

## 4:8 Digital Control of the D188 Remote Electrode Selector

The scheme below shows how 5 TTL compatible digital outputs (DO) from a PC-based data acquisition interface can be used to trigger and direct stimuli from a single electrical stimulator to one of up to eight different electrode pairs. One TTL compatible output is used to trigger stimulus delivery, via the Trigger IN socket on our stimulator (e.g. DS3, DS7A, DS8R etc), while the remaining four are used to encode a 4-bit binary string which instructs the D188 when to switch channels. Note that the periods when a particular channel is active are longer than the period of stimulus delivery. This ensures that the D188 relays have completed switching before a stimulus is passed to the D188. Delivering a stimulus while the relays are moving can result in unexpected behaviour and damage to the D188.

