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sniff race control

With many model car race-tracks the circuit consists of two concentric tracks, so the inside track is always shorter than the outside track. A widely employed method to have both race-cars still cover the same distance is to constantly switch them from the inside to the outside track and back again by means of cross points.

An entirely different approach is the so-called sniff race. During this race the two cars follow the same track. The cars start with half a track distance between them. The car that catches up with its opponent until it bumps into it (sniffs at it) is the winner of the race. With ordinary race-tracks it is not possible to have two cars ride the same track and be controlled independently, but by means of a small modification to the d.c. supply and the cars this becomes possible.

Figure 1 shows what the supply of the race-track usually looks like. Via a bridge rectifier each of the two tracks is fed with a pulsating direct voltage. In the modified version the positive and negative half-cycles of the alternating voltage are separated with diodes and made independently adjustable. Furthermore, the motors of the car are fitted with a series diode so that two cars can be controlled simultaneously and independently of each other (see figure 2). One car then runs on a positive voltage (in this case car 1) and the other on a negative voltage. For the latter car, however, the polarity of the motor must be changed, or the car will run backwards.

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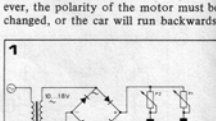

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