



P&O Cruise Ship Iona

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Summary

1:500 Scale Model of P&O Cruises Iona Cruise Ship

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[bambulab](#) [bambulabx1carbon](#)

Updated 30/9/23:

Corrected a problem with the port side of the hull section not slicing correctly.

See Iona S500 V2c file

Also note that since releasing these complex multi part 1:500 ship models I have found that the BL printers are capable of printing these models quite well at a 1:1000 scale on a single plate - see other listings for the 1:1000 versions.

update 8/9/23

New 3mf file uploaded that contains all plates and various improvements to the design including:

1. Larger tolerances in the hull centre section

2. Better Brim settings
3. Some of the most fragile plates thickened up
4. Simplified stl's within the 3mf
5. Most parts now embossed with references to aid the assembly.

Third ship in a series of Seven 1:500 scale Models of P&O Cruise Ships - Iona - for personal use only.

Iona is the largest P&O Cruise Ship currently in service.

Designed for multi colour printing on a Bambu Lab X1C or P1P with 8 Colours (2 x AMS).

NB/ The 3mf files included will only load into Bambu Slicer or Orca Slicer.

Designed using Fusion 360.

Model is approximately 3 build plates long - so needs to be printed in separate sections which are slotted together at deck level, then each deck is bolted together using M4 Cap Head Screws.

(Around 22 M4x16 and 4 M4 x 10)

Printing will take well over 60 hrs in total - in separate plates which average about 2 hrs printing time each - but some of the more complicated plates take in excess of 13 hours to print.

So far three models of the seven have been created, with one other already published on printables - P&O Ventura. Azura could also be published if there is sufficient interest.

For reference here are the filament colours I have been using in order of quantity - with a best guess at Bambu Lab equivalents

eSUN PLA+ Filament 1.75mm, PLA Plus 3D Printer Filament Cold White

eSUN PLA+ Silver

SunLU PLA+ Blue

SunLU PLA Red

1kg 1.75mm PLA 3D printer filament Printer - With coil (Gold Color)

SUNLU 3D Printer Filament PLA+ Plus Grass Green

Aldi Balco Blue 1kg

SunLU PLA Yellow

Bambu Lab Orange

ICE Filaments ICEFIL1PLA104 PLA filament, 1.75mm, 0.75 kg, Barbaric Brown

eSUN PLA BLACK

Bambu Support W - just experimenting with for a few delicate parts

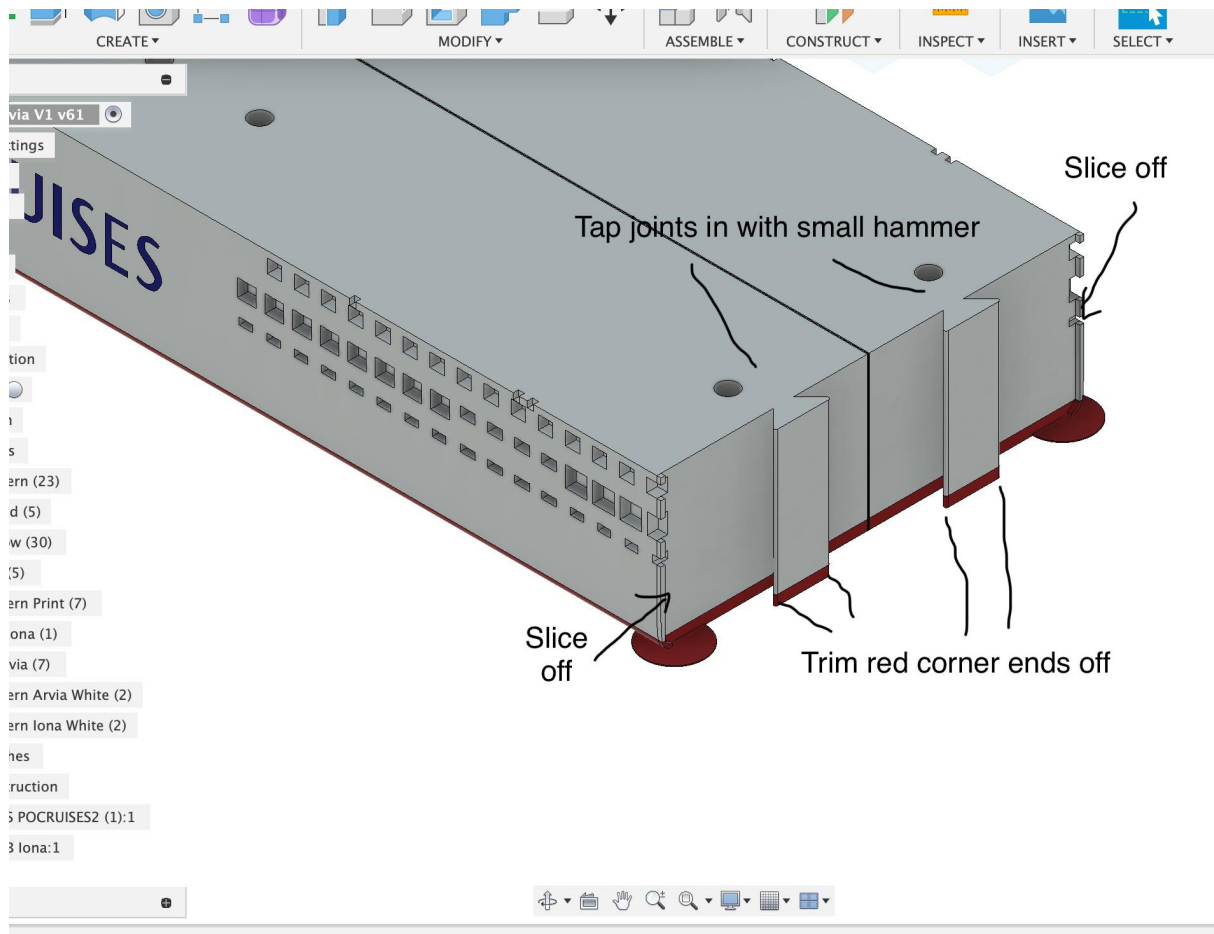
With the quantity of white being about 10x the rest.

My best guess at equivalent Bambu Lab Filaments to these would be:

Bambu Lab PLA Basic Jade White
Bambu Lab PLA Silk Silver
Bambu Lab PLA Basic Blue
Bambu Lab PLA Basic Red
Bambu Lab PLA Basic Bronze
Bambu Lab PLA Basic Green
Bambu Lab PLA Matt Ice Blue
Bambu Lab PLA Basic Yellow
Bambu Lab PLA Basic Orange
Bambu Lab PLA Basic Brown
Bambu Lab PLA Basic Black
Bambu Support W White

Build instructions.

1. Print plates in the order presented. Writing deck numbers onto printed parts can help with organisation. **
2. Recommend textured plate is used for most prints - especially those with only 1 layer in some parts - such as deck 19 Bow. Cool plate however useful for very long thicker prints - such as Hull if being able to pause prints overnight is a requirement. **
3. For the thicker hull sections the dovetail joints are quite tight so a small amount of trimming of the dovetails may be required to get the pieces to slot together.
4. On the stern section of the hull I have included some slight overlaps to stop corners from being round that will need to be trimmed off. **
5. It is recommended that a small hammer is used to gently tap the dovetail joints together - going slowly from side to side - until the sections are flat.
6. Completed decks can then be bolted together using the holes with slots for screw tops.
7. Lifeboats need to be slotted into deck 7 tabs - it may be necessary to slightly widen the slots in the lifeboats with a screwdriver.
8. The canopy on deck 19 also slots into some fairly tight holes - so again these might need to be prised open slightly with a small screwdriver



Model has only been printed once so far, and was re-sliced for this upload.

Further details of the design and built process are available on the Bambu Labs forum AMS section.

Details of this model will also be posted on

1. The Bambu Lab Official Facebook Group
2. The P&O Facebook Group
3. The Ship Models Facebook Group

This is a personal project. I have no connection to P&O Cruises or Carnival Corporation other than being a customer.

This version is released under a CC Non Commercial No Derivatives license due the P&O Cruises branding.

Change History

3/7/23 - Correction to Deck7

19/7/23 - Updates made to build instructions - see **

Added suggestion to write numbers on decks, used on textured build plate and corrected hub to hull.

21/7/23 Added extra less well fitting middle section of hull - that some people may find easier to joint to Bow and Stern parts of hull. -

Also added photo to try and better explain how to get the hardest dovetailed part - the bow part of the hull to slot into the middle part of the hull.

29/7/23 Updated double gaps version due to first layer error.

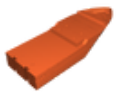
31/7/23 Improved Deck18 Bow - with slightly stronger lamps

9/8/23 Single Untested STL of whole model uploaded, excluding lifeboats.

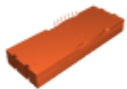
10/8/23 Added Lifeboats STLs - 2 per side - you need to print each side 4 times to get a total of 16

11/8/23 Test STLs temporarily withdrawn pending further refinements.

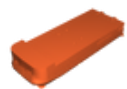
Model files



iona-hull-bow.3mf



iona-hull-mid.3mf



iona-hull-stern.3mf



iona-deck7-v2.3mf



iona-deck8.3mf



iona-deck9.3mf



iona-deck10.3mf



iona-deck11.3mf



iona-deck12.3mf



iona-deck14.3mf



iona-deck15.3mf



iona-deck16.3mf



iona-deck17.3mf



iona-deck18.3mf



iona-deck18s.3mf



iona-deck18c2.3mf



iona-deck19b.3mf



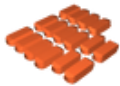
iona-deck19c4.3mf



funnel.3mf



iona-caps.3mf



iona-lifeboats.3mf



iona-hull-mid-double-gaps.3mf



iona-deck18-bow-thicker-lamps.3mf



iona-s500-v2c.3mf

☐ Various improvements and corrections as a result of feedback from Bambu Lab

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