

HOW TO MAKE YOUR OWN ***SURFBOARD***

stoke - *adj slang*

condition of being amped,
wound up or just full of
enthusiasm.

Example: "*I'm stoked - I just
finished making my
own surfboard!*"



A beginners simple guide to building
your own Surfboard

HOW TO MAKE YOUR OWN *SURFBOARD*



INTRODUCTION

Your own custom surfboard. The ultimate for any grom. Artwork, design and construction... all by you. I'm not going to lie, it's quite a process, but not so difficult that it can't be done in your own garage. Using a few common tools that you can either borrow from your grandfather's workshop or inexpensively acquire from the local hardware shop, you can have your own custom surfboard in less than a week.

The following will guide you step by step through the board-making process. It will steer you away from some of the common mistakes. It will ultimately lead to never having to purchase another surfboard again.

INTRODUCTION

CHAPTER 1 DESIGN

CHAPTER 2 TOOLS & EQUIPMENT

CHAPTER 3 SHAPING

CHAPTER 4 GRAPHICS & ARTWORK

CHAPTER 5 GLASSING

CHAPTER 6 FINS & LEASH PLUS

CHAPTER 7 FINISHING

CHAPTER 8 FINISHED BOARDS



CHAPTER 1 DESIGN

First things first - Figure out what you want.

Longboard



Shortboard



Fishboard



If you are a first timer, I would recommend a longboard or a fish. Shortboards have more critical design features and can be poor performers if you don't get them right. A longboard or fish are inherently simpler and will ride well even if there are some minor faults in the design or construction.

A longboard will cost more in materials, so if cost is an issue then go for a fish board. If you are new to surfing altogether, a fish board can be great for learning.

The next decision is to figure out the dimensions. This gets a little technical, but it's worth carefully reading this. You need to get the dimensions right for your personal size, weight, surfing style and likely surf conditions at your local break. Otherwise you are not customising the board for yourself – you are guessing. If it all get's too difficult, copy a board that you've surfed before and liked.

Fundamentals to design:

A wide & long board, suits a big person.

A narrow & short board, suits a small person.

If your local break is small and slow, you need to reduce the rocker and add more width and length to compensate.

If you local break is fast and hollow, you need to increase the rocker and trim back on width and length to compensate.

There are other finer details regarding fins and rails which will be covered later, but let's not complicate things at this stage.

Whether you go long, short, wide or narrow, the displacement is the critical thing

to get right. The displacement is the volume of the finished board. If the displacement is too little, the board will lack bouyancy for you. If the displacement is too high, the board far too boyant for your weight.

When ordering a blank, you need to know:

Style (longboard, fish or shortboard)

Displacement

Length & width

Rocker type

It would be best if you're able to go into the supplier shop, as you can get the advice of the pros. If not, use the following:

Your Weight		Short Board			
kg's	lb's	Board Thickness	Board Length	Board Width	Approx Displacement
60	132	2 1/4	6'0"	17 1/2	2.6
65	143	2 1/4	6'1"	17 3/4	2.9
70	154	2 1/4	6'2"	18	3.1
75	165	2 1/2	6'3"	18 1/4	3.3
80	176	2 1/2	6'4"	18 1/2	3.5
85	187	2 1/2	6'6"	18 3/4	3.7
90	198	2 3/4	6'8"	19	4.0
95	209	2 3/4	6'10"	19 1/4	4.2
100	220	2 3/4	7'0"	19 1/2	4.4

Your Weight		Fish Board			
kg's	lb's	Board Thickness	Board Length	Board Width	Approx Displacement
60	132	2 1/2	5'8"	18 3/4	2.6
65	143	2 1/2	5'9"	19	2.9
70	154	2 1/2	5'10"	19 1/4	3.1
75	165	2 3/4	5'11"	19 1/2	3.3
80	176	2 3/4	6'0"	19 3/4	3.5
85	187	2 3/4	6'2"	20	3.7
90	198	3	6'4"	20 1/4	4.0
95	209	3	6'6"	20 1/2	4.2
100	220	3	6'8"	20 1/2	4.4

Your Weight		Long Board			
kg's	lb's	Board Thickness	Board Length	Board Width	Approx Displacement
60	132	2 1/4	8'4"	21 3/4	3.1
65	143	2 1/2	8'6"	22	3.4
70	154	2 1/2	8'8"	22 1/4	3.6
75	165	2 3/4	8'10"	22 1/2	3.8
80	176	2 3/4	9'2"	22 3/4	4.0
85	187	3	9'6"	23	4.2
90	198	3	9'10"	23 1/4	4.5
95	209	3 1/4	10'2"	23 1/2	4.7
100	220	3 1/4	10'6"	23 3/4	4.9

If you look closely, you'll see that the adjustments to the board thickness, length and width don't much affect the total displacement that matches your weight. Find your weight and use the corresponding dimensions. Tweak them to suit: A little bigger if surfing small slow waves, a little smaller if surfing big hollow waves. If you particularly want a certain length, adjust the width and thickness so that the displacement remains about the same.

One more thing before you are ready to buy a blank is the rocker (curve of the board front to back). The rocker is built into the blank so that you don't have to shape it yourself. Usually, you can choose a blank with large, medium or small rocker.

The larger the rocker (curve), the board will be slower but more manuverable.

The smaller the rocker, the board will be faster but less manuverable.

I recommend medium... don't complicate things.

Once you've got those things figured out, you can order your blank:

The style:	<input type="text"/>
The length:	<input type="text"/>
The width:	<input type="text"/>
The rocker:	<input type="text"/>
The displacement:	<input type="text"/>

In any case, if you can go into the supplier shop and ask advise, ths can be the best thing.



CHAPTER 2 TOOLS, EQUIPMENT & WORK AREA

EQUIPMENT LIST

Tape measure	Optional 1" paddle bit to match
Rubber gloves	optional 1" leash plug and FCS fin
Saw (hacksaw blade)	plug system (if using FCS)
Respirator	2-Qt. mixing containers with cc
Sharpie water based pen	graduations
Cheap scissors	2-10cc syringes (one for cat., one for
Squeegees	wax)
Surform plane	Some kind of stand for shaping (see
Power plane or Block plane	Chapter on Shaping)
Flexible sanding pads	Mixing stick(s)
Sand paper: Grits 40, 80, & 150	Acetone-1 qt. - for polyester clean up.
Wet and dry Sand paper: Grits 400 &	Use 90% alcohol for epoxy clean up.
1000	Cloth (see Glassing section for advice
Cheap 4" natural bristle brushes (4	on cloth weight)
minimum)	Resin 4L or 1 gallon, Filler Resin
Drill (preferably with two handles and	(sandable) & Hardener
variable speed adjustment)	Leash Plug
Razor blades	FCS (or similar) Fin system
1" masking tape	A board blank (obviously!)
	Deck grip (optional)

If you go to a supplier shop, they should help you out with most of the materials and quantities etc. They will also have all the tools, but I say beg, borrow or steal (not literally!). If you have to buy, go to a cheap hardware shop.

WORK AREA

This project is going to create a lot of dust. If you are going to use your garage at home, by a roll of plastic masking sheets and mask out an area about 15' x 10' (5m x 3m). Go floor to ceiling and tape it all round including to the floor to create a room of plastic with a small entrance that can be closed off and sealed. Any dust that escapes will find it's way into everything and there will be a residual smell for months. You'll see in photos later that I've got an opening window at one end

