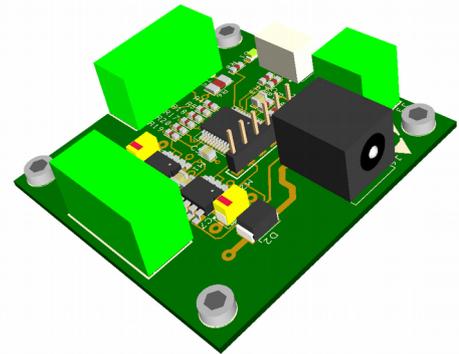# Hanchett Electronics

Serial Stepper Motor Driver   **HAN-004**

Description

The Hanchett HAN-004 Serial Controlled Unipolar Stepper Motor Driver is designed to provide a half-step forward and reverse drive to a 5V unipolar stepper motor. The driver is supplied as an assembled and tested PCB.

Applications

Lens/Filter/Mirror movements
Small translation stages

Features

Home and Park Flags
Single step (half step) and counted step moves
TTL serial interface for microcontrollers or USB UART
9600 Baud serial interface with human readable commands
Screw Terminals
2.1mm DC socket and screw connections for power input

Specification

Supply Voltage	4.5V to 5V
Max Stepper Current	1A per phase (2A total)
Max single step dwell	2.5sec limited by hardware timeout
Serial Interface	5V TTL 2 wire RX/TX
Data Format	9600buad 8data bits 1 stop bit no parity, no flow control
Terminating	Carriage Return + Line Feed (0x0D+0x0A)
Operating Temperature	5º to 45ºC
Storage Temperature	-45º to 85ºC
Regulatory Requirements	PCB, components and solder are RoSH compliant, i.e. PB Free.

Command Syntax

H<CR><LF>	Home mechanism, move backwards until flag reached: returns ! if not ok
P<CR><LF>	Park mechanism, move forward till flag reached: returns ! if not ok
S[±][n]<CR><LF>	Move n 'steps' in half steps
I<CR><LF>	Set incremental mode (times out after 2.5 sec of no movement)
N<CR><LF>	Steps one half step in forward direction
E<CR><LF>	End step mode
?<CR><LF>	Returns position in decimal and flags as a packed byte [nnnnnn][f]<CR><LF>
V=nnn<CR><LF>	Sets max speed, where nnn is a number between 1 and 30 1: fastest, 30: slowest
B<CR><LF>	Drives the motor forwards and then back 200 steps
/<CR><LF>	Prints this syntax info.

Note: Home/Park Step limit default setting 768 steps, i.e. if flag not activated after 768 steps firmware reports a stall. This may be changed on request at order time.