joysticks

(G. Wünsch)

Joystick-type controls are becoming as popular in the electronic game field as they have always been for remote control of model aircraft and boats. One of the major drawbacks of this type of control is, however, the expense – they usually cost rather more than two normal potentiometers!

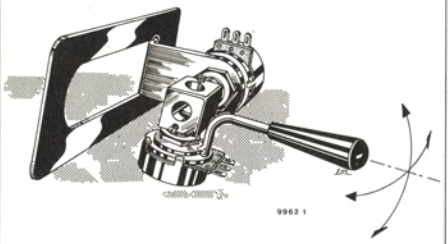
Provided the appearance isn't considered too important, it is quite feasable to construct a joystick control that will be quite suitable for most applications. The two sketches illustrate the construction of a simple and a more sophisticated version.

In the simple version shown in figure 1, the two potentiometer spindles are joined at right-angles. This can, of course, be done in several ways; using a block of brass or plastic with holes drilled in it, as shown, is probably as good as any. One of the potentiometers is mounted on a stand; the other is fastened to a control lever.

The more sophisticated version, shown in figure 2, works on the same basic principle: two normal potentiometers joined at right-angles. However, in this case two springs are included to return the control lever to neutral. The construction is, understandably, more complicated.

One of the potentiometers is mounted on a base-plate. A metal (or plastic) right-angle is mounted on the spindle. A spring is looped round the potentiometer spindle, with its open ends resting against a bolt. A longer bolt, mounted on the right-angle, engages the spring in such a way that the spring acts to centre the right-angle – and, with it, the potentiometer. Two further bolts, mounted on the base-plate, serve as end stops (the height of sophistication!). The second potentiometer is mounted on the second flange of the right-angle. The control lever is mounted on its spindle, with a similar spring-and-bolts construction to centre it.

1



2