

# *Caesar's construction process*

Installation of 3D designs

KANAAN Team

# 6 steps for installation

The first 3 steps:

**1)** Installing the robot chassis

**2)** Installing the battery pod and rear ultrasonic

**3)** Installation of processing controllers

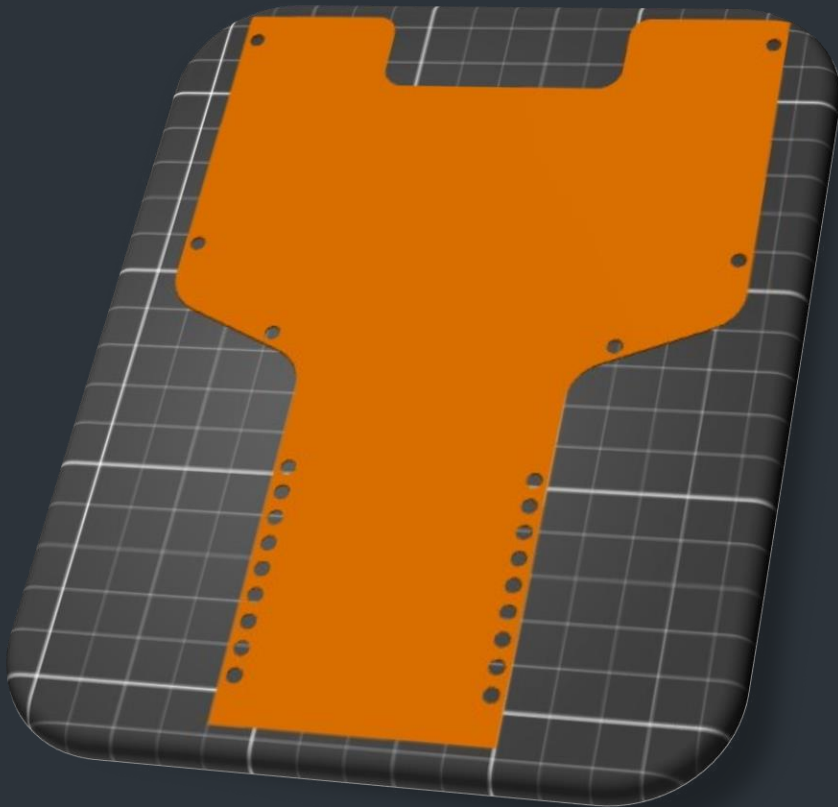
**4)** Installing the servo pod and camera holder.

**5)** Steering installation

**6)** Installation of front ultrasonic incubators

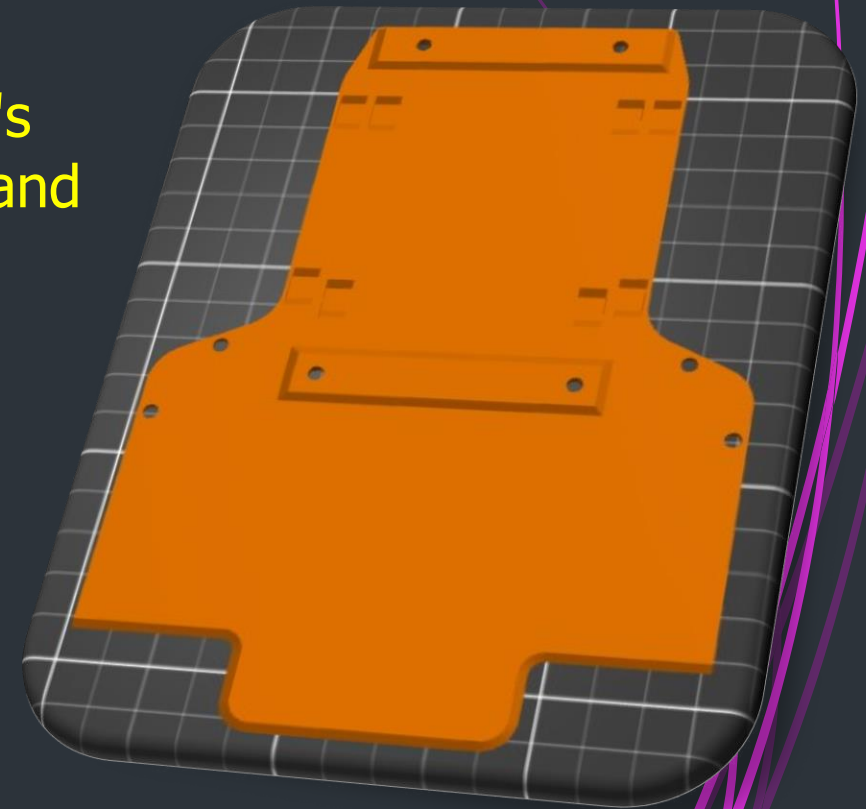
# 1) Installing the robot chassis

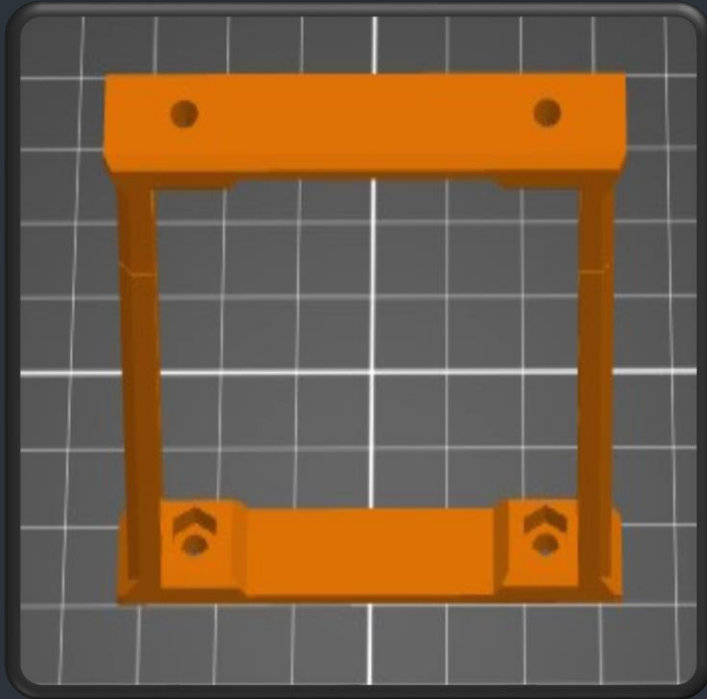
Front piece



These two pieces hand-assemble to form the car's body for further designs and installations.

Back widget





**1)** It is installed with screws and nuts on the rearmost part of the chassis

**2-A)** Installing the battery pod and rear ultrasonic



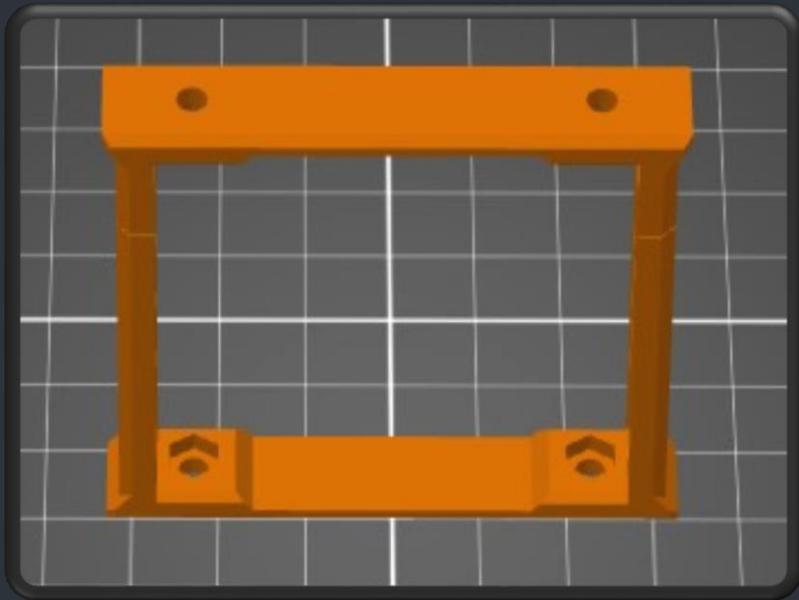
This is how it is installed



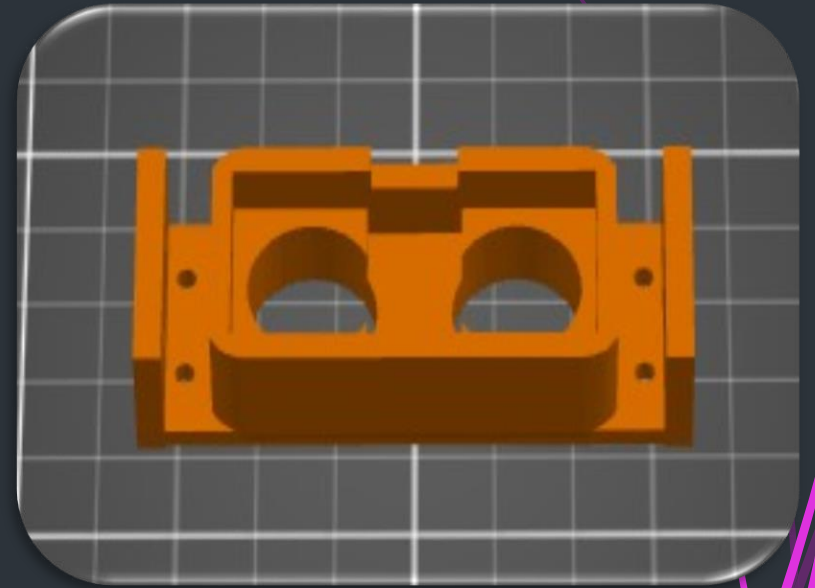
**2)** It is mounted with screws and nuts on the bracket shown in photo 1, with the battery on top.

**2-B)** Rear ultrasonic  
installation

One-step installation



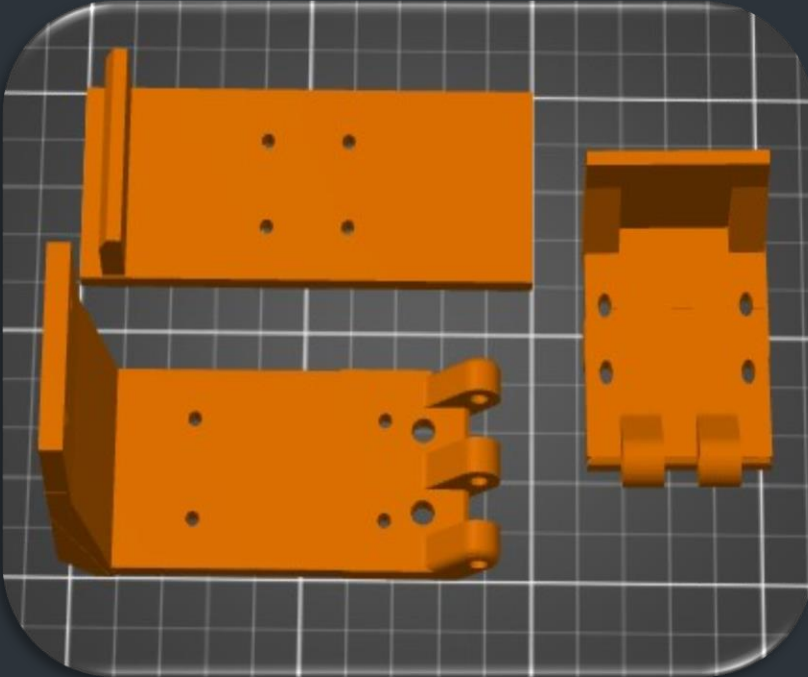
Battery pod holder



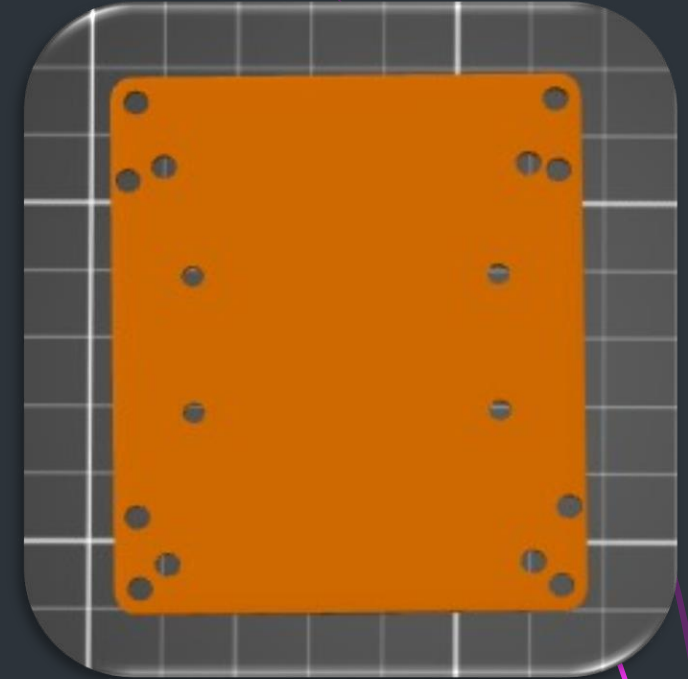
**1)** The sensor housing is secured with two screws to the carrier's vertical ribs.

### 3-A) Installation of processing controllers

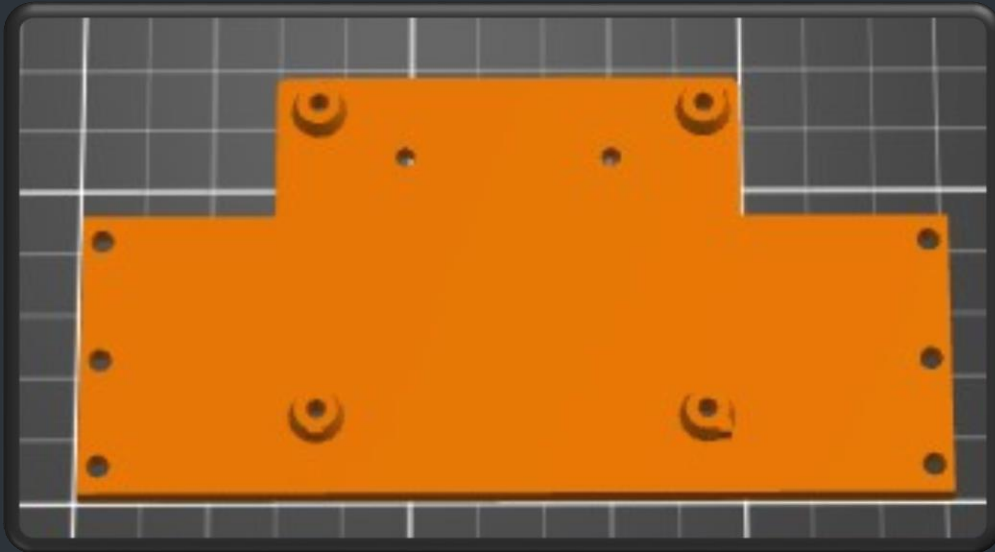
Installation in 3 steps



**1)** The two pieces are joined with screws and nuts, and their rectangular roof is silicon-glued to create a controller housing.



**2)** It is installed longitudinally inside the house to form a base for the ESP32

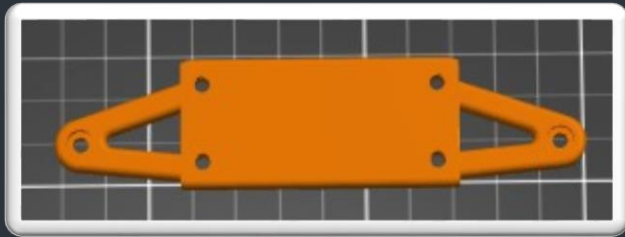


**1)** A base on which the Raspberry Pi is installed, a stand above it, and the controllers house above it

**3-B)** Installation of  
processing controllers

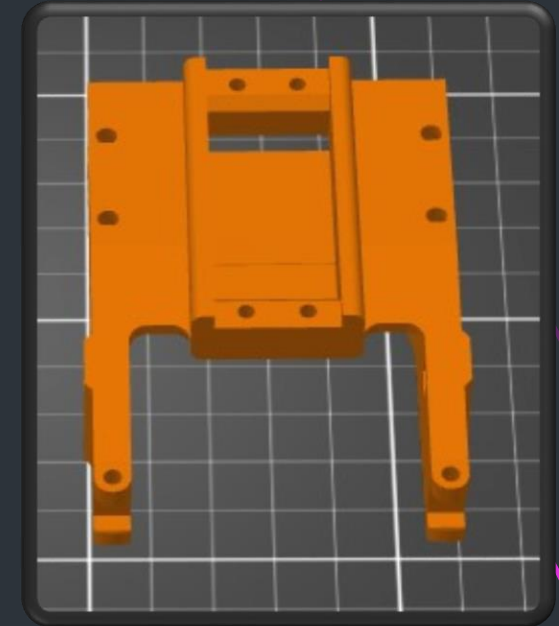
Integrating the Raspberry Pi  
into the controllers

#### 4-A) Installing the servo pod and camera holder.



**1)** A piece of steering wheel mounted on top of the Chassis with 4 screws

The steering assembly is integrated with the servo housing

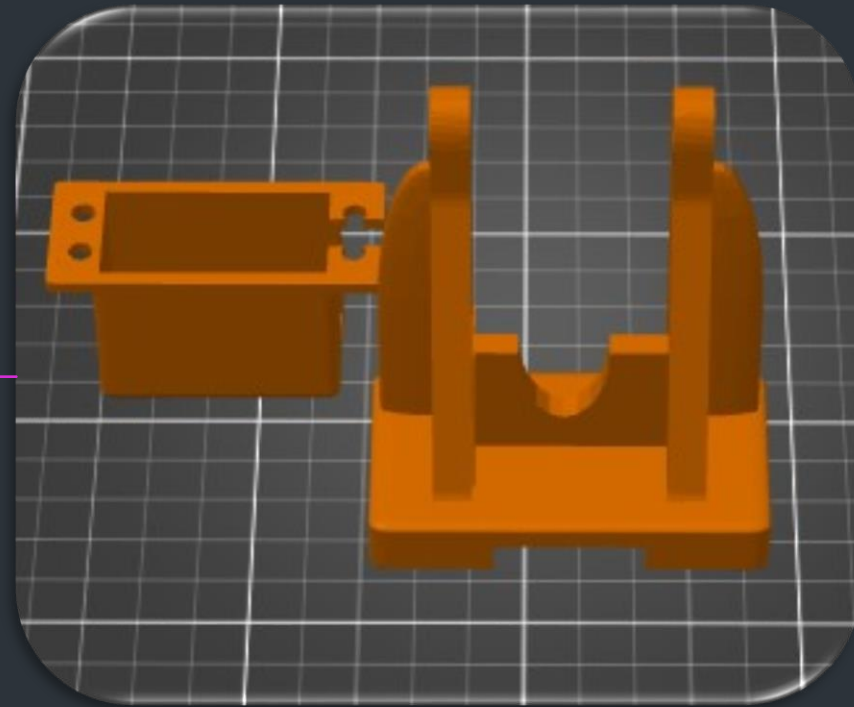


**2)** The servo assembly is mounted on top of the steering wheel using 4 screws and nuts



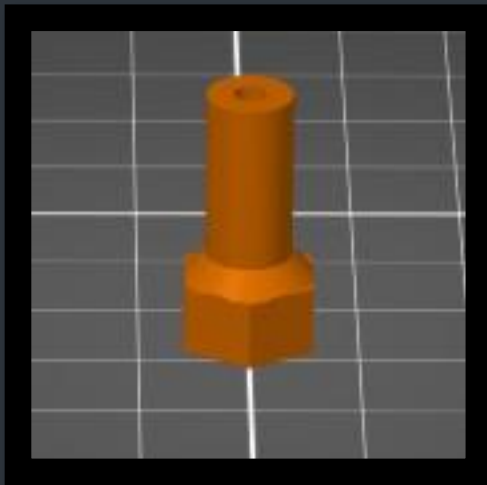
**4-B)** Installing the servo pod and camera holder.

**1)** This cover is placed to cover the servo and the camera holder is glued over it

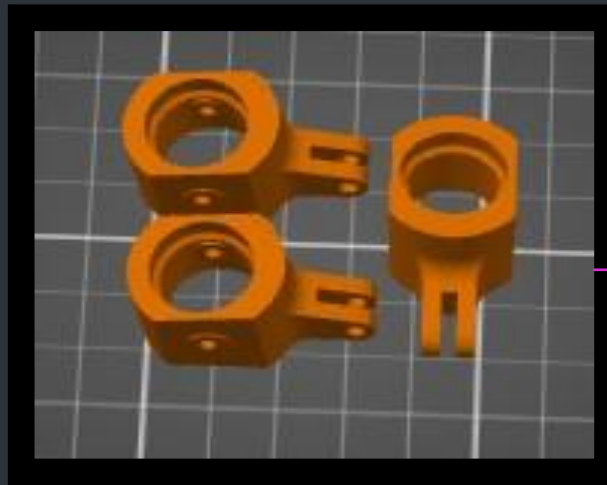


## 5-A) Steering installation

Preparing the wheels for installing the steering wheels



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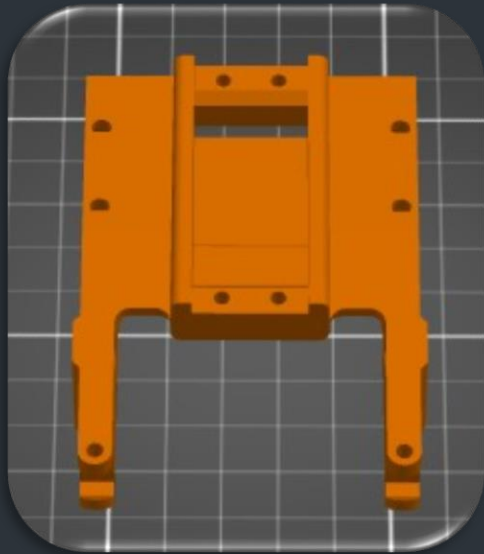


**1)** The hexagonal head is inserted into the wheel, and the cylindrical tail is connected to the steering wheel adapter in the accompanying image.



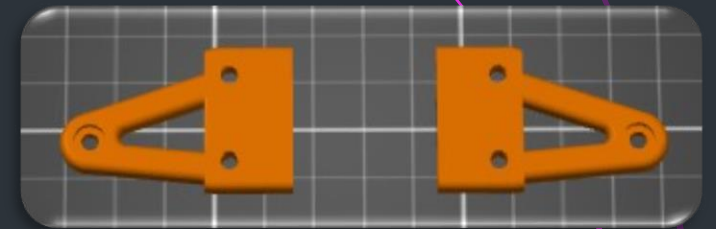
**2)** After assembly is complete, they are covered with this piece

## 5-B) Steering installation



**1)** In the previous step, we installed the lower steering wheel under the servo pod

We've already detailed the lower steering wheel installation, so here's further clarification.



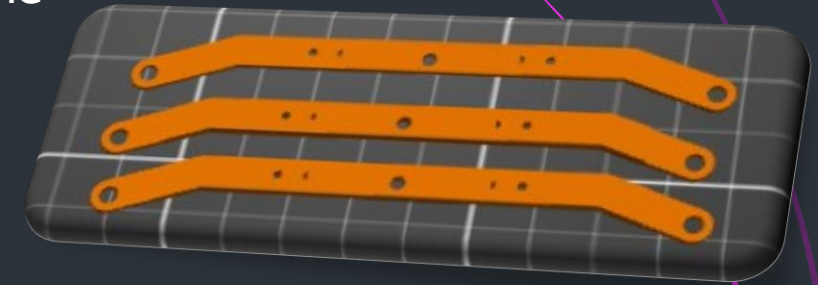
**2)** Each of them is installed with screws and nuts on the front of the servo housing

## 5-C) Steering installation



We previously explained about the motion vector, and now we explain its relationship with the motion engine

**1)** We mentioned it's attached to the handle using a hexagon-headed screw with a cap, secured top to bottom via a screw passing through the lower and upper string pieces, with an attached tongue for the movement engine



**2)** The motion motor is attached to the motion guide and then connected in the middle to the servo motor to go right and left

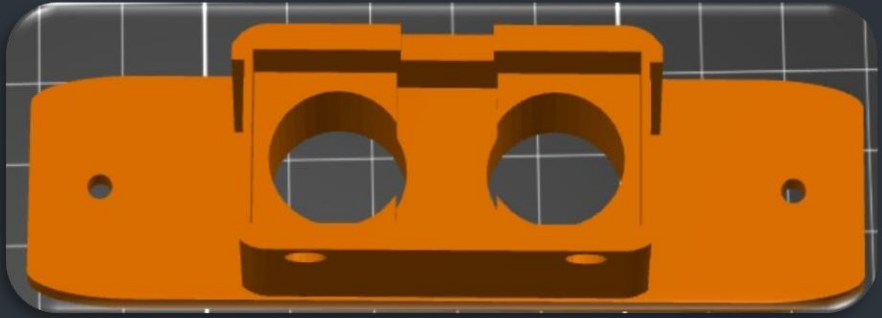


This picture shows the installation of the fifth step and part of the fourth

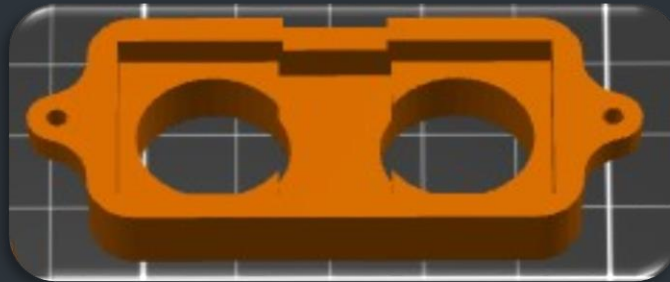


servo slider: It is connected from the servo at the bottom to the hole in the middle of the motor with a spring

**6) Installation of front  
ultrasonic incubators**



**1)** The front ultrasonic incubator, on both ends of which the following two incubators are installed



**2)** Ultrasonic incubator right and left



**3)** Back covers for the ultrasonic incubator, right and left, for consistency

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*THANK YOU*