

Hall Effect Module

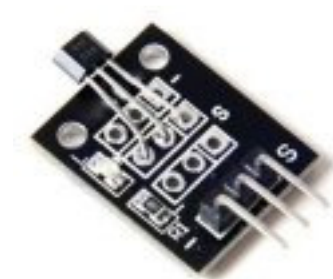
By using a premade hall module from Ebay (5 for AU\$3.20 delivered...plus GST now-a-day) and adding a single transistor inverter with a voltage divider output, we have hall effect operating the CDI in the correct manner. (switching on the internal SCR at fire time) This inverter board also changes the hall signal into a pulse so if the engine stops right on the sensor, only one short pulse ever goes to the CDI trigger.

Construction notes go into how to easily make this "inverter" board.

For the module below, look on Ebay for KY-003 Hall Effect module.

Description of the unit as seen on Ebay says it is for 5V dc operation. Now most hall effect switches will operate up to 30v or more and this one proves to be no exception.

Also one can see on the board shown below, an LED and an smd (surface mount) resistor. This resistor is shown as being 680 ohm so operation from 12V dc will give LED current in the range of 15mA which is normally ok. If you are worried about it, then you can remove the resistor and solder in say an smd 1k5 or similar. Purpose of the LED is for static timing.



What if I prefer Points

Yes, thought about this as well.

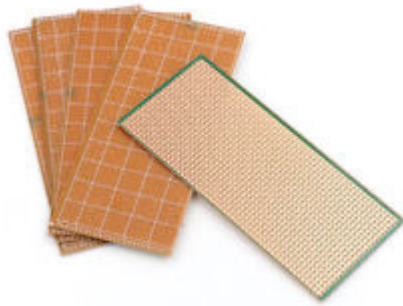
By the addition of an extra transistor stage to the previous single transistor inverter, it is also possible to run the CDI from conventional points and no capacitor on the points is necessary. By conventional, I mean the points have the mounting body connected to negative of the supply voltage (engine frame) and the CDI will fire when the points open.

Construction notes also cover this type of board.

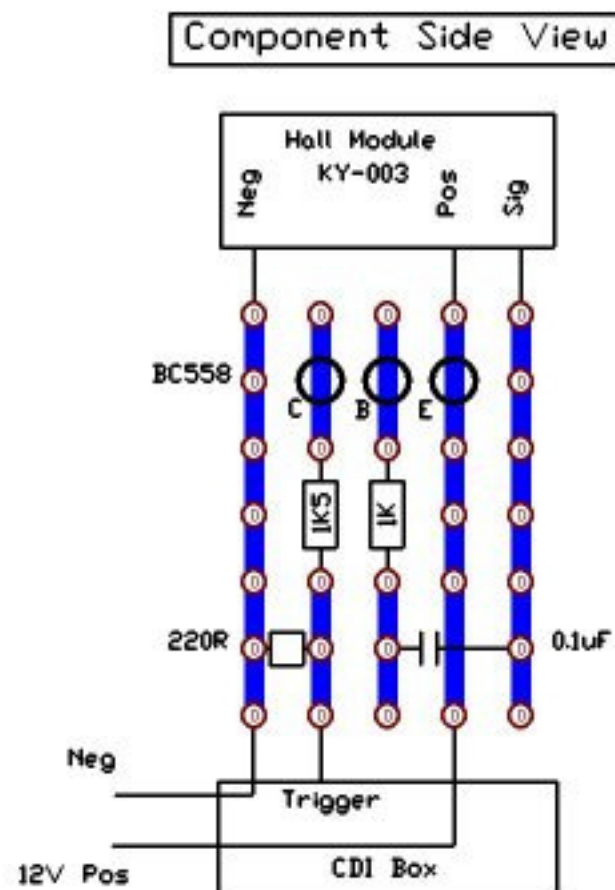
Construction of Hall Effect module add on inverter board

To keep things simple, the boards are made from veroboard available on Ebay.

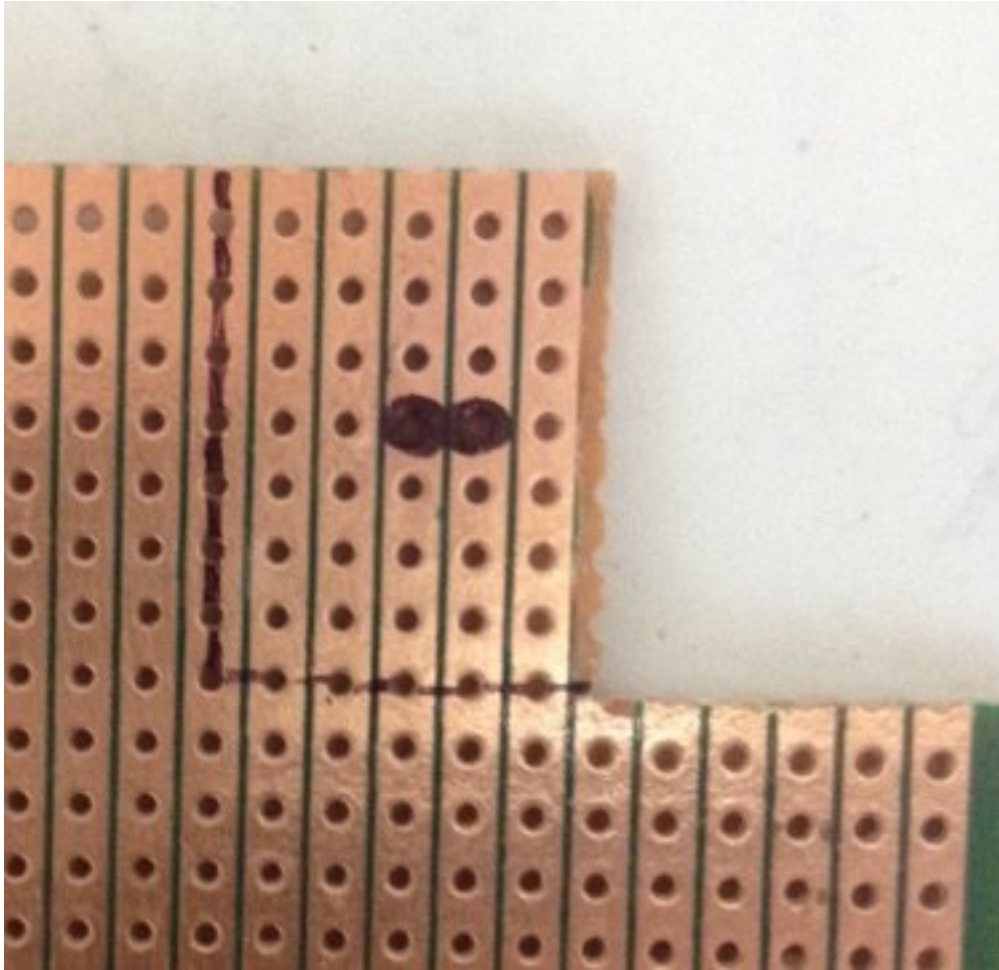
Look on Ebay for [5Pcs 6.5x14.5cm Stripboard Veroboard](#) ... usually about Au\$4.00 delivered



Layout of the design top viewHall Effect inverter

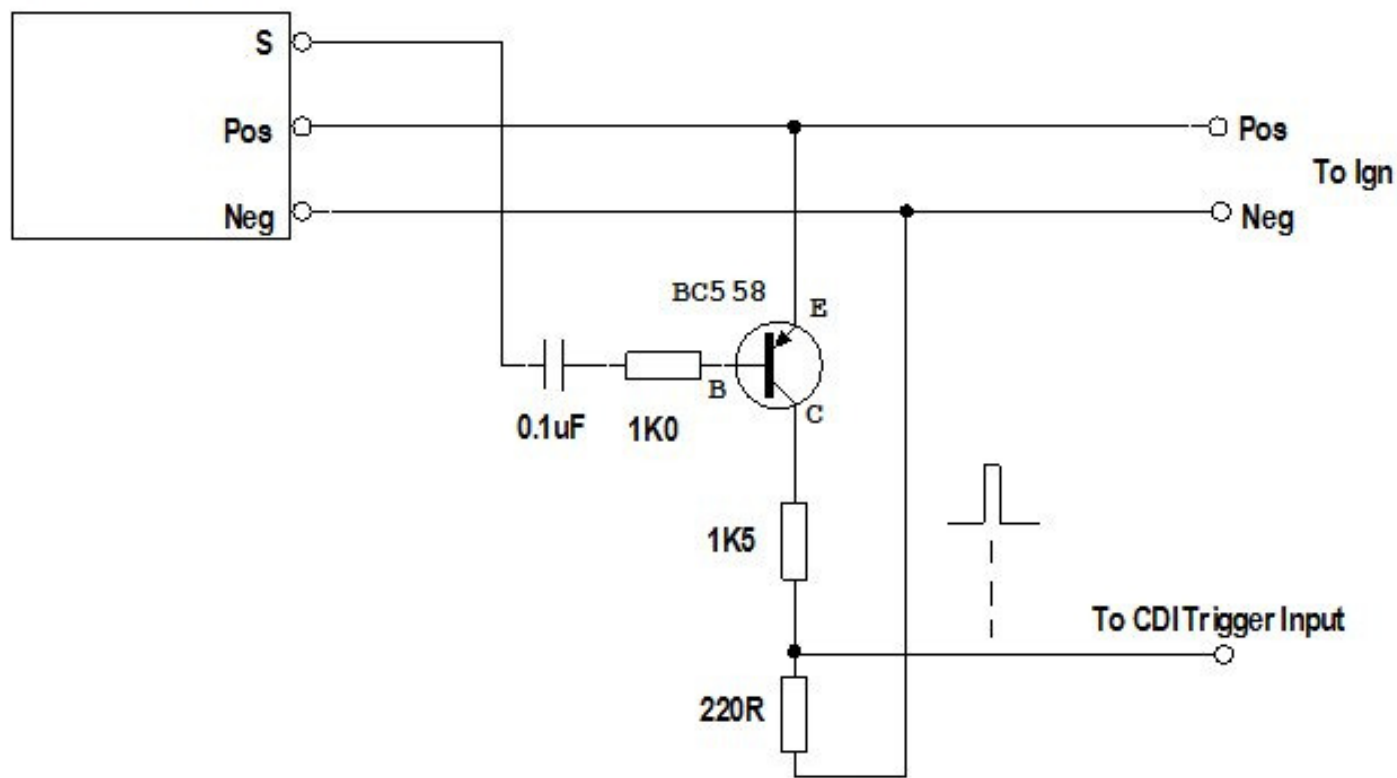


Bottom view of Hall inverter veroboardmarking out. Black lines are cut off points and black dots are "remove by hand with a 3mm drill bit"



Circuit diagram

Hall Effect Module



Dots shown where wiring joins