

User manual
Priority circuit
IR



DC
Car

Digital Controlled
Digital Controlled
voor Car-systemen

Instructions

Priority circuit IR

Preface

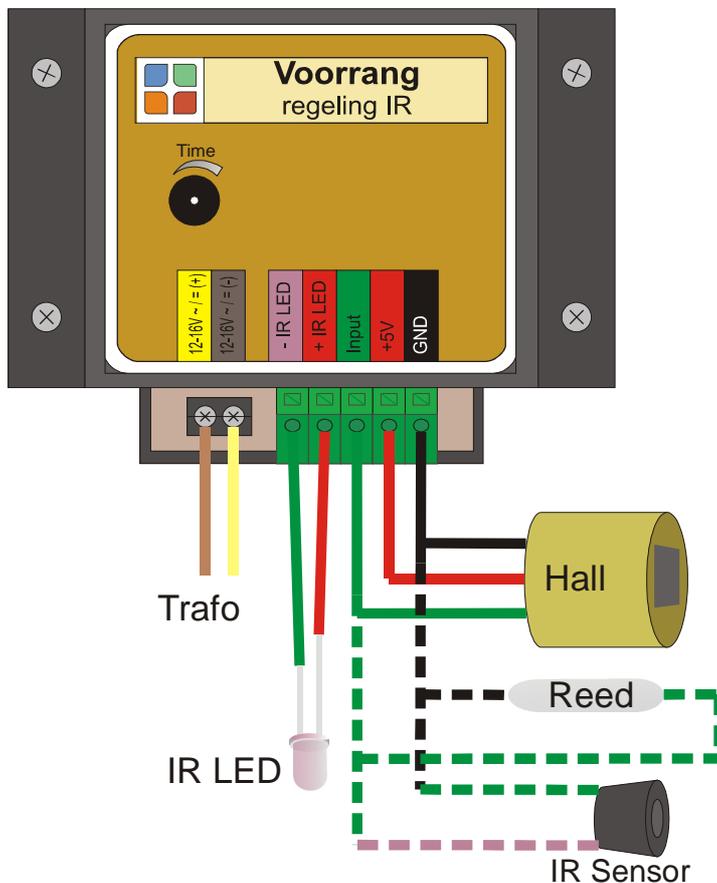
Congratulations on the purchase of the priority circuit.

With this priority circuit you can simulate a large number of traffic situations. The control consists of a circuit that sends a DC-Car Stop command to the vehicles for an adjustable time. The input of the circuit must be switched to ground (pulse) to start the control of the Stop command. This can be an optional Hall sensor, reed contact or IR sensor that is installed in / next to the road. The Hall sensor / reed contact will respond to the tug magnet of the vehicles. The IR sensor responds to the DC-Car IR signal from the cars. This can be a manhole cover IR sensor for installation in the street or an FTR road marking pole that is placed next to the road.

The circuit works with a pulse extension which means that the STOP time is extended when new pulses come from the following vehicles.

The circuit has a built-in resistor for the Infrared LED (*long leg is the +*).

Connections:



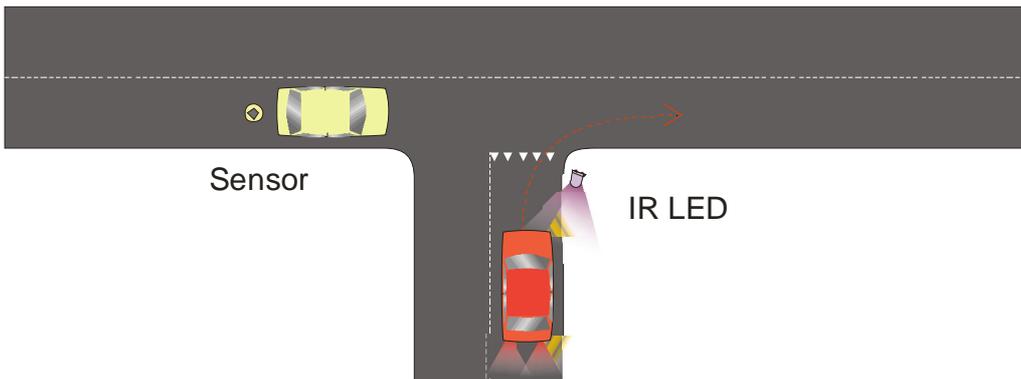
A normal train transformer can serve as power supply, either DC or AC voltage may be connected.

Multiple Hall sensors may be connected to the input. As the drawing shows, a + 5 Volt power supply is provided for the Hall sensors. Red: +, black: ground, green: input. Of course, a switch can also be used as switching elements, this is connected between ground and input.

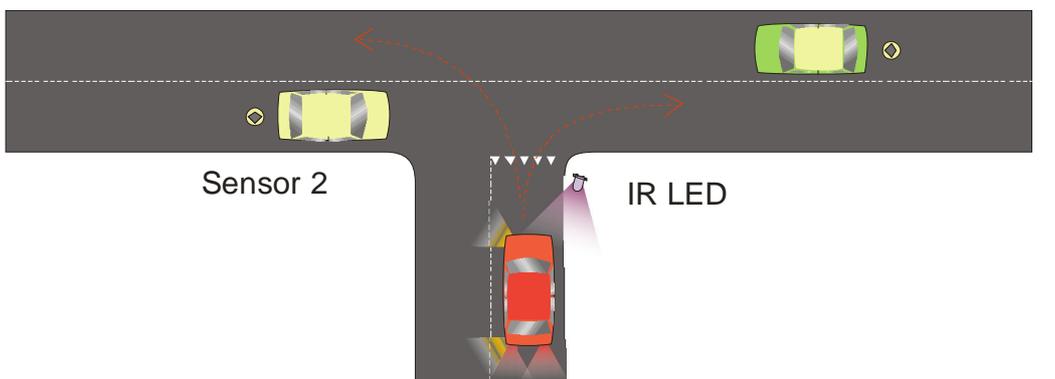
The time can be set with the rotary selector (1 sec. - 20 sec.).

Examples:

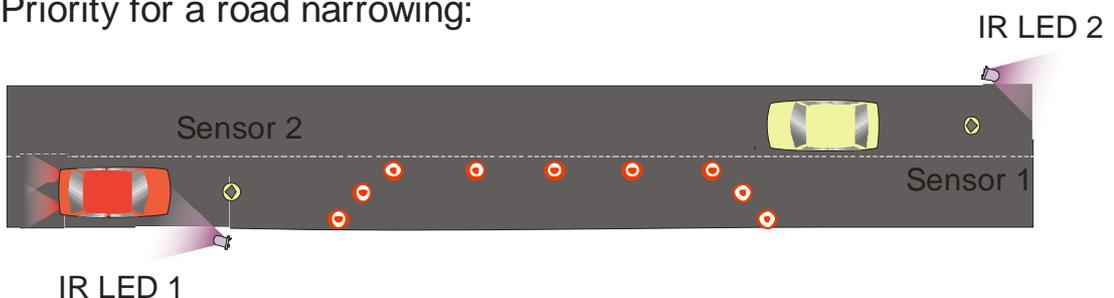
T-junction priority right turn traffic:



Priority T-junction right and left turning traffic:



Priority for a road narrowing:



The road narrowing:

Two modules are required for the narrowing of the road. We recommend Hall sensors as sensors. When you use IR detection at the rear of the vehicles, it is important to note that the distance between IR LED 1 and sensor 1 (and IR LED 2 and sensor 2) is small. With long vehicles that have to accelerate, it can take just a few seconds before the opposite direction is stopped, during which time an oncoming vehicle can drive into the roadside with a collision as a result.

The traffic light decoder is recommended for a higher level of security or long road restrictions! This also has the option of connecting traffic lights.

More information and updates: www.dccar.nl or



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<http://www.wiki.dc-car.de/>