

SERV 😊 SUCCESS!!

MIGHTY Mechanics Programming Team

After countless hours of working with servos, we have learned a ton!
Here is a list of everything we have learned:

- We have found the maximum range of a continuous servo is 0.0 to 1.0
- To run a continuous servo in one direction have the set position to 0.0.
- To run a continuous servo in the opposite direction have the set position to 1.0.
- To make a continuous servo stop set the position to 0.5.
- On [linear opmode](#) you can use sleep statements to control the amount of space between each short pause (how long it runs for until it stops/pauses)

Below is an example of a continuous servo control using gamepad buttons in a [linear opmode](#)

```
// update the position of the ConvServo
if (gamepad2.x) {
  ConvServo.setPosition(1.0);
  sleep(800);
}
if (gamepad2.b) {
  ConvServo.setPosition(0.0);
  sleep(800);
}
```

Below is an example of a continuous servo using the bumpers on a gamepad in a [linear opmode](#)

```
// update the position of the LRServo
if (gamepad2.right_bumper) {
  LRServo.setPosition(0.7);
  sleep(100);
}
if (gamepad2.left_bumper) {
  LRServo.setPosition(0.3);
  sleep(100);
}
```

Below is an example of minimum and maximum servo ranges in a [linear opmode](#)

```
//clip the position values so that they never exceed 0..1  
LRServoPosition = Range.clip(LRServoPosition, 0.3, 0.7);  
ConvServoPosition = Range.clip(ConvServoPosition, 0.3, 0.7);  
//write position values to the LRServo, UDServo and ConvServo servo  
ConvServo.setPosition(ConvServoPosition);  
LRServo.setPosition(LRServoPosition);
```

Below is an example of setting the position of continuous servos in a [linear opmode](#)

```
// Set starting position of servos  
//find the starting positions of the servos  
ConvServoPosition = 0.5;  
LRServoPosition = 0.5;  
ConvServo.setPosition(ConvServoPosition);  
LRServo.setPosition(LRServoPosition);
```

Below is an example of hardware maps servos controllers and servos. This can be used in a [Opmode](#) and [Linear Opmode](#).

```
ConvServo = hardwareMap.servo.get("ConvServo"); // channel 1  
LRServo = hardwareMap.servo.get("LRServo"); // channel 3  
servoController = hardwareMap.servoController.get("sc1");
```