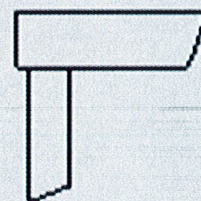
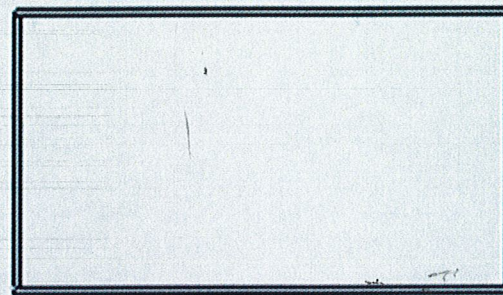
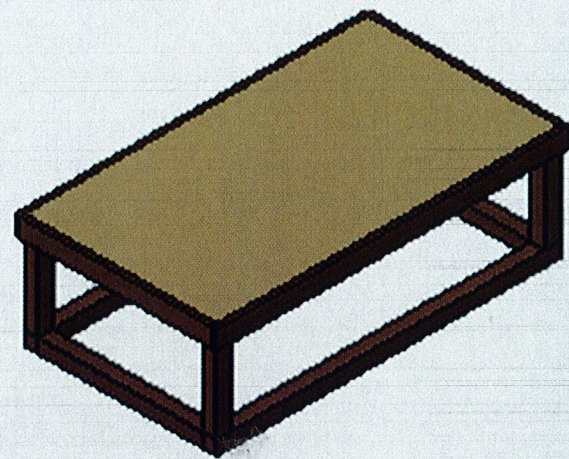
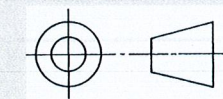
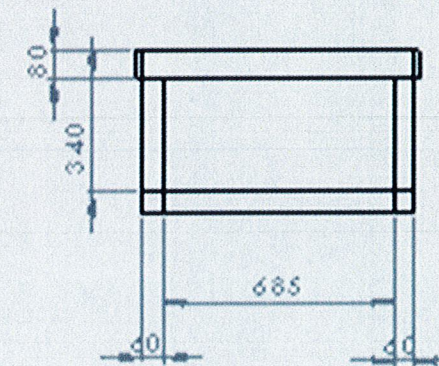
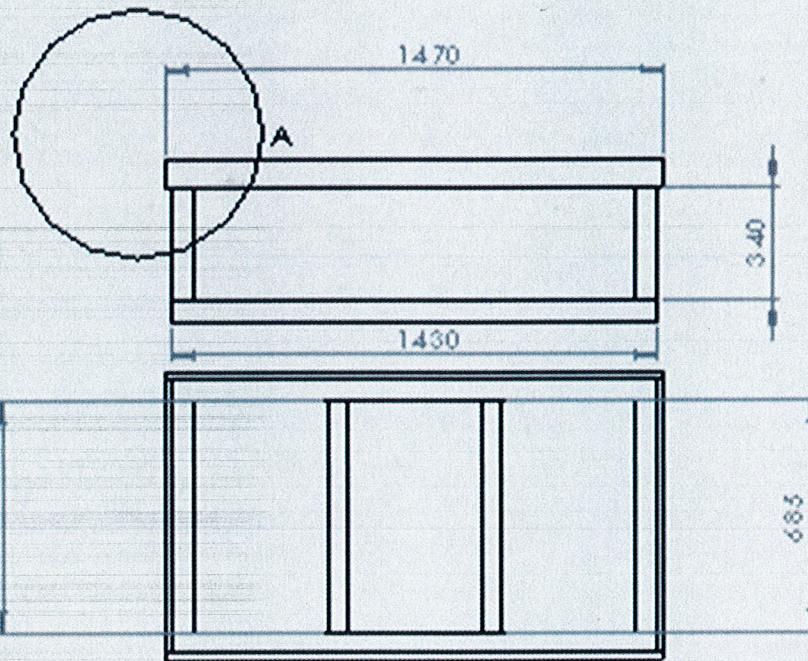


CRITERIA 4

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DETAIL A
SCALE 1 : 10



Orthographic

3rd angle projection

Scale 1:10









Units mm

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PRODUCTION PLAN

Time	Operation Description	Process	Tools required	Materials	Quality Assurance checks	Safety	Comments of changes
½ hour	Cut lengths of Eastern mahogany for the table base.	Measuring timber.	Pencil, Ruler, tri square.	Eastern mahogany x4	Use a Sharp pencil and ensure timber is stable for accurate marking with tri-square and a ruler.		
		Cutting	Bench saw, clamps	Eastern mahogany x4	Use precision and clamps to hold wood in place	Overcoat and safety glasses. Dust Extraction	
1 hour	Preparing Domino joint for the corners	Measuring the slot.	Ruler, pencil, tri square	Eastern mahogany x4	Use a Sharp pencil and ensure timber is stable for accurate marking with tri-square and a ruler.		
		Cutting the Domino.	Festool Domino machine	Eastern mahogany x4	Use precision and clamps to hold wood in place	PPE. Dust Extraction	
2 hour	Prepare Mortise and Tennon joint for the bottom corners.	Measuring the slot	Ruler, pencil, tri square Mortise and Tenon.	Eastern mahogany x4	Use a Sharp pencil and ensure timber is stable for accurate marking with tri-square and a ruler.	PPE	
		Cutting the mortise and tenon.	Tenon saw Bench saw				
½ hour	Complete a dry run of assembling table	Insert domino and Mortise and Tenon joins into place with no glue	Labour	Assembled frame Festool Dominoes	Make sure corners are square. And each edge is flush.		
1 hour	Sanding the individual pieces of timber.	Sanding	Sheet Sander, 120p and 240p sandpaper.	Eastern Mahogany	Use clamps and make sure there is a clear surface so timber can not be scratched underneath.	PPE Dust Extraction	
1 ½ hour	Glue table Frame together	Gluing	PVA, cloth Clamps	Eastern Mahogany frame, Festool Dominoes	Wipe away any excess glue make sure clamps are lined up parallel. Use buffer to protect timber from markings from clamps.		
1 hour	Repair table surface	Gluing	PVA, masking tape clamps	Recycled wood	Wipe away any excess glue use buffers on clamps so the timber isn't damaged.		
½ hour	Sand the finished frame	Sanding	Sand paper 400p Cork block	Eastern Mahogany frame	Consistent work with smooth finish on any difficult areas.		
½ hour	Apply finish	Waxing	Wood wax	Eastern mahogany frame	Thin coats of wax.	Plastic Gloves	

QUALITY MEASURES

PROCESS	MEASURE
Pre-Production	
When Selecting the materials	<ul style="list-style-type: none"> Look for imperfection in the wood such as any holes that may affect the strength of the material. Also look for any colour variations between the Eastern Mahogany. Examine the position of any knots in the material that may affect the work.
Before Marking Materials 	<ul style="list-style-type: none"> Double check all measurements to be sure they are correct. Check for the squareness of the timber.
When Checking equipment	<ul style="list-style-type: none"> Ensure all equipment is sharp. Ensure all power cords are in working order. Only check the best quality equipment I have access to.
Practice joining method Festool Domino and Mortise and tenon.	<ul style="list-style-type: none"> Check the domino set up. Check the width of the cutter, the depth of the plunge, the angle, all screws are tight. Ensure the Mortise and Tenon depth is correct. Check the bed, cutter and handle for any issues.
Production	
When marking materials 	<ul style="list-style-type: none"> Measure the materials twice and cut only once. Use a tri- square to ensure markings are straight Use a pencil for making so they don't show up on the final product and can be easily erased from the timber.
When Cutting 	<ul style="list-style-type: none"> Ensure to cut as accurately as possible to limit any wastage of materials. Use appropriate clamps and squares make sure the cut is square and clean.
When Sanding 	<ul style="list-style-type: none"> Sand with the grain Deal with any difficult surfaces E.g. knots or holes
When Joining 	<ul style="list-style-type: none"> Complete a dry run before the actual assembly. Use minimal amounts of glue or wipe away any excess to make sure there is no stains on the wood after glue dry's. Ensure surfaces are flush to one another once clamped together.
When using equipment 	<ul style="list-style-type: none"> Ensure tools are sharp to produce an accurate finish. Only use the best quality equipment I can get access to.
When applying a finish 	<ul style="list-style-type: none"> Apply thin light coats instead of one big coat.
When Sticking to the deadline 	<ul style="list-style-type: none"> Stick to the production plan as best as I can. Don't cut corners along the way to speed any process up.

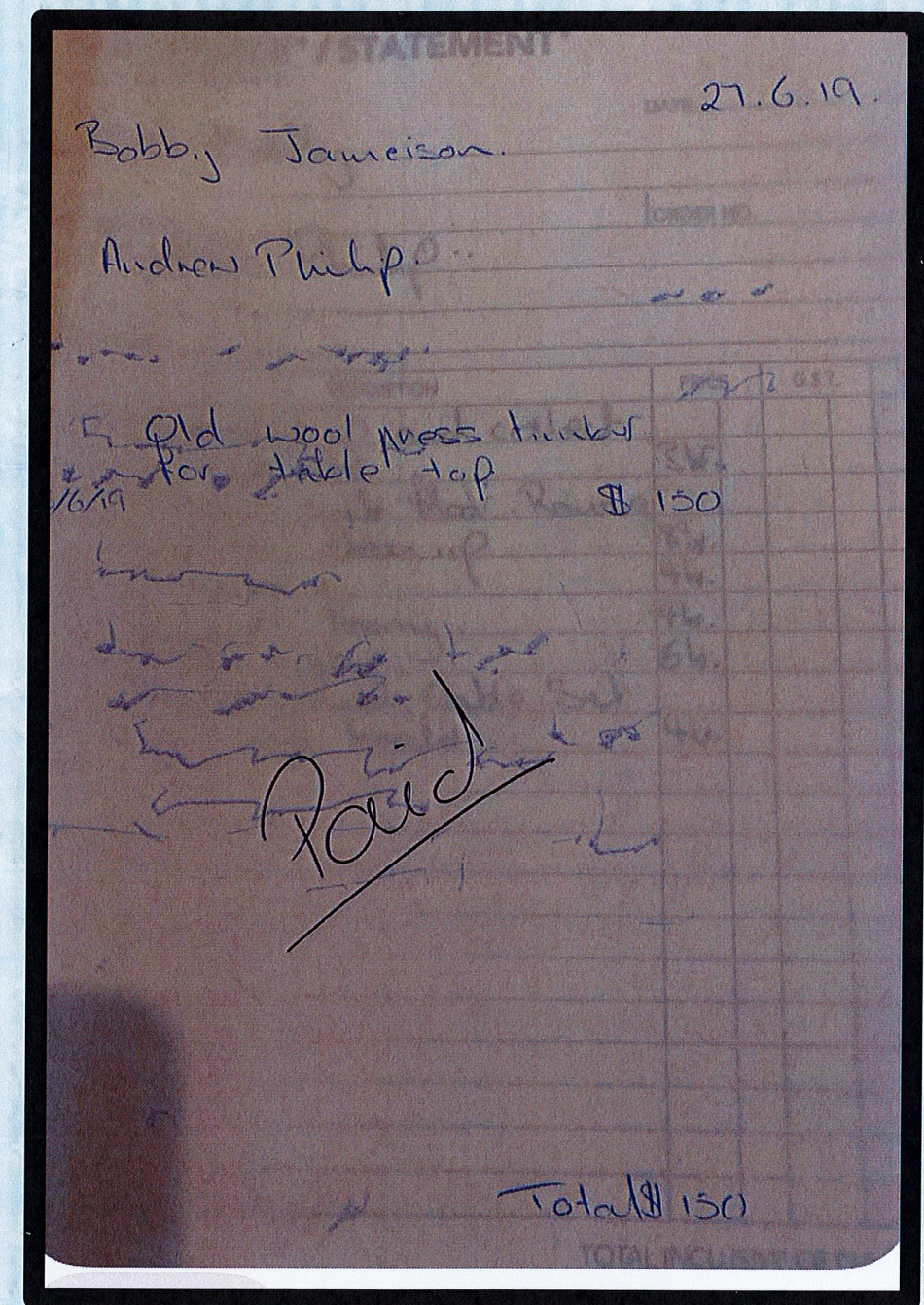
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<https://www.diydoctor.org.uk/projects/cutting-and-sawing-timber.htm>, <http://www.salemartworks.org/wood-shop>, <https://knowledge.axminster.co.uk/applying-wax-quick-guide/>

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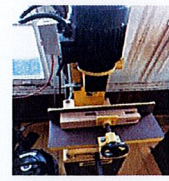



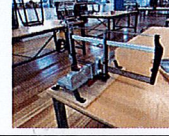
























MATERIAL COSTING

<u>MATERIALS</u>	<u>QUANTITY</u>	<u>COST</u>
Eastern Mahogany		\$250
Wool Press Side panel	X1	\$150
Sugar Soap	X1	\$5
Consumables	X1	\$25
Sandpaper		
Poly wipe		
Screws		
<u>TOTAL COST</u>		= \$430



Receipt for Wool Press Side panel

RISK ASSESSMENT

Equipment	Image of Equipment	Likely injuries	Likelihood of injuries	Severity of injury	Risk control	PPE
Domino Joiner Used to cut my dominoes in Timber for frame		Dust inhalation. Abrasions Cuts Dust and debris in eyes	Medium	high	Ensure loose clothing, hair or rags are kept clear from moving parts when machine is in operation. And PPE is followed. Use Dust extraction.	  
Mortise and Tennon Used to cut Mortise and Tennon joints in Timber for frame		Dust inhalation. Abrasions Cuts Dust and debris in eyes	Low	high	Ensure loose clothing, hair or rags are kept clear from moving parts when machine is in operation. And PPE is followed	  
Bench saw Used to construct tenon joint		Cuts on fingers. Dust inhalation	High	Medium	Ensure loose clothing, hair or rags are kept clear from moving parts when machine is in operation.	 
Router Used to repair recycled table.		Abrasions cuts dust inhalation.	Low	High	Ensure loose clothing, hair or rags are kept clear from moving parts when machine is in operation. Dust extraction.	  
Tenon Saw Used to construct tenon joint		Cuts on fingers. Dust inhalation	High	Medium	Ensure loose clothing, hair or rags are kept clear from moving parts when saw is in operation. Ensure timber is securely fixed so it doesn't move when cutting	 
Sheet sander Used to sand each piece of timber to remove any machine marks.		Dust inhalation	Medium	Low	Ensure Dust extraction is on. Use safety glasses to protect dust from eyes and a mask to protect dust inhalation.	 
Mitre saw 		Cutting of hands	Low	High	Strictly Staff use only. Ensure the operators hands are away from the saw blade.	  
Table saw 		Cutting of hands	Low	High	Strictly Staff use only. Ensure the operators hands are away from the saw blade. Use pushing stick. Dust extraction on.	  
Thicknesser 		Dust inhalation Entanglement Electrocution.	Low	High	Strictly Staff use only. Keep hands away from moving hands and ensure guards are correctly fixed to machine in appropriate positions. Ensure Extraction is on.	  

FINAL IDEA

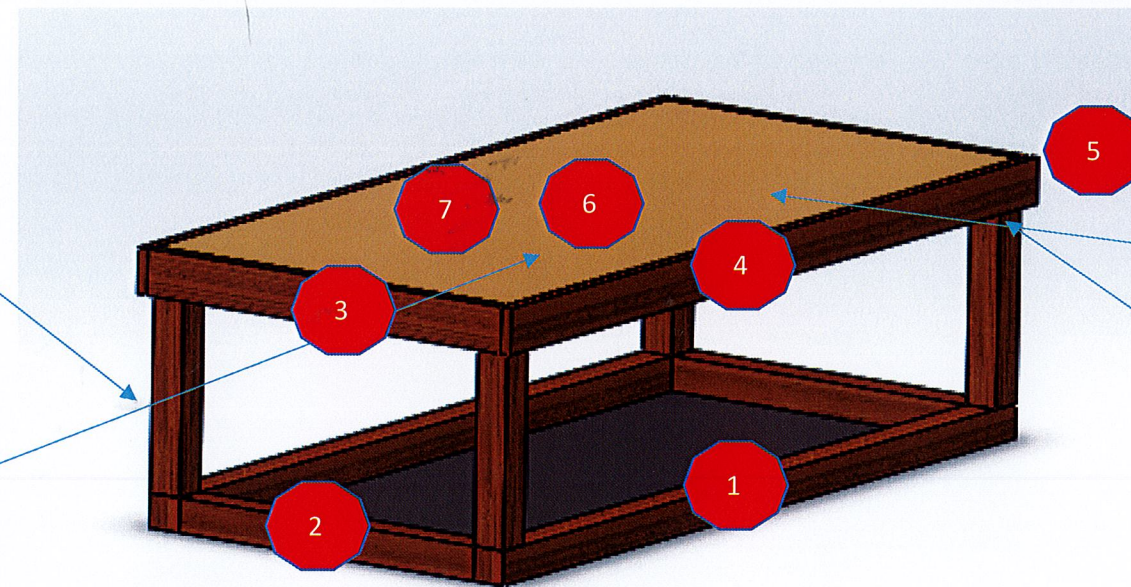
Eastern Mahogany

Eastern Mahogany has been selected for my design as it is a hard wood and therefore durable. It is dark in appearance which makes it a suitable choice for my Coffee table as my user requested that I used a dark material.

Function.

The surface of the coffee table is interchangeable as it sits inside the frame. This means my user can adapt and change which surface is on the table allowing the table to continue to adapt to fashions and trends

Support beams were added to the design to add support to the centre of the table surface as the table had flex when pressure was applied in the centre.



Domino joint

A Domino joint has been used in the table's frame. This is to increase the table's strength and durability when it is to be moved. It also adds an aesthetic and visual appeal as the joint is very structured; it hides the end grain of the wood which can be unattractive once cut. PVA is used to hold the Domino in place.

Mortise and Tennon.

A mortise and Tennon joint has been used in the table's frame. This is to increase the table's strength and durability when it is to be moved. It also adds an aesthetic and visual appeal as the joint is very structured; it hides the end grain of the wood which can be unattractive once cut. PVA is used to hold the Domino in place.

Parts List

1.	Frame rails	X4	Eastern mahogany
2.	Frame Cross beams	X4	Eastern mahogany
3.	Top Cross boarder panels	X2	Eastern mahogany
4.	Top Boarder panels	X2	Eastern mahogany
5.	Domino joins	X10	Festool domino 8cm
6.	Table surface	X1	Recycled Karrie pine.
7.	Support beams (under table surface)	X2	Eastern mahogany