

# DIY Robotic Arm Precautions

**Note:** When the robotic arm is gripping objects, you need to control the gripper angle. Improper angle settings may cause the servo to stall and burn out.

Here is a compiled table of gripper angle correspondences, recording the approximate servo angle required to grip objects every 0.5 centimeters in size.

You can reasonably adjust the angle settings during gripping based on this table to avoid servo stalling.



Object Length (cm)	Servo Angle (degrees)
0	180
0.5	176
1.0	168
1.5	160
2.0	152
2.5	143
3.0	134
3.5	125
4.0	115
4.5	105
5.0	95
5.5	80
6.0	57
6.0-6.4	0-57

For example, the vision recognition block we provide has length, width, and height of 3cm each, so setting the servo angle to 134° will allow it to grip properly. Do not set the angle too large.

