3D printed parts:
Arm base round as diameter of motor below with 4 hole near the edge and with a distance of the thickness of the jaws on opposite side and a hole in its center
Motor holder, round with a bit larger than the diameter of motor and height of the whole motor + 5 cm

Robotic arm stabler
A small rectangle solid 1.2x3.0 cm with 2 exerted holes on 2 side for insertion of 2 nail
2 square sticks with holes on their ends slightly bigger than the nail size
2 jaws with 2 holes in the end to insert the rod for pivot
2 small rod with diameter of 1 cm with holes on 2 near end with a distance of the thickness of the arm plus the diameter of the screw.
Another motor holder with length of motor length times 2 and cross sectional area of motor diameter + 2 cm and with a 3 cm solid base for inserting a high torque motor to rotate the arm
A round place with 0.5 cm thickness and diameter of previous motor holder and also a little hole in the middle

*all motor holders have 0.5 cm thickness

Non 3d printed parts
6 Brass or bearing
One motor with really high torque
1 motor with medium torque
1 servo
2 plastic soft frictional thing

4 nut for arm linear motion hinge
4 small screw for the hinge also

8 nuts for additional height above the arm base
4 medium long screw
4 nuts for stabling the pivot rod for the jaws

4 screws for connecting the motor holder and arm base

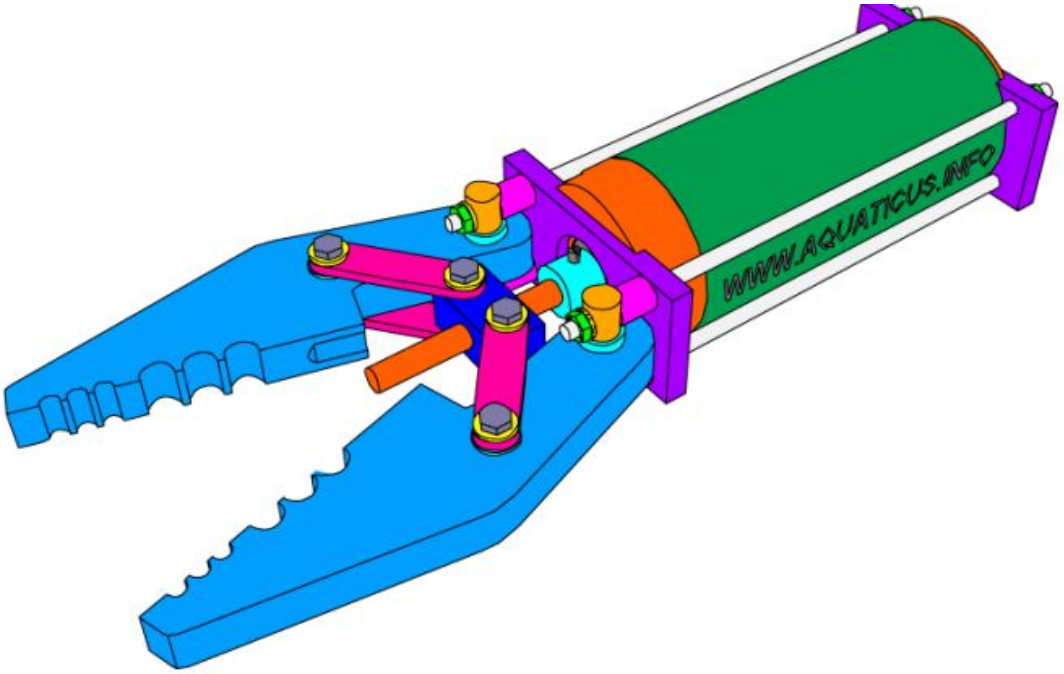
Epoxy glue
3 meter wires
Wire Connecter
2 pwm for 2 motors
Lots of Arduino wires
1 bread board
1 arduino mega or 2 arduino uno
A 4 way joystick
blg RED BUTTON

http://www.robotoid.com/howto/choosing-a-motor-type.html

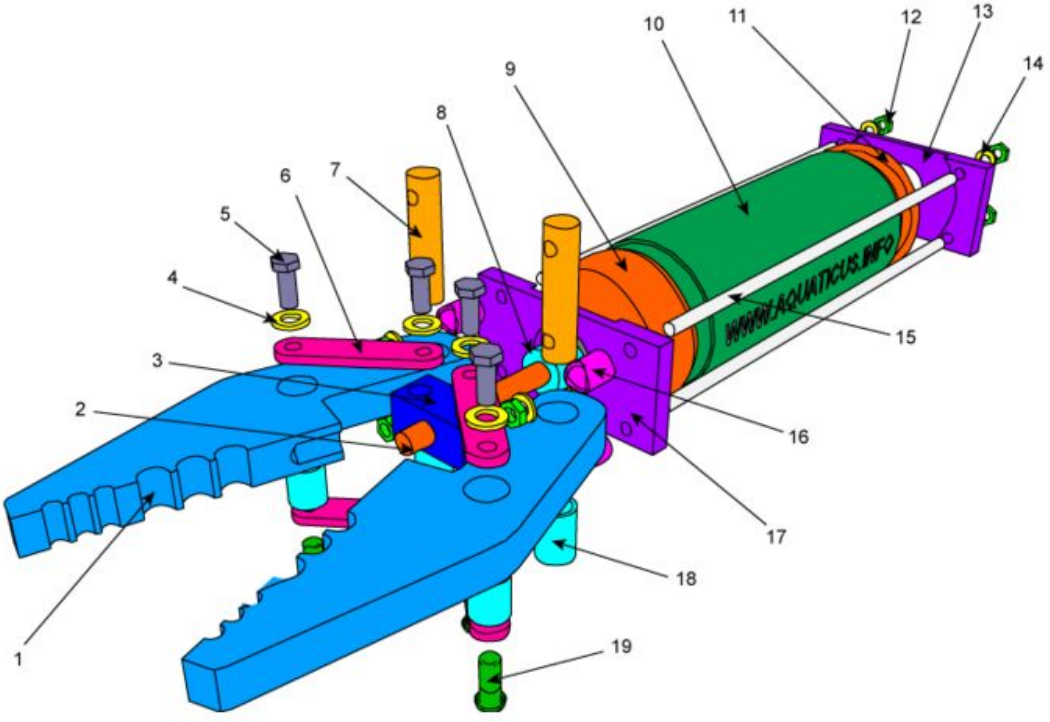
Waterproof DC Motor:
http://letsmakerobots.com/content/waterproofing-dc-motor-sugru
https://www.youtube.com/watch?v=wIcCz5m9LwQ

Brushless DC, check it out.
If you can waterproof or not, I brb dinner

R/C Servo seems the best



Top view



1. Jaws × 2; 10mm Plexiglas
2. Threaded rod ø8mm × 1; metal
3. Nut assembly × 1
4. Washer × 4
5. Bolt × 4
6. Link actuator arms × 4; aluminum or steel
7. Pivot bush/mount Ø10mm × 2
8. Bearing assembly × 1
9. Simmering sealed front cap × 1; Plexiglas, simmering×2
10. Motor housing; PVC pipe ø50mm × 1, size depends on motor size
11. O-Ring sealed motor housing end cap × 1; Plexiglas + o-ring
12. Nut × 4
13. Compression plate × 1; steel or aluminum, lathe work
14. Washer × 4
15. Studded bar × 4
16. Pivot mount bush ø8mm × 4
17. Compression plate/mount × 1; steel or aluminum, lathe work
18. Bush × 4; steel or brass (the best)
19. Nut insert × 4

Elements that are permanently connected:

- 18+1 (epoxy glue)
- 9+10 (epoxy glue)
- 5+19 (epoxy glue)