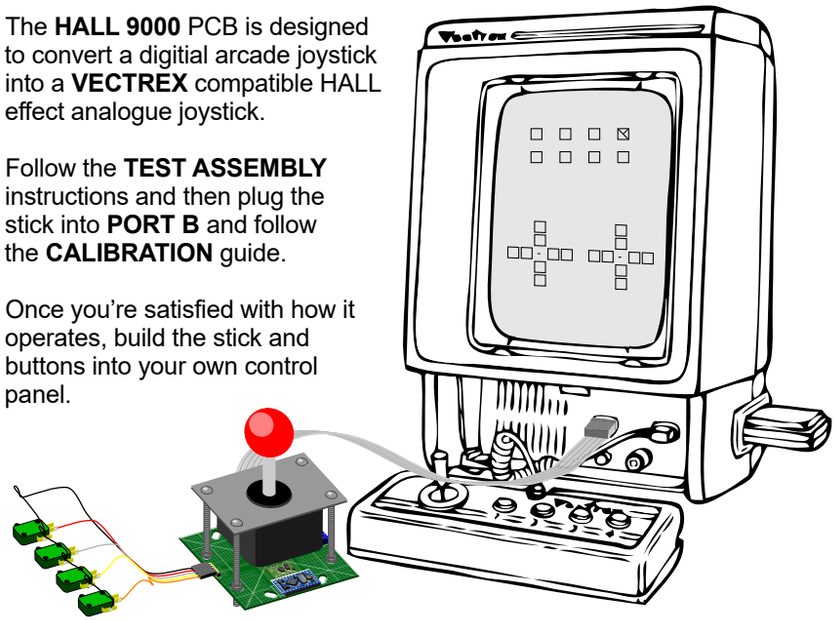
VECTREX HALL JOYSTICK SETUP

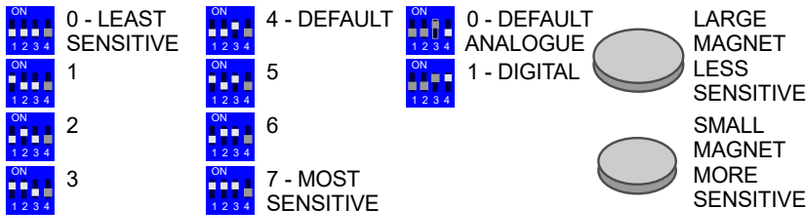
The **HALL 9000** PCB is designed to convert a digitial arcade joystick into a **VECTREX** compatible HALL effect analogue joystick.

Follow the **TEST ASSEMBLY** instructions and then plug the stick into **PORT B** and follow the **CALIBRATION** guide.

Once you're satisfied with how it operates, build the stick and buttons into your own control panel.



CALIBRATION



Use **Test Cart** and select the joysticks calibration page. Start with the **DEFAULT** setting and adjust the sensitivity to best match your hardware. Adjust the PCB position to centre the stick. To fine tune the centre position, power on the stick or hit the **Arduino** reset button whilst pressing all 4 buttons for 5 seconds. The stick will **ZERO** and save the offset values.

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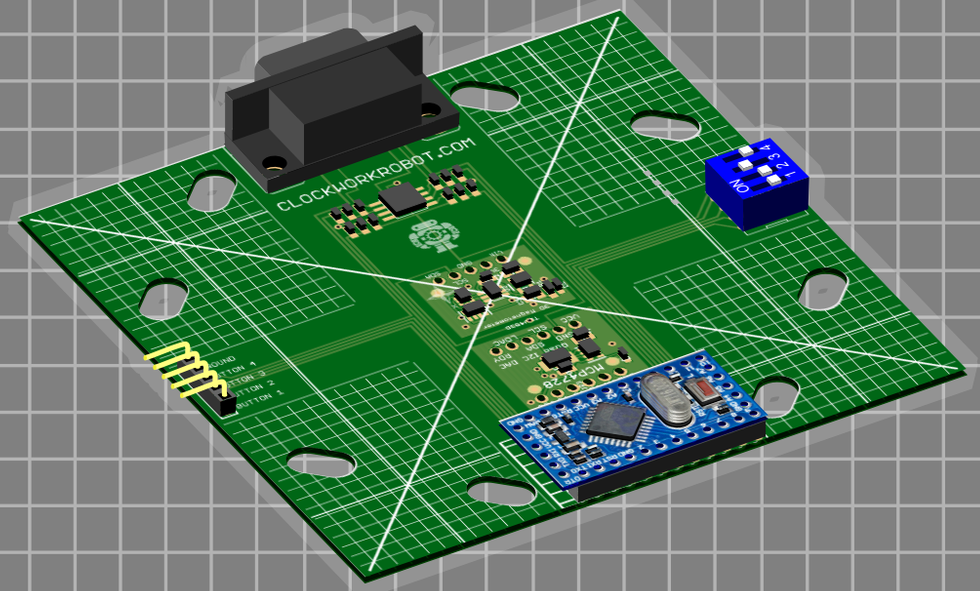
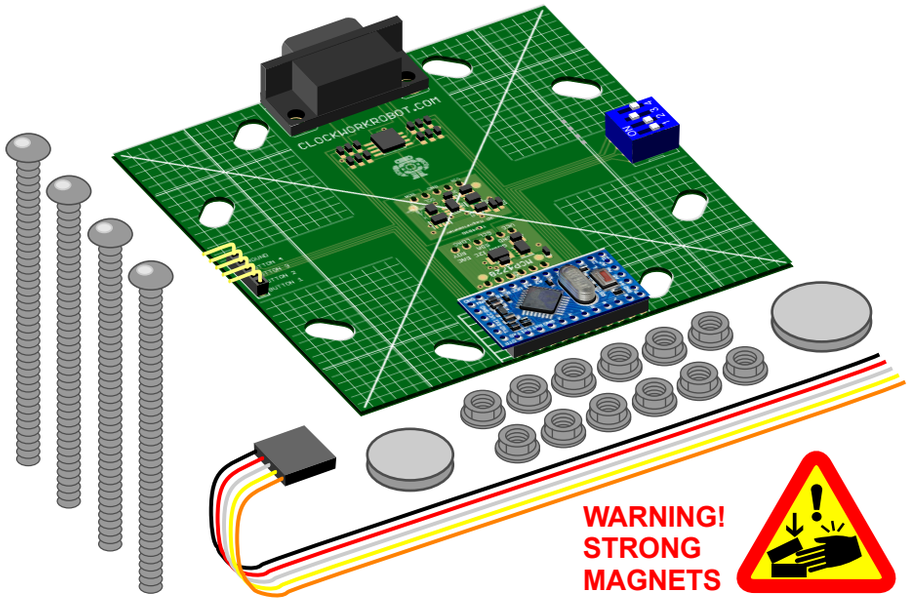
VECTREX

PERIPHERAL



HALL JOYSTICK BOARD

KIT PARTS

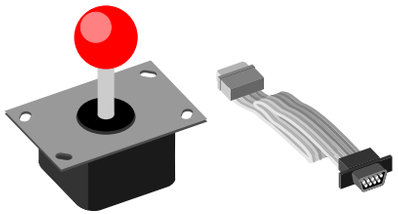


1 x HALL 9000 PCB
1 x wire harness
4 x M4 60mm bolt

1 x 16 mm x 2 mm magnet
1 x 20 mm x 2 mm magnet
12 x M4 nut

YOU ALSO NEED

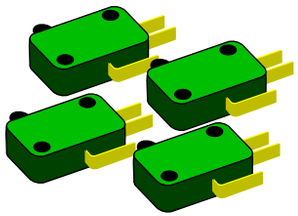
You will also need
Joystick, Sanwa or clone recommended
Vectrex or Sega joystick extension cable
Double sided tape or glue
Screwdriver and pliers or spanner



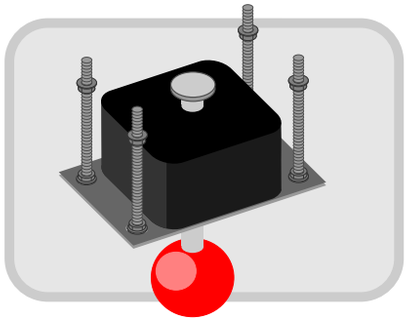
TEST ASSEMBLY

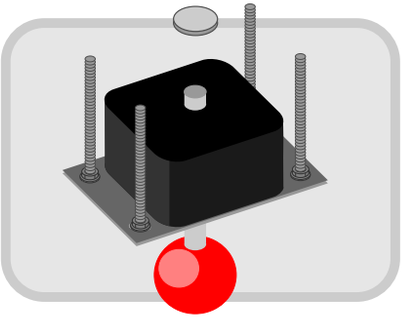
STEP 1
A test assembly is recommended before building the stick into a control panel and box.

Disassemble your joystick and remove the switches.
Reassemble the joystick.



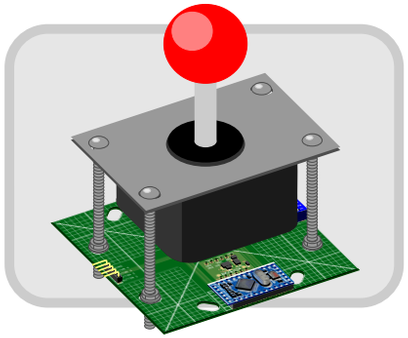
STEP 2
Attach the 4 bolts to the joystick with 4 of the provided nuts. If the holes on the PCB don't match those on the joystick, you can safely drill new holes in the PCB as long as they fall within the grid marks.

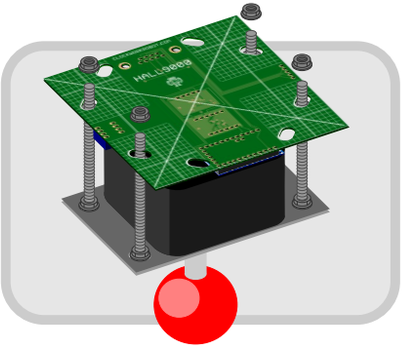




STEP 3
Attach the magnet to the base of the joystick. Use double sided tape or glue in the final build but for now just use magnetism. Make sure it is PRECISELY in the middle.

STEP 4
Use the rest of the bolts to mount the PCB with about a 4mm gap between the board and the magnet.





STEP 5
Attach a Joystick extension cable to the 9 pin D connector and plug the stick into Port B for **CALIBRATION**.

TROUBLE SHOOTING

Controls are reversed
Flip the magnet the other way round

Signal deflects too little or too much
Refer to **CALIBRATION** details

Signal deflection reverses as joystick moves to most extreme position
Use a wider magnet or a joystick with a smaller throw

Signal revolves like a clock hand if the joystick is turned.
Check your magnet isn't off centre