

## Tip of the month - Apr 2019

### Switching to servos

There are a number of ways that you can operate your points.

The available options are:

#### Human

- Finger operated – Not very convenient on large layouts
- Rods – Avoids leaning over layout but limited mechanically
- Wire-in-tubes – Fiddly to set up and keep in adjustment

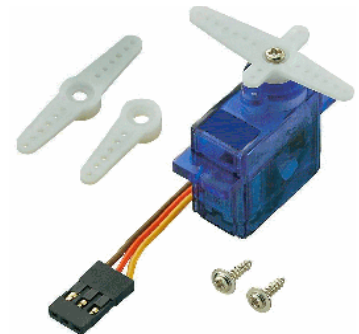
#### Electrical

- Memory wire – Too slow
- Solenoids – Widely available (Hornby, Seep, Peco, Atlas, etc.) but are too rapid, noisy and fierce.
- Stall motors – Smoother quieter operation but are expensive (Tortoise, Fulgurex, etc.) and the speed is not adjustable.

#### Electronic

Servos provide the following benefits:

- Quiet operation
- Adjustable speed
- Adjustable range
- Cheap



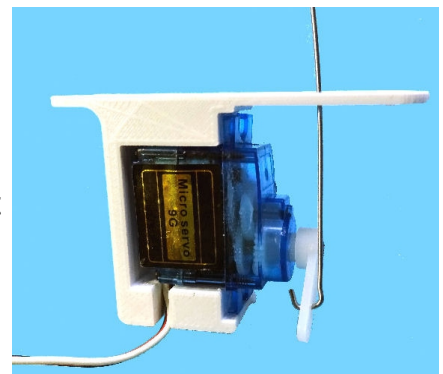
#### What do you get?

A servo comes in a bag with the main body, a selection of arms (called 'horns' for some reason), a screw to secure a horn on to the rotating shaft, and two screws to secure the servo on a mount.

#### How do you use them?

A range of plastic mounts are available.

The one shown in the illustration screws under the baseboard. A length of piano wire connects to the horn at one end and to the point's tie bar at the other end. When the horn rotates, the wire pivots round the hole in the mount and creates a horizontal movement that operates the point.



#### How are they controlled?

Servos use special controllers that produce the signals that are sent to servos. Commercial controllers are available, such as those from MegaPoints, Heathcote Electronics, and Peco.

MERG produce much cheaper kit versions – the Servo4 and EzyPoints (see this month's 'Kit of the Month' for more details).

Servo, mounts, piano wire and servo controllers are all available at MERG events.