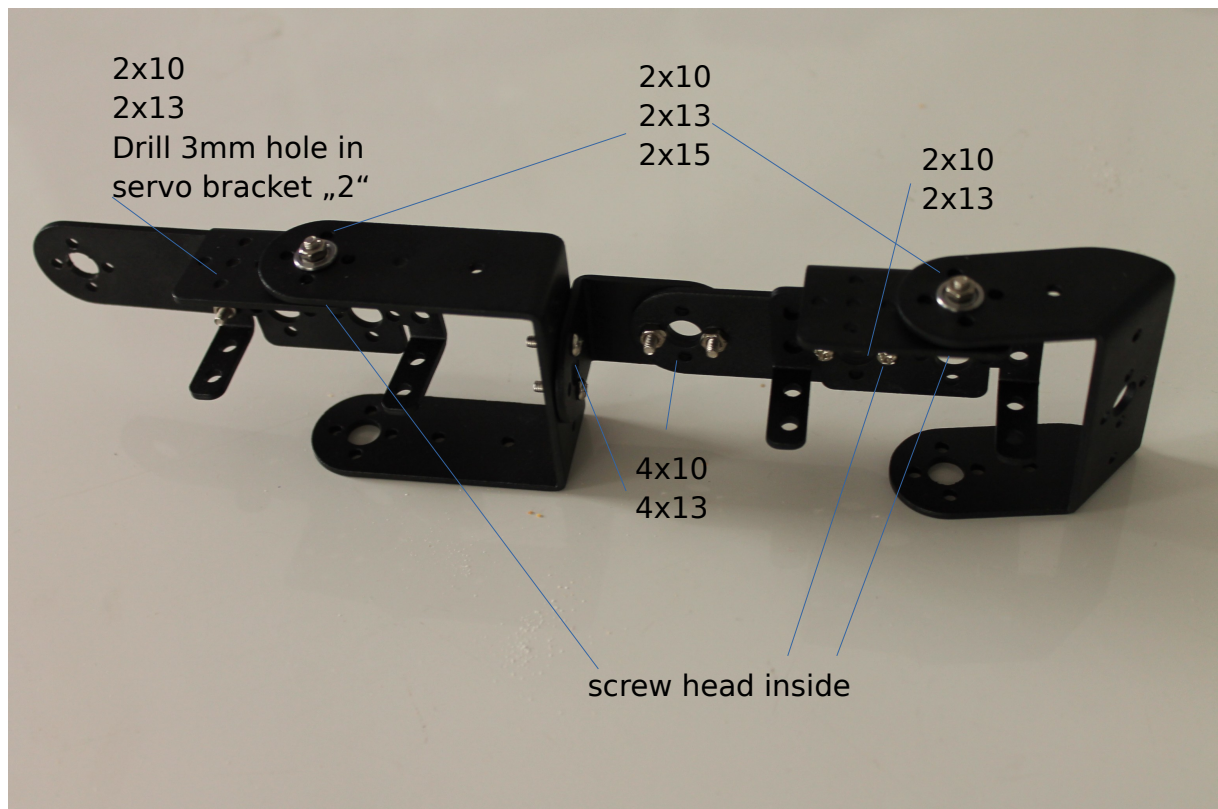
describe the hole: Where to thrill



left arm:



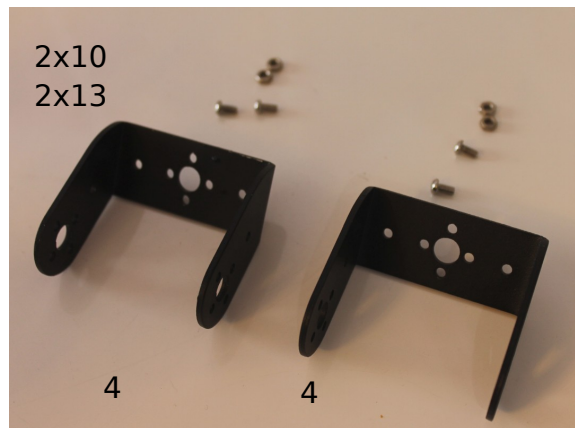
right arm:



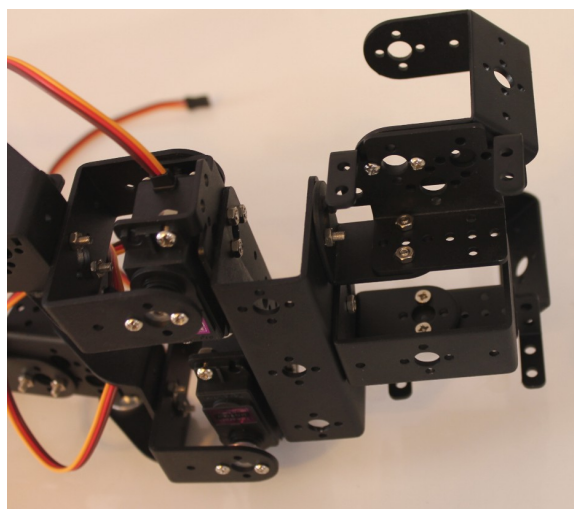
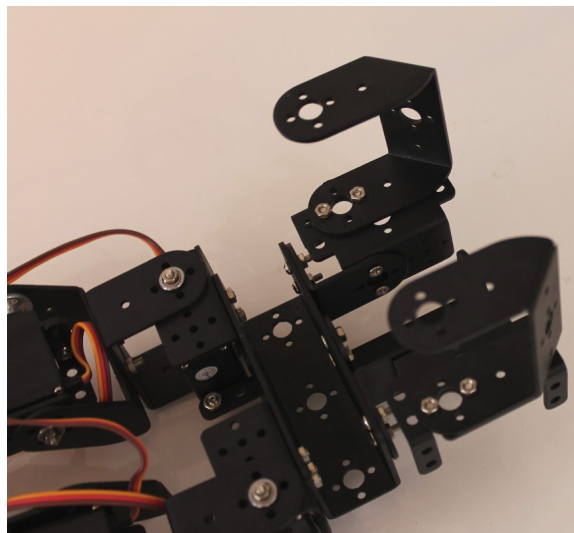
Complete Robot Sceleton:



12. Back Protection



Fix the screws as shown in the pictures below (back and front view):



Side view with servos included:

