Test Plan

Introduction:

Item*:*

Baby Crib

Version:

1

Date:

15/08/19

Name:

Brynmor John

Assembly/Disassembly:

How was the product assembled?

Easy

Would you change anything to make the item easier to assemble?

Colour code the joints so you could quickly see which tube fits to which tee or elbow

How was the product disassembled?

Very Easy

Would you change anything to make the item easier to disassemble?

Sand the end of the tubes so it take less force to pull them out of the elbow or tee

Dimensional Analysis:

Download the relevant Engineering Drawing from Dropbox. Using a Vernier calliper to measure the 5 dimensions that are labelled with a triangle symbol.

If the tolerance isn't shown on the Engineering Drawing please use this dimension tolerance table:

Tolerance class		Division of basic dimension							
Designation	Description	0.5 (1) up to 3	Over 3 up to 6	Over 6 up to 30	Over 30 up to 120	Over 120 up to 400	Over 400 up to 1000	Over 1000 up to 2000	Over 2000 up to 4000
		Permissible deviations							
f	fine	0.05	0.05	0.1	0.15	0.2	0.3	0.5	-
m	medium	0.1	0.1	0.2	0.3	0.5	0.8	1.2	2
c	coarse	0.2	0.3	0.5	0.8	1.2	2	3	4
v	very coarse	-	0.5	1	1.5	2.5	4	6	8

The tolerance class is determined by the manufacturing method used to make the item.

For example:
Injection moulding is **f** (fine)
Woodwork using hand tools is **v** (very coarse).

Dimension Number	Drawing Dimension	Measured Dimension	Dimension Difference	Pass or Fail
1				
2				
3				
4				
5				

Structural (Static Loading):

The loading must have a minimum factor of safety of 2.0. This is the maximum load that will be applied during use, multiplied by 2.

For Example - 120.8kg (max human weight in kilograms - 90th Percentile)

120.8 x 2 = ***241.6kg load to be applied***

Does the item still work after the loading?

Yes

What changes can be made to improve the Structural test performance?

None

Mechanically:

Is the item strong enough for its intended purpose?

Yes

Would there be a risk in the item breaking during use? How can this be prevented?

No - not unless it is misused

Impact:

Does the item still work after a 1-meter drop test?

Yes

Would you make any changes to improve the drop test performance?

No

Visual inspection:

Major faults: sharp or hazardous parts, significant damage, visible cracks or compromised structure.

Minor faults: chips, minor cracks, surface imperfections, burrs or colour variations.

How many major faults does the item have?

None

How many minor faults does the item have?

None

Would you make any changes to prevent these faults?

No

User perception:

Is it clear what the items intended use is? If not, why not?

Yes - a assembly manual was provided

Is it clear how the item works without the need for instructions? If not, what instructions need to be given?

Yes - a assembly manual was provided

Usability:

Does the item do what it is meant to do? If not, why not?

Yes

What changes would you make to make the item easier in use?

Sand the end of the tubes so it take less force to pull them out of the elbow or tee
Colour code the joints so you could quickly see which tube fits to which tee or elbow

Environment:

In what environment will this item be used?

Indoor - in the dome bedroom of a shelter

Will the item be exposed to prolonged sunlight?

No

Will the item be in contact with water or other liquids?

Possibly

What extremes can occur in this environment? Test these extremes (e.g. simulate max & min temperature, moisture levels). What are the results?

There are no major extremes in this environment

Notes: