

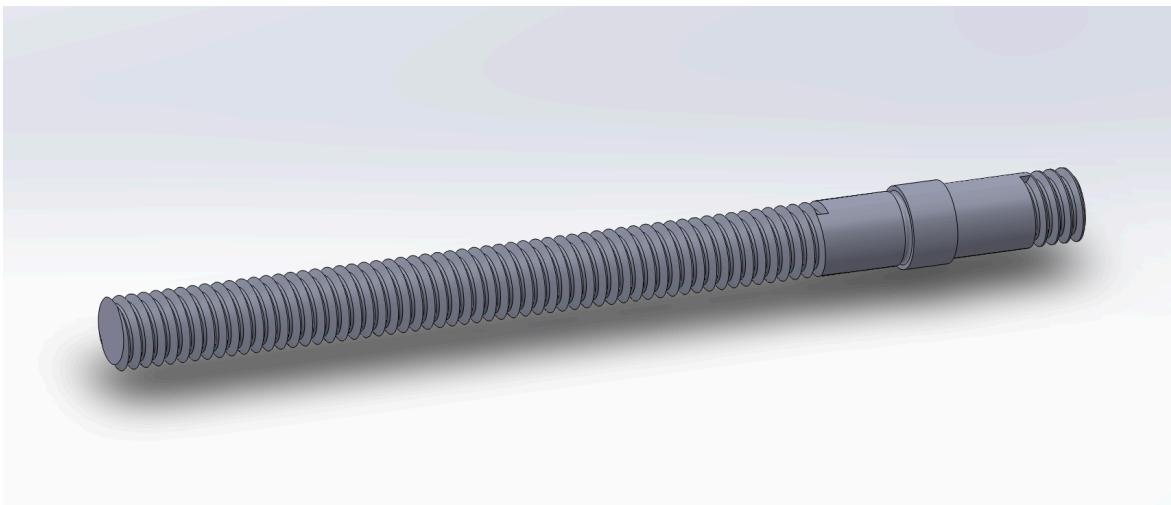
Assembly Manual for Professional Phone Gimbal

Introduction

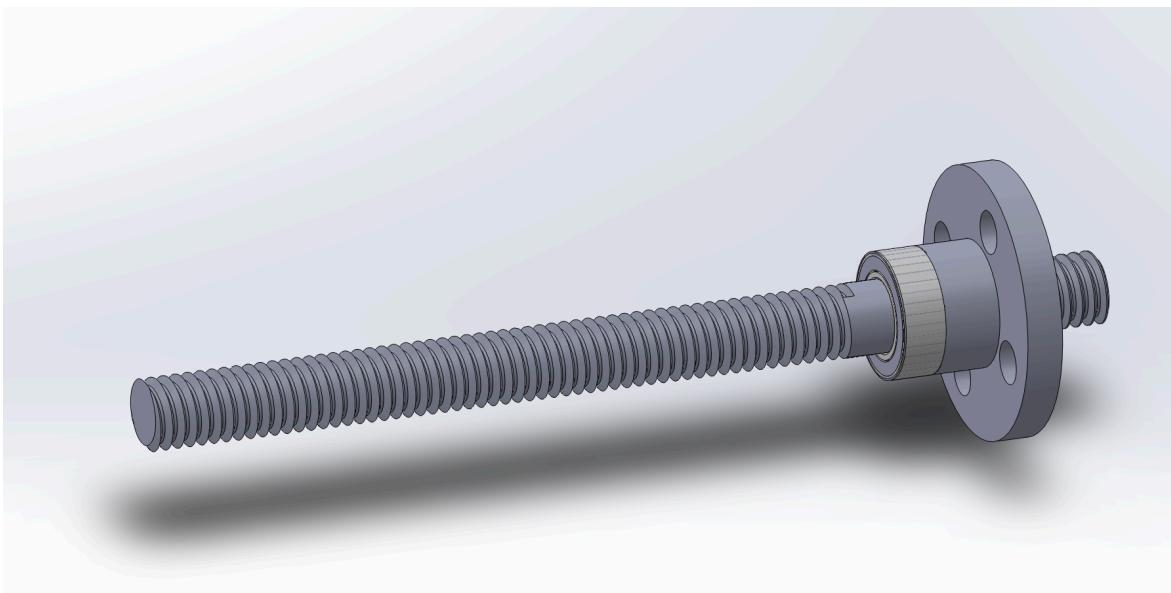
This document explains in detail how to build the finished professional iphone gimbal we have developed from the individual parts we manufactured. It tries to explain the simplest and most effective way of building the device with the design intent in mind. Hence, to make the life of the assembly worker simpler, the assembly process has a top to bottom approach in order to not overwhelm workers in the assembly process and minimize potential errors.

1 Building the Grip

1.1 Screw, bearing, and stopper.

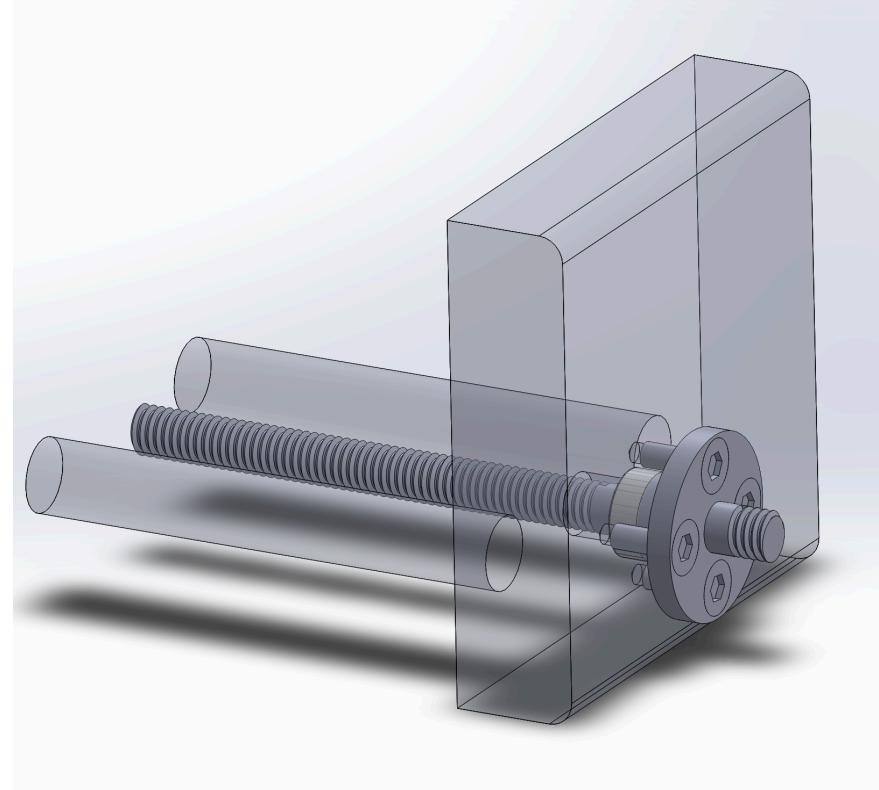


Starting with the grip screw (part *phone-grip-screw*) as shown in the image, we add the stopper (part *phone-grip-stopper*) and the bearing (assembly *w_627_4-2z*).

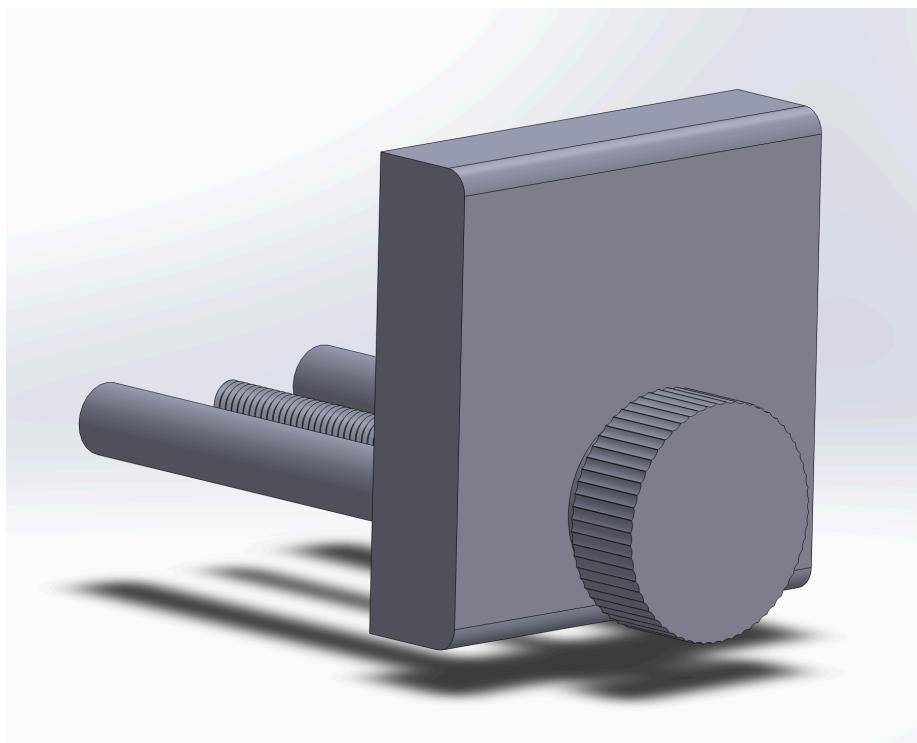


1.2 Rails, right part of the grip, and rails

Next, we put the right part of the gripper in place (part *phone-grip-secondary-grip*) and use 4x M2 screws to fix it in place.

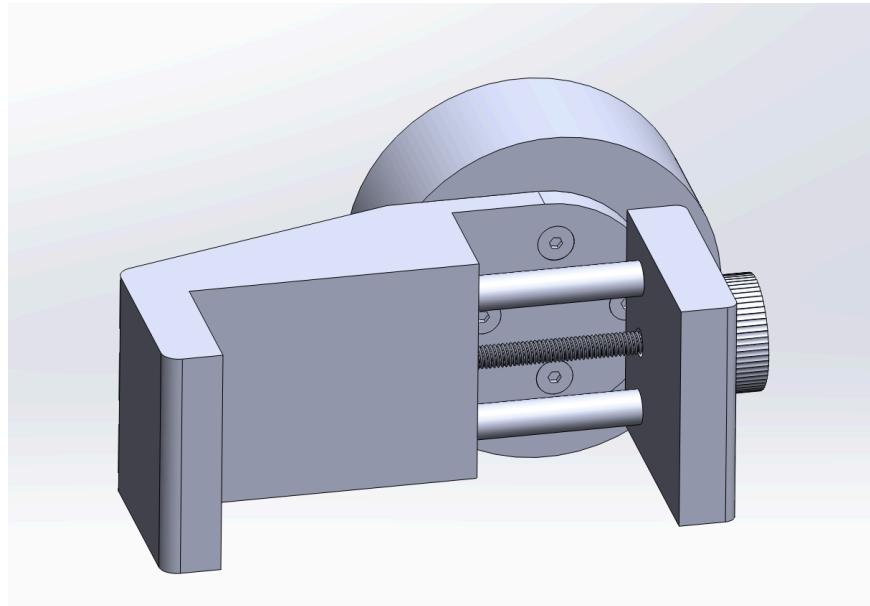


Finally, we can install the screw head (part *phone-grip-handle*).



1.3 Left part of the gripper

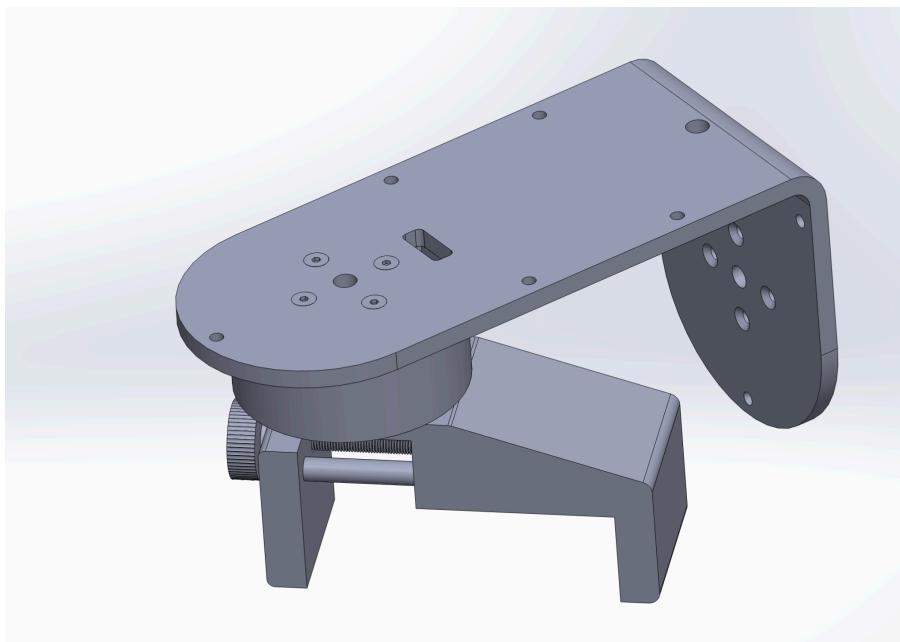
Now, we can finish the gripper by screwing using 4x M3 screws the left part of the grip onto one of the motors and joining the left hand side of the grip to what we have already built, making sure to align the rail. Then, we can screw both parts together and our grip is assembled.



2 Building the Gimbal

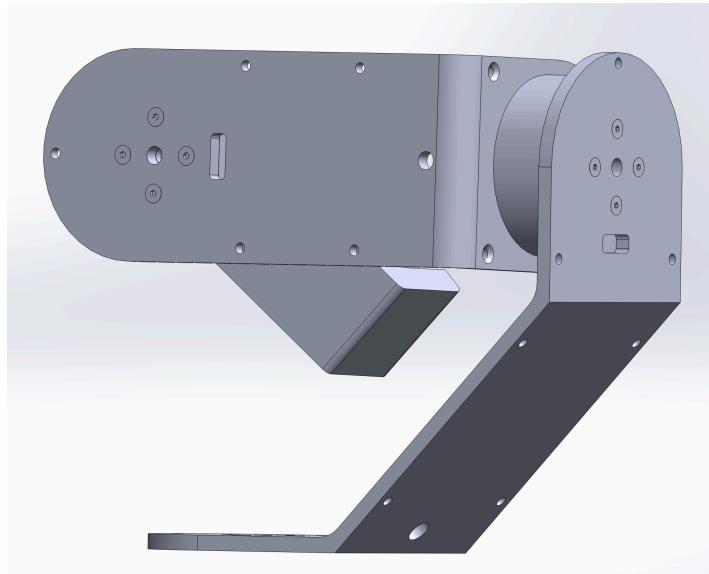
2.1 The first motor

The first motor is already attached to our gripper and cables should be coming out of the rectangular hole of the arm. Now we can install the secondary arm (part *secondary_arm*) and screw it using 4x M3 screws.



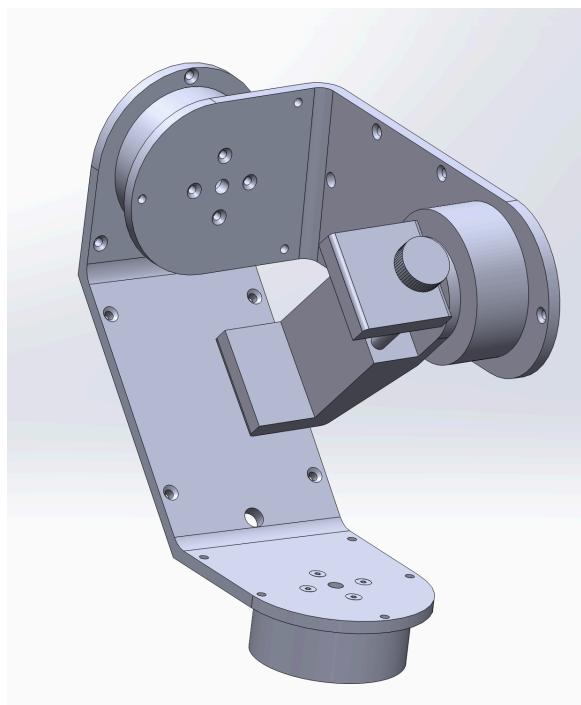
2.2 The second motor

Now, we do the same on the other side of the secondary arm, one side of the motor being attached to it, and the other to the primary arm (part *phone-grip-primary-grip*), using 8x M3 screws, one on each side. Pass the cables from the first motor through the hole in the middle of the motor and the one of the current motor through the rectangular hole in the primary arm. Tie them together. Do the same for the third motor.



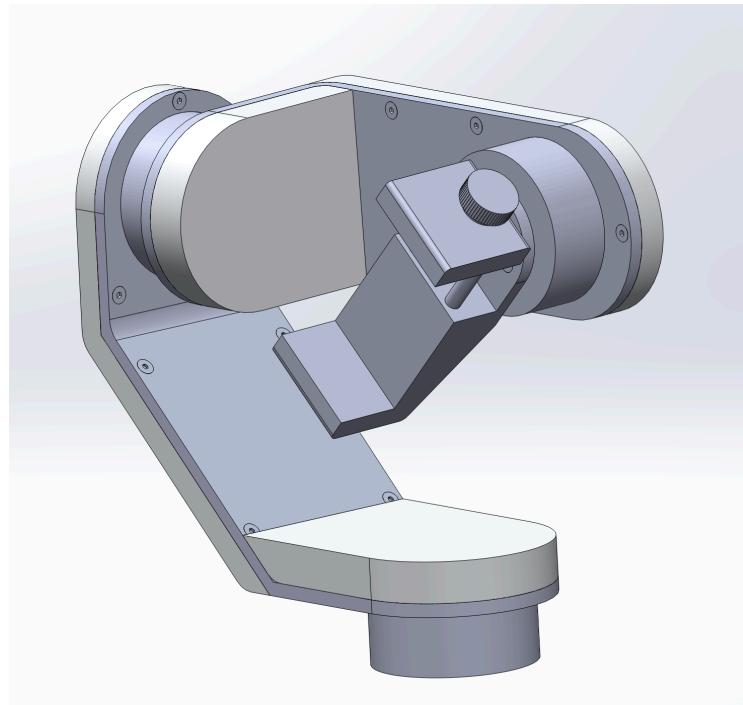
2.3 The third motor

Again, repeat the same process, fixing the motor using 4x M3 screws into the primary arm.



2.4 Shrouds

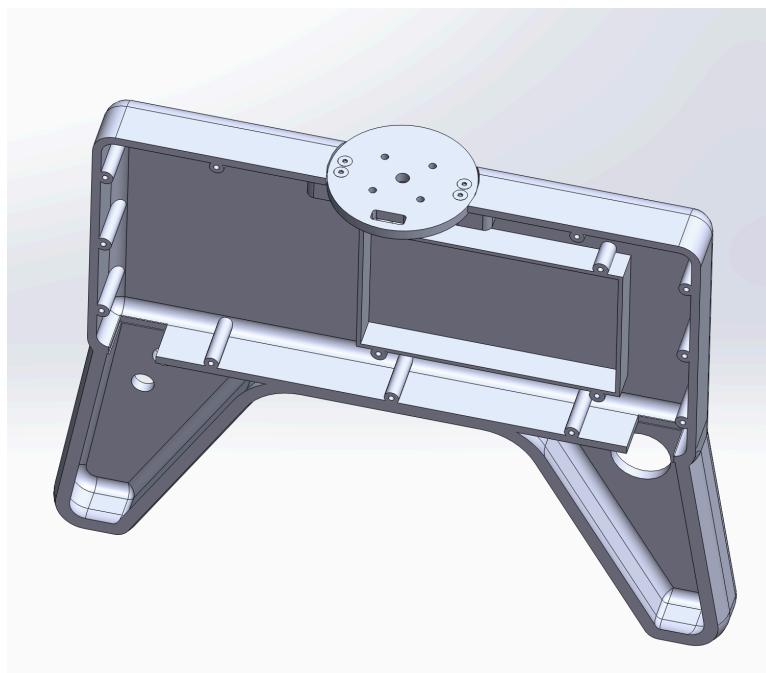
Now, add the shrouds (parts primary-shroud-1, primary-shroud-2, secondary-shroud-1, secondary-shroud-2) and use M3 screws to lock them in place.



3 Body

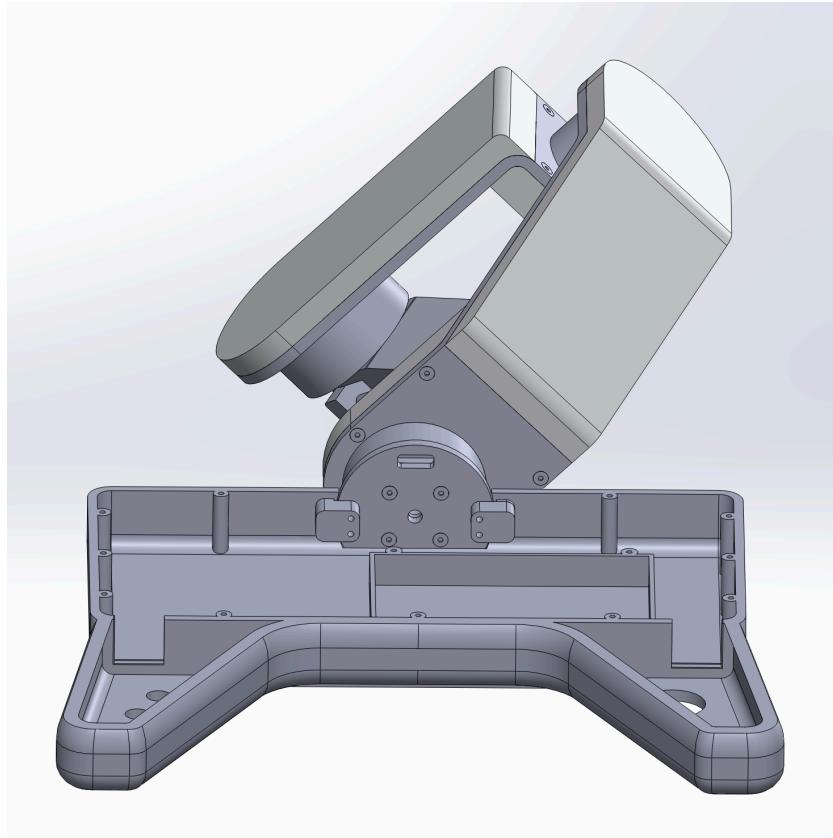
3.1 Gimbal base

Fix the gimbal mounting plate (part *gimbal-mounting-plate*) to the base (part *battery-main*) with 4x M3 screws.



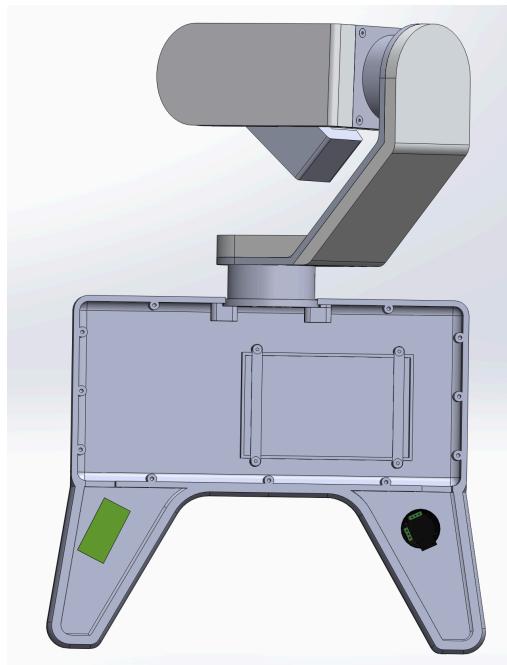
3.2 Attaching the Gimbal

Attach the gimbal to the base using the 4x M3 Screws passing through the mounting plate and being screwed to the motor.



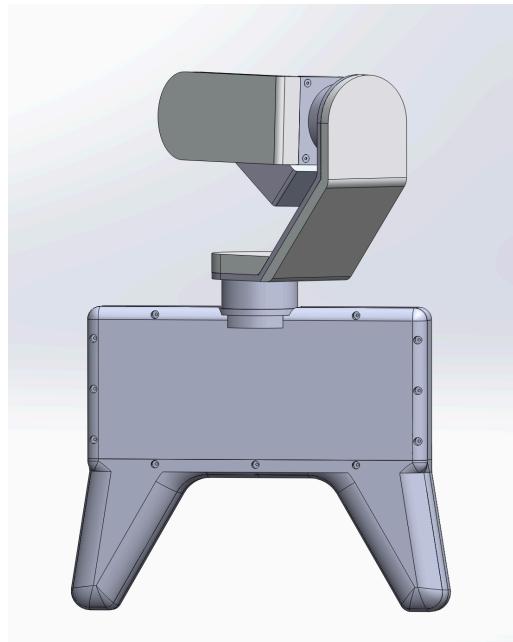
3.3 Installing the Electronics

Install the battery and hold it in place with 2x battery holders and 4x M3 screws (parts *battery*, *battery_holder*). Next, install the joystick and the button board (parts *9032* and *buttonboard*, respectively).



3.4 Closing the base

Lastly, close the base with the handle back (part *handle-front*) and 11x M3 screws.



4 Final Product

Your final product should look like this.

