

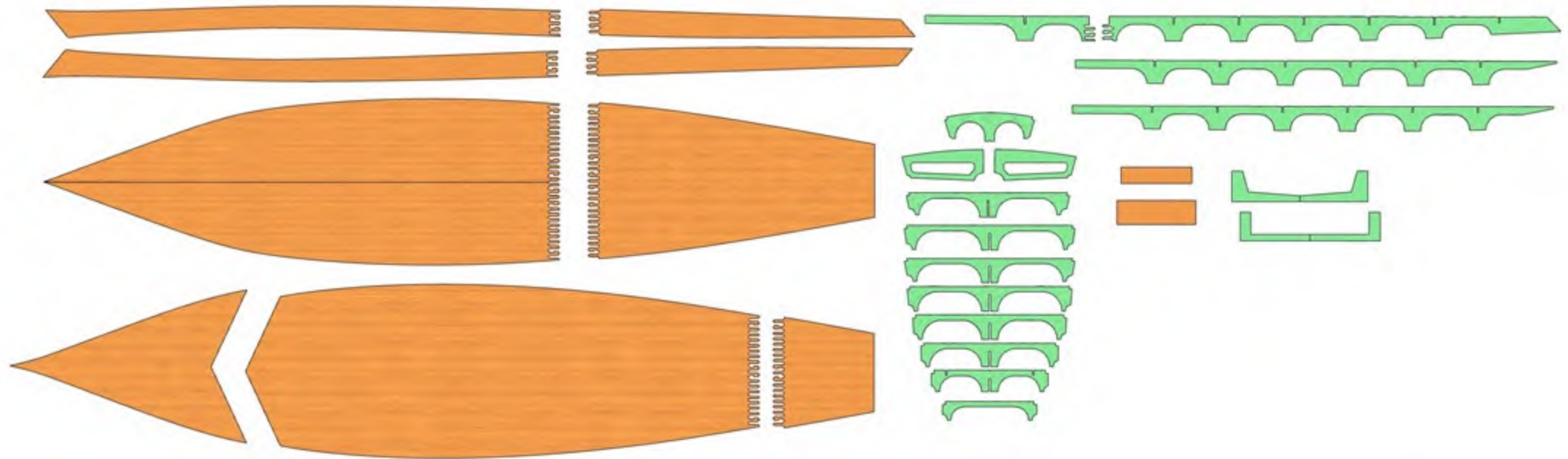
Building Northern Light Paddleboards

An overview of the steps involved in building your own paddleboard using a combination of both the egg crate and stitch & glue building techniques.



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OTTO VALLINGA YACHT DESIGN

The plywood parts of your kit: 4 pieces for the two hull sides, 3 pieces to make up the hull bottom, 3 sections to form the deck, 4 pieces that will make up the three longitudinal frames, 11 parts for the transverse framing, two flat rectangles one for the transom and one to add extra support for the fin, and finally the 2 pieces that will help align and shape the bottom.





Kits are pre-cut using a CNC controlled router to ensure the required degree of accuracy. Parts that need to be joined to obtain the length required have puzzle joints cut in the mating ends to align the pieces.

Unlike the rest of our designs paddleboards do not offer builders the opportunity to build from scratch using only a plan set. Due to the construction method they are available only as kits, with a building manual to guide you through the process.



The building process begins with joining the bottom panels, (longer decks will also need to be joined) this is done by connecting the parts using the puzzle joints, applying epoxy to the joint then covering it with a layer of fiberglass cloth set in epoxy. A board is clamped over the joint while the epoxy cures to ensure a smooth flat joint.



Next the longitudinal portions of the structure that require it are joined, using the same techniques. The edge of the plywood table and the puzzle style joints help ensure accurate alignment.



Once the parts are ready, the structure is assembled; the egg crate portion of the build. You can see the simple table used for building.

Building the structure upside down the table ensures that the surface of the board where you will stand to paddle is flat.



The intersections of the parts are joined with epoxy fillets. Note that the table is covered with plastic to prevent gluing the structure to the table.



Once the glue joining the structure has cured the forms that control the bottom shape are fastened to either end of the table, the hull bottom is placed into the forms and the structure set in place.



The structure is stitched to the hull, the bottom and sides as well as any other pieces of structure such as the deck support and bulkhead.



When the structure is stitched in place it is permanently fastened using fillets of thickened epoxy. The cut outs prevent moisture being trapped if any gets inside, they also make the board lighter.



With filleting complete, the interior is saturated with epoxy, the seam in the forward end of the bottom has a strip of glass applied, shear clamps are installed. The seam allows the forward end of the hull to form a slight V shape.



Installation of the deck; the structure and sheer clamps have thickened epoxy applied to glue the deck to the hull and structure. Edges of the deck are held to the hull and structure using tape with weight in areas away from the edges.



Once the deck is installed, deck and hull need to be sheathed with glass cloth set in epoxy. This provides; in addition to water tightness, both strength and abrasion resistance.



When the deck is to be sheathed you are at the point in the construction process when it is simple to personalize your board. The process used in these pictures to add patterned fabric under the sheathing is very simple. The cloth is fitted, the fabric trimmed as desired then placed, wet out, and covered with glass sheathing. This is not the only option, your board, your imagination, decorate as you choose. The cloth from the deck drapes a couple inches over the side onto the hull, this reinforces the hull/deck joint as well as helping to protect the deck edge from damage.



Next; sand the board, add the skeg. When the skeg is added it must be centred on and perpendicular to the bottom as well as aligned with the centreline fore and aft.



Part of finishing the board, is to ensure that you don't slip off every time you want to use it, here non-skid is being added in the taped off area. Hull vent is visible in the v formed by the step in the deck.



Tie downs can be added to hold gear, these are easy to install, they are designed to be glued to the deck using epoxy provided with the fittings. The same is true for the carrying handle, finished skeg is visible under the board.

While these slides cover the process of building a paddleboard, of necessity it shows the process only in general terms.

