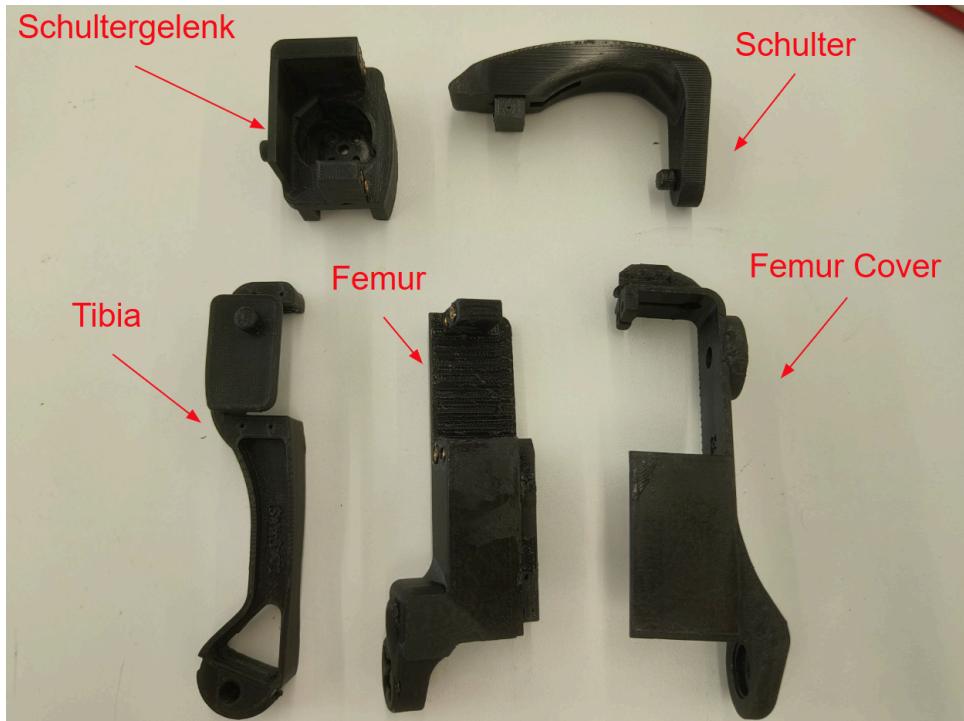


# Assembly of the 4 Legs

Note: Before assembly, all servomotors must be set to the neutral position (0 position). A servo Homer or an Arduino script can help with this

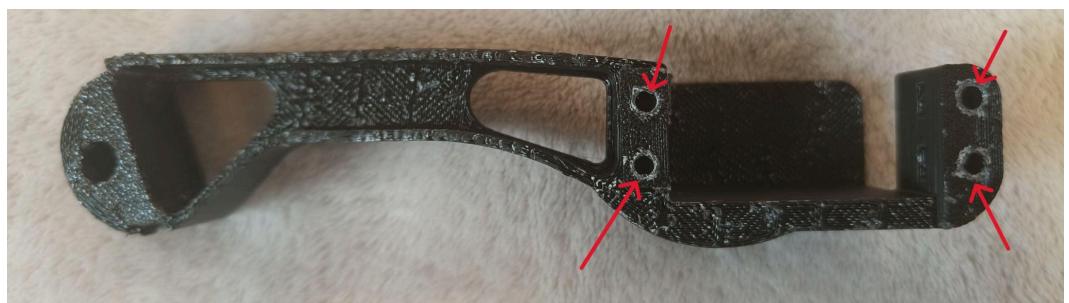
## Overview of the components:

A leg consists of the following 5 components.



### 1. Tibia

- Print all parts for the leg and remove the support structures.
- If necessary, enlarge drill holes with a soldering iron if support structures cannot be removed.



- c. Insert the servo motor and secure it with four M2 screws.



- d. Attach anti-slip studs to the foot.



Tip: If a hole for a screw does not fit, you can use threaded inserts, which can be easily melted into the part using a hot soldering iron.

## 2. Femur

- a. Insert the servo motor and secure it with the lower two screws



- b. Insert the servo horn (a hammer can help here) and secure it with four M2 screws.



- c. Insert the gear of the tibia servo into the femur servo horn so that both parts are aligned as closely as possible. Then screw in the middle screw of the servo horn to connect the tibia and femur.



- d. Now insert the ball bearing into the second femur part (femur cover). You can use a rubber hammer (carefully!) to tap the ball bearing into its seat.



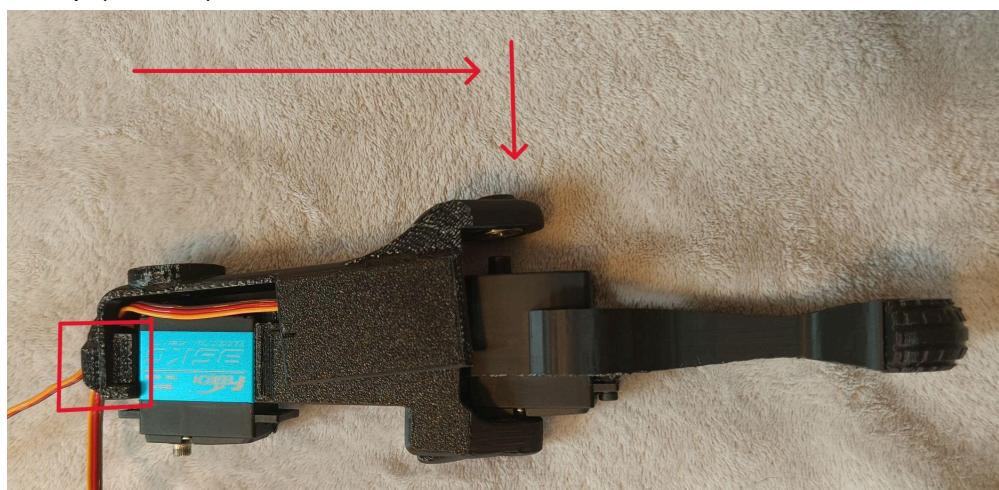
- e. Make sure that in the following steps the cable of the tibia servo is aligned in the femur cable channel.



- f. Guide both cables through the upper cable channel of the femur cover. A small screwdriver helps with this.



- g. Now pull the femur cover to the right and down as shown in the picture. The pin should snap into the ball bearing. On top, make sure that the screw holes line up (red box).



- h. The two parts should now be snapped together. To secure the connection, an M2 screw can now be inserted at the marked location.



- i. Now screw in the two remaining M2 screws of the femur servo.



- j. Insert the ball bearing into the opposite side of the femur.



### 3. Schulter

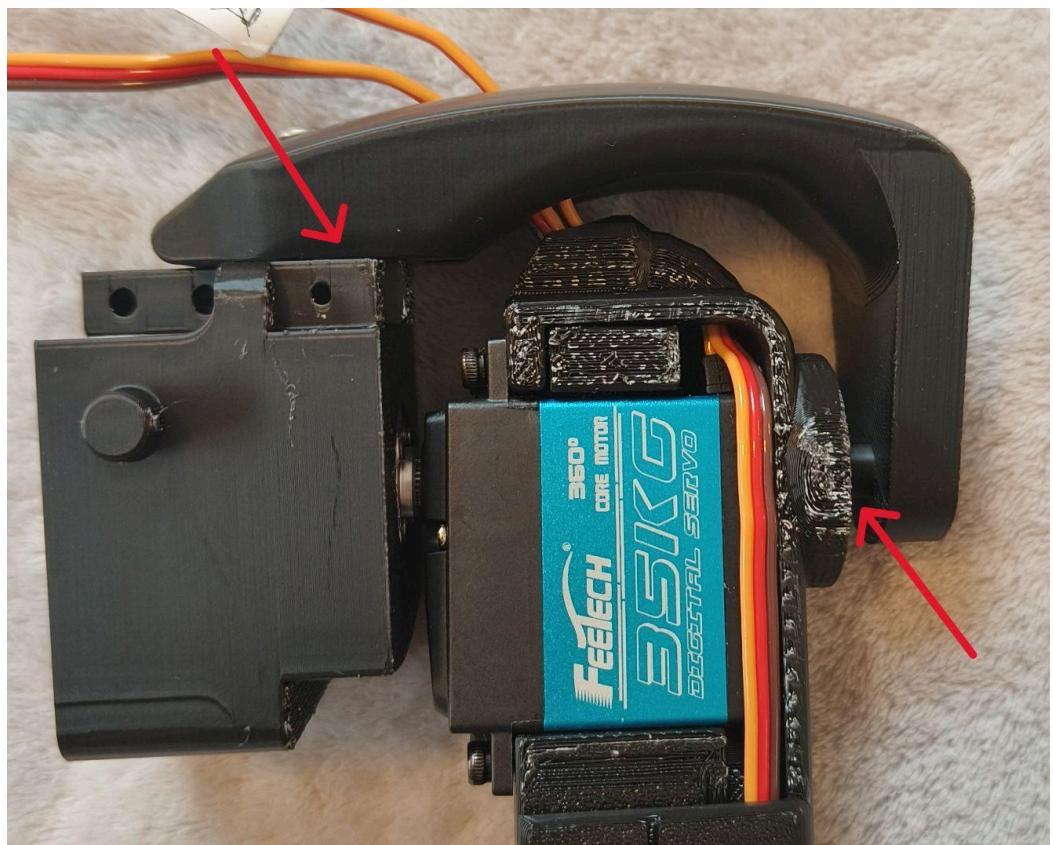
- a. Screw the servo horn into the shoulder (M2 screws) at the marked positions



- b. Now insert the gear of the femur servo into the shoulder so that it forms as close to a  $90^\circ$  angle as possible. Then screw in the M2 locking screw at the marked position.



- c. In the next step, the shoulder is inserted. The pin should fit well at the marked positions.



- d. To secure it, a self-tapping screw is now screwed in from above. The cables should be guided through the cable slot.



- e. Now insert the shoulder servo and fix it with four M2 screws.



- f. Done! Now repeat the process with the remaining legs.