Va'a Motu Materials List

Hull
Stringer material to be straight grained softwood.
Plywood to be marine grade or the best you can afford.

Sheer stringers
2 ea 25mm x 19mm x 6050mm (1” x 3/4” x 20')

Chine stringers
2 ea 25mm x 19mm x 6000mm (1” x 3/4” x 19' 8”)

Deck stringers
2 ea 19mm x 19mm x 5800mm (3/4” x 3/4” x 19' 4”)

Outer gunwales
2 ea 19mm x 25mm x 6050mm (1” x 3/4” x 20')

Bulkhead perimeter pieces
19mm x 19mm x 14 meters

Wae
1 ea 45mm x 45mm x 700mm (1-3/4” x 1-3/4” x 27-1/2”)
1 ea 45mm x 45mm x 750mm (1-3/4” x 1-3/4” x 29-1/2”)

Rudder and motor mount
1 ea 45mm x 90mm x 1015mm (1-3/4” x 3-1/2” x 40”)
1 ea 45mm x 35mm x 785mm (1-3/4” x 1-1/2” x 31”)

Rudder and Leeboard
Rudder: 25 x 200 x 1100mm [1” x 8” x 43 1/2”]
Leeboard: 25 x 250 x 1200mm [1” x 10” x 47 1/2”]
Make the blanks from edge glued straight grained softwood. Sheathing with fiberglass is optional.

Plywood
All 1220mm x 2440mm (4' x 8')
7 sheets 6mm [1/4”] thickness
(This is enough plywood for the hull, crossbeam sides and the ama center web)
4mm [3/16”] plywood may be used for the hull sides and bulkheads but the deck and hull bottom must be 6mm [1/4”].

Fasteners
20mm [3/4”] and 25mm [1”] annular ring nails. Can be bronze or stainless steel.
Misc stainless steel screws (gunwales etc.)

Crossbeams
Single outrigger with optional safety ama
4 ea 90mm x 9mm x 4200mm (3-1/2” x 3/8” x 13'-10”)
4 ea 70mm x 9mm x 4000mm (2-3/4” x 3/8” x 13'-2”)
+Miscellaneous scrap timber for solid internal blocking

Double outrigger (Trimaran)
8 ea 90mm x 9mm x 5200mm (3-1/2” x 3/8” x 17')

Foam and fiberglass ama
Polystyrene foam, extruded or expanded type
2 ea 300mm x 125mm x 4800mm (12” x 5” x 16')

Epoxy resin
20 liters epoxy resin (resin + hardener) for gluing, filleting, sheathing the hull bottom, the cockpit floor and the ama.
You will need more resin if you sheath the entire hull.
Glue mixture filler.
Filleting filler.
Fairing filler.

Fiberglass cloth
This comes in different widths, so calculate the areas you will sheath.
The ama requires two layers of 200 g/m [6 oz] cloth.
160 g/m [4 oz] cloth can be used on the hull sides and deck. 200 g/m [6oz] is better for the hull bottom.

An excellent source of information on using epoxy resins can be found here:
http://www.westsystem.com/ss/use-guides/

Paint
Every type of paint has been used on plywood hulls. From expensive two part marine paints to acrylic house paint. A good base of undercoat is important.
If your hull is made from pine or Douglas Fir plywood, the entire outside surface should be sheathed in fiberglass or the painted surface will develop tiny hairline cracks.
Tropical hardwood plywoods can be coated with paint only.