

# Glossary H

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## Hall effect

This a transistor type that is affected by a magnetic field placed in close proximity  
See MERG TBs A7/2/ 3/ 4 merg members only

## Handset

Is a means of control in your hand.



## Handshaking

In information technology, telecommunications, and related fields, handshaking is an automated process of negotiation that dynamically sets parameters of a communications channel established between two entities before normal communication over the channel begins. It follows the physical establishment of the channel and precedes normal information transfer.

## HASL

### [Hot Air Solder Leveling](#)

HASL = hot air solder levelling - the bare copper of the etched PCB would soon oxidise and refuse to take solder, so a thin layer of "something" is added to make the shelf life longer. The standard HASL provided by Chinese manufacturers is leaded solder. More expensive options are lead free solder, organic solderable varnish stuff, nickel, or gold flash.

## Header plug or socket

Are plug & sockets primarily for use on PCB boards to make connections to and from the board



## Heat sink

Waste heat is produced in transistors due to the current flowing through them. Heat sinks are needed for power transistors because they pass large currents. If you find that a transistor is becoming too hot to touch it certainly needs a heat sink! The heat sink helps to dissipate (remove) the heat by transferring it to the surrounding air.



<http://www.kpsec.freeuk.com/components/heatsink.htm>

## Hector

This is a track detector ([ToTi](#)) using an optical system to detect the location of a train. Merg kit (for members only)

## High

This what we call greater than the base voltage or ground e.g. so high is 5v ~ 4.4volts above 0

## H0

Scale and gauge common in America, Asia and Europe but excluding UK. Scale 1:87, gauge 16.5 mm.

## HYPOTRAC

This a high voltage track detector system for 2 rail Model railway track , see TB T9/2 merg members only

# Hysteresis loop

Hysteresis is wellknown in ferromagnetic materials. When an external magnetic field is applied to a ferromagnet, the ferromagnet absorbs some of the external field. Even when the external field is removed, the magnet will retain some field: it has become magnetized.

[W Hysteresis](#)

The term is also used to refer to one of the display modules often to be seen on the [MERG exhibition stand](#). This is because the track layout on the module resembles the graph of a [hysteresis loop](#).

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