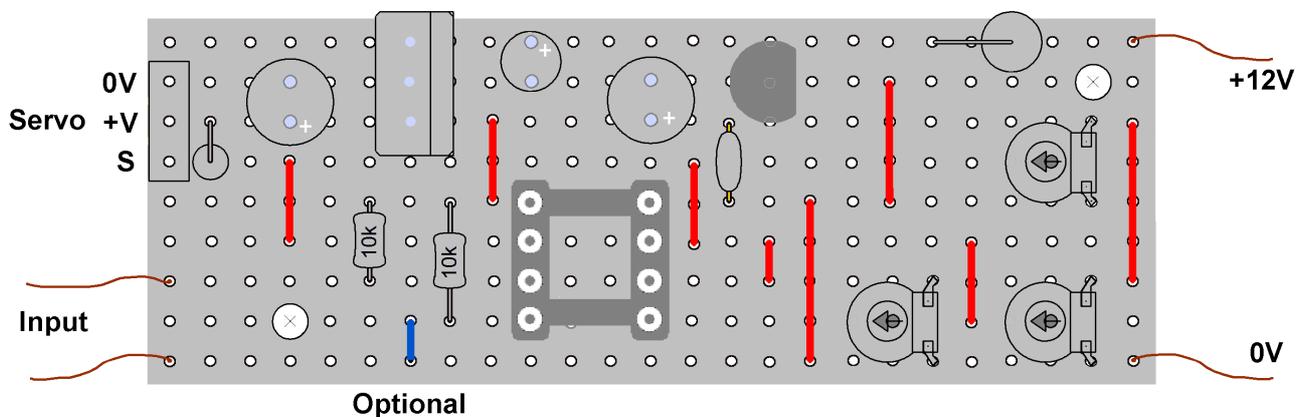


Tip of the month - December 2019

Links

Most Pocket Money Kits use wire links in their construction. Some use only a couple and some have quite a few. For example, here is the layout of the EzyPoints kit with links shown in red and one shown in blue.



What do the red links do?

There are only nine copper tracks on this piece of stripboard which is too few to make all the necessary connections between the components. In addition, with so many components on the same board, they cannot all connect to the same few tracks.

The answer is make cuts in the tracks, so that there are many more than just nine separate mini-strips to which you can solder components.

Where required, you can then join some of these track sections together by linking between them with a piece of wire.

What is the blue link for?

The EzyPoints kit above uses the link shown in blue to provide an option to the user. With the wire link fitted, the servo will rotate to a maximum of 180°, while it will rotate to a maximum of 90° if there is no link.

Other kits use this method.

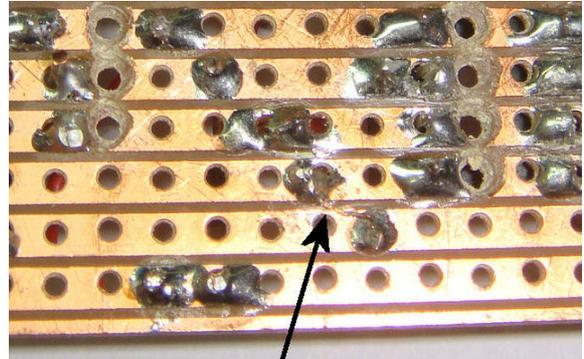
For example:

- The Lighthouse kit has three links, providing eight different lighthouse patterns, depending on which links you fit.
- The Timer kit has three links. Two links decide whether you want the delays to be in seconds or minutes; the other link decides whether you want the timings to be random or not.
- The Traffic Lights kit has three links, providing 8 different operating speeds.

What wire should I use?

Most links are not carrying heavy current so there is no need to use very thick wire.

Also, it is best to avoid using wires that have multiple strands as stray strands can easily end up shorting across tracks. Here are some examples from member's builds:



Using single strand wire is more likely to avoid such mistakes.

The holes in stripboard are 1.01mm, so the link wires will have a smaller diameter than that,

In all cases with PMPs, there is no need to use insulated wires.

If the links are sufficiently taught, there is no danger of unwanted contacts.

There are three possible options of wire types:

- Use the leads that you have cut off from resistors, etc. This may not be sufficient in some cases.
- Use insulated hookup wire. (available at our meetings).
- Use tinned copper wire as shown here.

The tinned wire works out at around 14p per metre and a metre will go a long way as most links are very short.

I will purchase a roll of tinned wire and break into manageable lengths for sale at future meetings.



Rapid

Unistrand 500gm Reel 22SWG Tinned Wire

Order Code: 05-0315

- Wire size: 22SWG
- Core diameter: 0.71mm
- Length: 140m
- Carrying current: 24A
- Approved to BS4109

Unit Price (Inc VAT)

£19.22