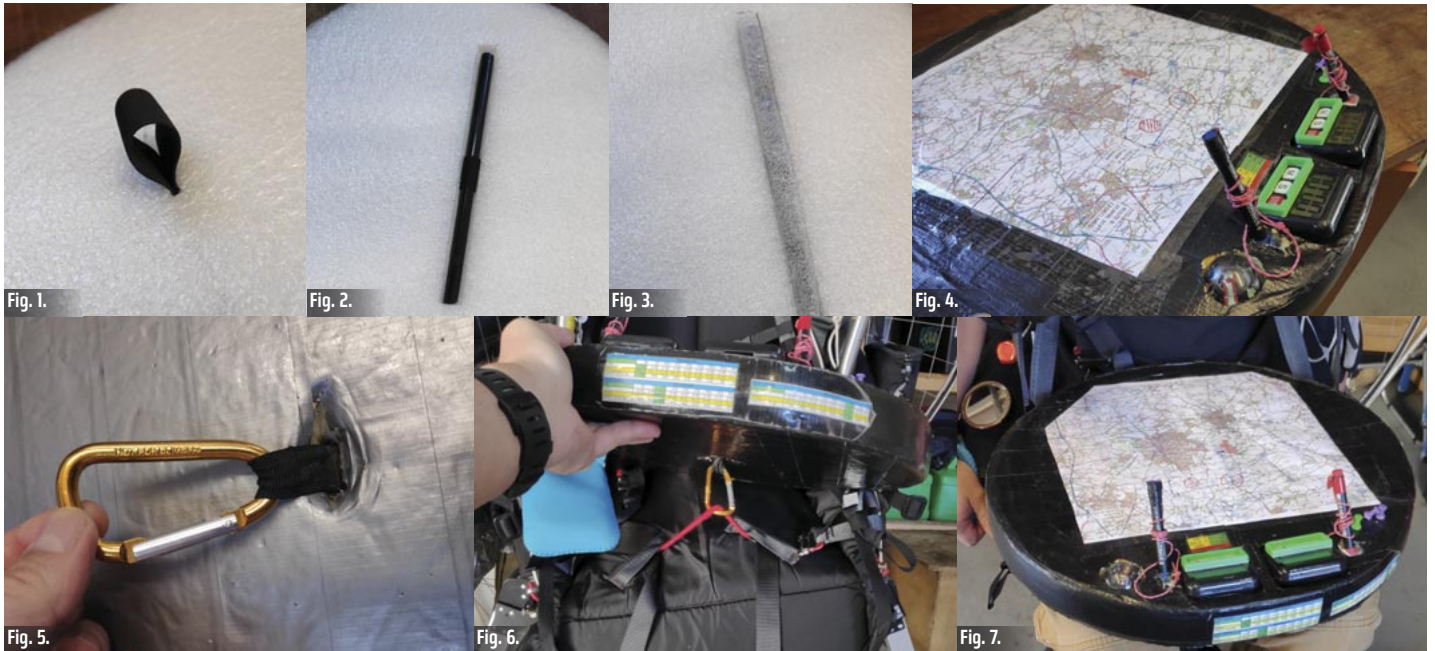


# How to make a PPG map board

PAUL MARTIN GOES LOCKDOWN BLUE PETER

For anyone wanting to utilise a paper map while flying a paramotor, a map board is essential. A good one provides a flat, stable surface that allows the map to be attached, and is able to turn to orientate the map to the direction of travel.



## Materials needed

- 50mm thick disc of Celotex or similar (roughly 40 - 45cm in diameter). Using hard foam provides a rigid surface and allows you to stick pins into the board
- Small carabiner for attaching to your seat
- Strong round elastic (6 or 8mm shock cord is ideal)
- Short length of webbing or strong cord
- Piece of dowel or old fibreglass tent pole, or similar, to strengthen the board and prevent the attachment from pulling through
- Gaffer tape to cover – optional but advised.

## Method

Cut out a disc of foam to a size that will comfortably fit between the arms of your motor frame. Ideally you want to fit an A3 map with the corners cut off onto the board. Any larger than this can get cumbersome and difficult to use.

Mark the centre and cut out a slot to be able to insert the strengthening bar. This needs to be a nice tight fit and allow the bar to be sunk by around 1 - 2 cm, allowing the piece of foam you've just cut out to be replaced to cover the strengthening bar, and let you place pins into the board.

Next, make a loop using the webbing, which will go over the strengthening bar and through the bottom of the board, allowing you to attach the carabiner. The loop needs to be large enough to go over the strengthening bar and poke through the bottom of the board, so around 3cm. It's best to sew the loop ends to make it secure.

Putting the strengthening bar through the loop ensures that the webbing attachment point doesn't pull through when pulled hard. Make a slot through the centre of the board just large enough to allow the webbing loop to be pushed through (Fig. 1).

Once you've got the slot and holes, cut and dry-fitted the bar and loop (Fig. 2), glue in place and cover the bar with the foam you cut out (or a new piece) to give a level top to the board (Fig. 3).

The next step is to cover the board. This protects it, and provides a suitable surface to tape a map to and remove it without damaging the board. I use gaffer tape for this; I've found it sticks better if the board is first primed with spray contact adhesive, but this isn't essential.

Once you've got the basic map board, you can then customise it to your requirements and make provision to attach items such as a stopwatch or pens (Fig. 4).

## Attachment

The map board is usually attached to your seat between your legs. A small carabiner (Fig. 5) attaches to a piece of elastic (around 6-8mm dia) which is attached to the leg straps (Fig. 6). This provides a secure attachment but allows for some stretch, which is important when running.

The fixing needs to be tight enough to prevent the map board from dangling down your legs too far; ideally it should always be tight enough to stay above your knees, otherwise it makes it difficult to run. It may be worth doing a hang test with the map board to ensure it works before taking to the air.

## Attaching the map

When attaching the map, it's best to use tape on all edges and ensure that all are stuck down well. It's important to prevent the wind getting underneath, or you'll quickly find your map has become confetti having left your board and gone through the prop.

The map board should sit comfortably on your lap. It should be tight enough that you can move your legs but will stay down flat when flying at 70+ km/h (Fig. 7).

## Taking off

As with anything new, it may feel a little awkward taking off with a large round disc attached between your legs, but after a few take-offs it will become natural. Focus on your take-off and not the map board. Once in the air sort yourself out, get comfortable and locate yourself on the map. Orient it to the direction of travel and off you go.

## Landing

As with the take-off, concentrate on your landing and forget about the map board. If you've got the elastic the right length the board should stay above your knees and not hinder landing. If it does drop below your knees, keep focused on your landing – the elastic should provide enough stretch to allow you to run. After landing, adjust the fitting if needed.

As with anything, practice makes perfect and taking off with it will become second nature.

Now start exploring and test your navigation – I hope to see you at the next competition. Good luck!

illustrations (opposite page). Photos: Paul Martin

Fig. 1. Loop at bottom of board

Fig. 2. Rod inserted

Fig. 3. Rod covered with foam

Fig. 4. Customise to suit your needs

Fig. 5. Carabiner attachment at bottom of map board ...

Fig. 6. Connects to elastic attached to the seat straps

Fig. 7. The board should sit comfortably, yet tight enough to remain flat when flying

