Gripper

- A gripper is a device which enables the holding of an object to be manipulated. The easier way to describe a gripper is to think of the human hand. Just like a hand, a gripper enables holding, tightening, handling and releasing of an object.
Assembly
Assembly 1:

• Insert *one* of the two servo motors that you have, in the rectangular slot of the *Gripper Base Plate*.
• Fasten the servo to the plate using *12mm M2 bolts* and *M2 nuts*. 
Assembly 2:

• Set the servo angle as 45° using evive’s control menu.
• Now, fasten the Gripper Link to the second hole of the single sided servo horn using an M2 screw (available with the servo motor). Keep the joint slightly loose so that this assembly can move easily.
Assembly 3:

- Mount the *Gripper link* to *Gripper Claw 1* using 12mm M3 bolts and M3 nuts.
Assembly 4:

- Fasten the entire assembly to the *Gripper Base Plate* – *Servo Motor* assembly such that the single sided servo horn locks onto the free servo head as shown in the corresponding figure.
- Place the two gripper claws such the gears *mate* i.e. the gear teeth fix into each other.
- Now, fasten both the claws to the *Gripper Plate* using **16mm M4 bolts** and **M4 nuts**.
Assembly 5:

- Fasten the servo horn to the servo head using the **M2 screw** available in the servo accessories (available with the servo motor).
- Your Gripper is Ready.
Circuitry
Circuitry

- Connect the servo motor to servo port 1 (S1).

Note the color of three wires of Servo. Brown wire will go towards left in evive.
Controlling Gripper
Controlling Gripper

• Connect the servo motor to evive one more time, and vary the servo angle between 45° and 90° using the evive control menu.
• The gripper claws should open at 45° and close at 90°.
• If it doesn’t, then set the servo angle again as 45° and adjust the orientation of the servo horn and the gripper claws such that the assembly works properly.
Programming
Interfacing evive with PictoBlox

• Connect evive to your laptop/PC and open PictoBlox.
• In PictoBlox, go to the menu and click on the Boards. Select the evive.
Interfacing evive with PictoBlox

- Once you’ve selected the board, click on the Connect tab and connect the board.
Upload Firmware

• You have to upload the firmware into the device before interacting with it.
• Click on **Upload Firmware** button.
• Once you successfully uploaded the firmware you will see evive logo on evive display.
In this script we want to open the gripper only when the SPACE key is pressed, otherwise close the gripper.
THANK YOU