

Linear Servo Mount

Another 9g servo mount, and again another Fraser Smith original, although this one has had a bit of remixing over the past couple of years. The rack and pinion based linear servo mount is very popular among members, particularly those setting up new layouts, and those converting from older points switching systems. Indeed we are regularly asked for batches of 30 of these at a time!

The mount can be deployed under the board or trackside, and has half a dozen possible orientations, and about a dozen places where either an omega loop spring or a simple actuating wire can be attached. If deployed trackside a small building can easily disguise it.

As delivered it offers about 15mm maximum linear motion over the 180° of the servo's travel. It could be used to drive a lever to offer greater range with less precision, or greater precision over a smaller range, but the 'raw' travel is ideal for points, couplers and small animations.

The graphics show the three parts of the mount and the slightly see through servo in blue. The frame is in yellow, the rack is grey and the pinion is in white. Neither the screws for mounting the servo to the frame, nor the screw for holding the pinion to the servo are shown, for clarity.

The pinion is splined to be a 'snug' fit to most of the 9g servos we use, but it is essential to use the horn retaining screw supplied with the servo to keep the pinion from 'walking off' the servo shaft through repeated usage. Whilst the rack and pinion will happily run 'dry', a spot of white lithium grease will lower friction, eliminate stiction and extend the life of the mechanism.

As ever, should you wish to talk about improved/modified versions of this or anything else, contact Davy the WoSAG convener or myself via email, phone or directly at any of the meetings.



