17222835J

CRITERIA 3

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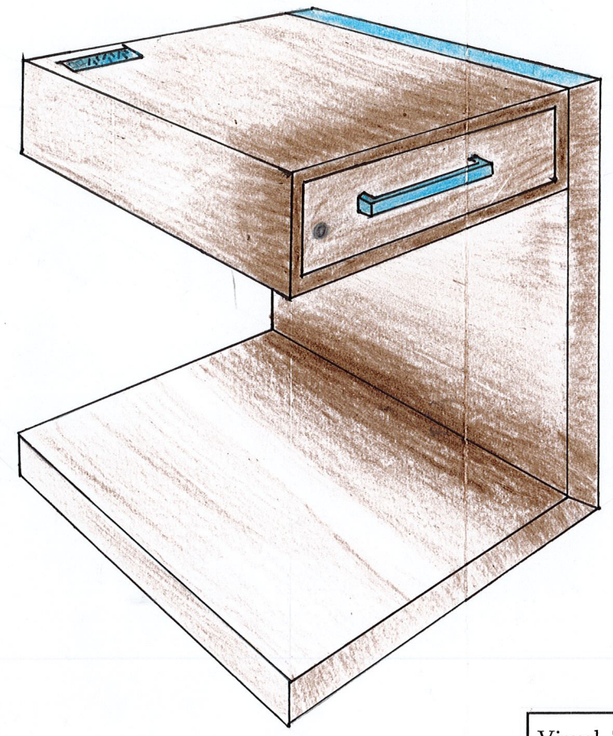
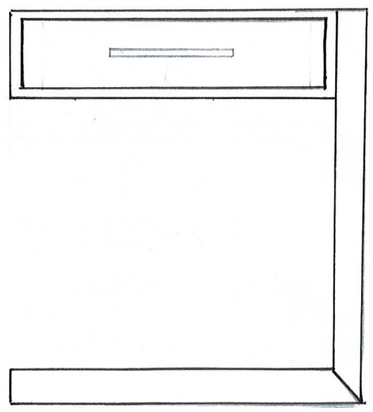
Purpose, Function & Context:
The primary purposes of this product are to work as a function bedside table, and to provide space to store the Sonos Sub. It has a secondary function of having a lockable drawer, providing out of sight, safe and secure storage for the users valuable items, watches, wallet etc.



Visual, Tactile & Aesthetic:
The bed side table also helps to maintain a neat aesthetic through the use of a cut out shelf in the rear of the unit, with the drawer not extending all the way back through the unit, leaving space. Here there is an extra power point unit, where the sub woofer and lights can be plugged in, instead of on top, as well as providing storage for the smart lights control unit, out of site, whilst remaining accessible.

Purpose, Function & Context:
The space underneath the drawer provides a storage place for the subwoofer, with the lack of a back board allowing sound to escape from the back of the unit, and be reflected up and off the rooms wall, allowing for more evenly spread bass to fill the room, without it being muffled and reverberated through a unit with a back wall, as it is currently under the desk, the problem the user wants to fix.

Visual, Tactile & Aesthetic:
This design is constructed with a dark grey finished, matte wood, providing a sharp, modern look. This is accented by silver, aluminium finishes, such as the drawer handle, as well the subwoofer, and power plugs, which are white, providing contrast between the dark coloured wood, and light coloured accessories.



Innovation & Creativity:
This design features a voice control system, powered by Google Home, on the Google Home Max speaker, which can be plugged into the power points on the top of the table, and will power the connected Sonos System, as well as the smart LED light strips underneath the table, illuminating the subwoofer, and providing a unique effect for the table. The drawer also features a lockable drawer, locked by a fingerprint scanner.

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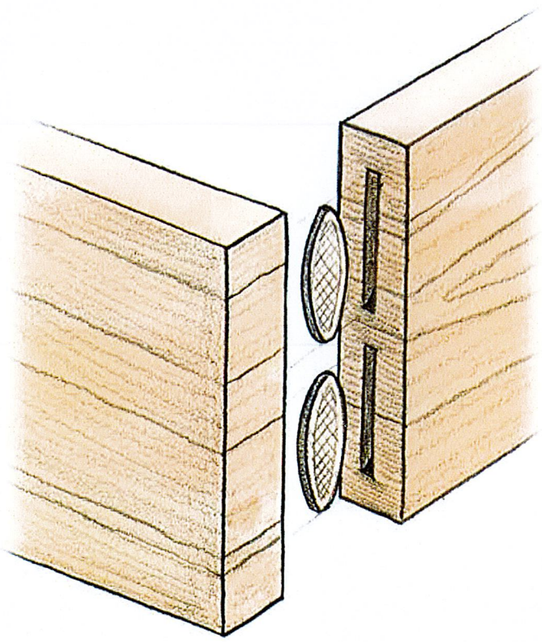
PDF's	Criteria	Score /5	User Feedback
Purpose, Function & Context	- Would the proposed design be easy to use? - Does the proposed design have space for the Sub?		The table design, with the open, unobstructed top, as well as the large drawer handle looks very easy to use, particularly at night/lowlight conditions. The design would also have room for the sub, and a power point, making it a very practical design
Innovation and creativity	-Does the product make use of emerging technologies?		This design has space on it to place my Google Home Max, which will integrate Google Assistant into the design, as well as having smart lights on the underside, illuminating the Sub, which'll be awesome
Visual, Tactile & Aesthetic	Does the design have a tidy, clean, modern design?		The cut out section behind the drawer is awesome for helping to keep it tidy, with all the power power points required to run the integrated systems out of site, with extra point on top - very usefull
Materials	Are the materials used appropriate for their use, and do they reflect the design style?		The wood chooses for this design, black walnut, looks really cool. It has a dark, Scandinavian look to it, especially with a matte finish. The wood is also strong, which is handy, and has a cool pattern to it
User-Centred Design	Does the design allow for easy access to the additional features?		The design will be easy to use, with the Google Home being able to go next to the top power point, and is voice controlled. Access to the rear section behind the drawer could be harder, but would also get less use

Overall User Comments

I do quite like this design. It meets all of my design requirements, and does so in a very modern looking manner. It also includes the latest tech, which is integrated very well, and makes use of all the space available. I particularly like the the hidden storage area for the electronic connections, which will help to maintain the tidiness of the bedside table, and is a rather unique feature. It is also rather impressive with the floating table section, however, this could be a potential problem when it comes the weight it can hold, as the corner would be under a lot of stress. While the design is cool and unique, it would be too impractical

Materials:
This design will use black walnut, which is a hard, durable wood. It is usually straight grained, however it often changes angles and pattern, providing a unique look to the wood. It provides a modern, Scandinavian look, and because of it's unique colour, provides excellent contrast. It also suits the dark colour of the Google Home Max, adding to the overall design of the bedside table.



Joining Method:
A joining method that could be used in this design is a biscuit joint. The benefits of a biscuit joint being used is that it provides very little flex, allowing for the corners of the design to stay rigid and remain at the correct angles, without bending or allowing any gaps in the joint to open, which improves the longevity of the product, as well as ensuring the quality that the user expects

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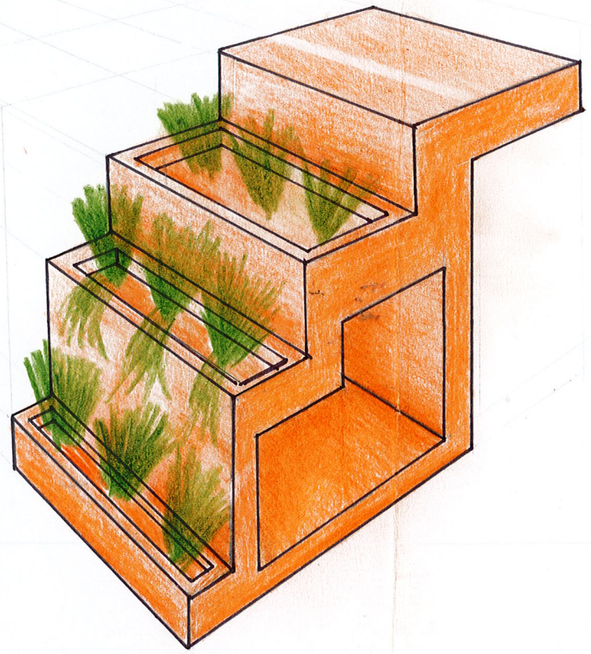
Visual, Tactile & Aesthetic:
The bedside table has been design to incorporate a multi level garden system, which adds greenery to the room, and helps to incorporate garden space into smaller residences, such as apartments, where greenery is often lacking. A mixture of succulents and cacti are used to provide a vibrant, tactile, yet low maintenance garden, with creepers growing over the exterior of the table to provide a soft element to the product, removing from the harshness of the wood

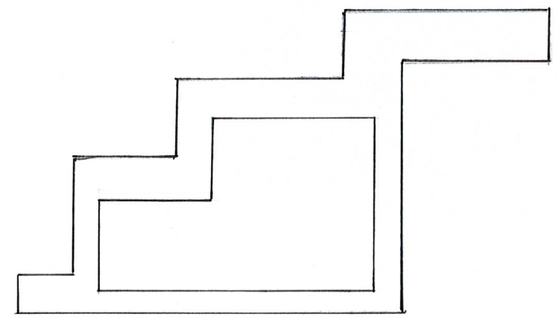


Purpose, Function & Context:
The primary function of the product is to function as a bedside table, providing tabletop space, as well as an internal storage area. The secondary function of this is that it includes garden area, acting as a miniature carbon sink, and improving the air quality of the room.

Innovation & Creativity:
This design makes use of an integrated smart assistant, which controls the inbuilt smart lights, which change colour to suit the mood of the user, as well as controlling the automatic watering system built into the unit, allowing the user to program watering times for the garden beds, and to also control the watering manually, from anywhere in the world. The unit also includes an air quality monitor to measure the effect the plants have on the room

Visual, Tactile & Aesthetic:
This product would be built using recycled railway sleepers, which have a dark, worn appearance, as well as having a very rough aesthetic, providing a very distinct, unique look and feel. The natural grey colour of the sleepers would contrast well with the white painted room, providing a focal point as well.

Sustainability:
This product features a multi level garden, adding a living element to the product. This makes the product more sustainable as it acts as a miniature carbon sink, helping the environment, as well as improving the air quality in the room its used in, and helping to reduce the overall carbon footprint the materials used to make the product have on the environment.



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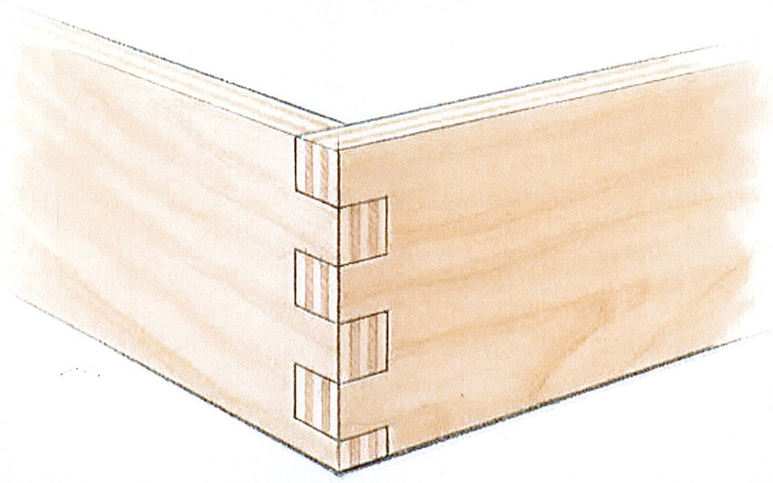
PDF's	Criteria	Score /5	User Feedback
Purpose, Function & Context	- Does the product provide suitable storage space - Does the proposed design have space for the Sub?		This design incorporates plenty of storage space, both on the table surface and underneath the garden areas, however, the storage space for the sub, under the higher garden, is not suitable, as the sub facing sideways to the room, with wood right behind it, blocking the sound from flowing out into the room
Innovation and creativity	-Does the product make use of modern technology?		This product incorporates modern technology, but not very well. The automatic watering system is great, but there is no suitable space for the voice assistant, or to store the water pump and tank where it doesn't take away front the storage capacity
Visual, Tactile & Aesthetic	- Is the design modern and unique? - Does the design allow for neatness?		The design is very modern, and the incorporation of the multi tiered garden is awesome, allowing for themed beds, however there is nowhere to hide cords, and there are no power points incorporated into the design, which would lead to a mess of wires, & would require a power board
Materials	Do the materials suit the users wants and needs, and the proposed use?		The materials chosen for the design are awesome, the old sleepers are really cool, and would provide a very unique look. They would require some work, but they would definitely suit the table, although the table surface would need to be filled so its flat
Sustainability	Does the design meet the users sustainability expectations?		This design perfectly suits my sustainability requirements, and the incorporation of the garden into the design is awesome, and not something you see every day. The garden would also act as a carbon sink, constantly helping the earth.

Overall User Comments:

The design of this bedside table is cool, and is different too the norm. I loved the garden idea, and how it will benefit the environment throughout its lifetime, however, the storage space for the sub is inadequate, and there isn't anywhere to store valuables out of site. The storage underneath the unit is also awkwardly shaped, and there is nowhere for the watering system to be stored, without infringing on the already limited storage space. There is also nowhere to plug in the devices incorporated in the design, which would leave a mess of wires and a power board in full sight, so whilst the design is cool, it isn't practical.



Joining Method:

A joining method that could be used in this design is a finger joint. A finger joint is ideal for 90° corners, which this design has a lot of, as the 'fingers' provide a large surface area for adhesives, and make it extremely resistant to bending, allowing the corner to withstand large amounts of pressure and weight. The finger joint is also a very decorative joint, with the exposed wood grain contrasting against the smooth outer, creating a unique look.

Materials:

The materials proposed for use in this product are reclaimed railway sleepers. Railway sleepers provide a unique look, as they have been subject to extreme conditions for countless years, providing a worn, weathered look. They are also very thick, meaning one can be sawn to make several sections of table. This helps lower the carbon footprint of the end product, as minimal new product is being used to make the table. The railways sleepers are also usually made from pine, which is a softwood, and is almost always grown in plantations, making it as sustainable as possible, providing the perfect partner for the garden spaces in the design

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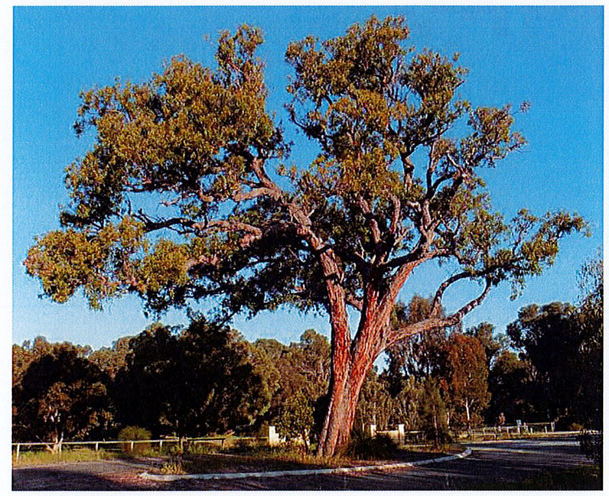
Purpose, Function & Context:
The primary purpose of this design is to be a practical bedside table, with plenty of storage space. The secondary purpose of this product is to provide a dedicated storage space for the users sub, which maximises the sound quality without removing from the integrity of the design



Jarrah Tree

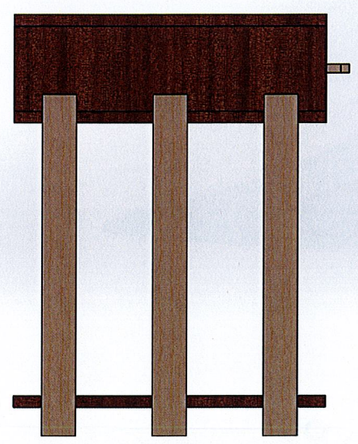
Visual, Tactile & Aesthetic:
This design is going to be constructed using Jarrah, which is an incredible strong and dense Australian hardwood. It has a rich brown colour, which provides a strong contrast with the white room and sub. The grain structure is mostly straight, however small variations provide a unique effect and interesting details

Innovation & Creativity:
This design makes use of three seperate pillars to support the design, instead of the traditional flat wall, which allows for increased airflow around the sub, as well as removing surfaces that would block, direct or distort the sound. This design solution allows the sound to be spread throughout the room in a more even manner, something the user requested

American Ash

Visual, Tactile & Aesthetic:
This bedside table incorporates smart lights built into the underside of the table, which provide a splash of colour to the room, and the product. Not only do these lights illuminate the bedside table, but are also mounted on the rear side of it, illuminating the wall behind. This allows the product to create multiple lighting zones, providing a very unique, and highly customisable lighting configuration in the room.

Innovation & creativity:
Smart lights have been incorporated into this design, underneath the bottom table, on the underside of the table unit, and on the rear side of the unit. This allows for multiple lighting zones, to the point where several million combinations are possible, due to the versatility of the led light strip, making it potentially the most customisable bedside table ever made



PDF's	Criteria	Score /5	User Feedback
Purpose, Function & Context	- Does the design provide sufficient storage space, as per the Design Brief? - Does the design provide space for the sub?		This bed side table design provides plenty of space on the tabletop, in the drawer, underneath and in the storage area behind the drawer, sufficiently providing space for both the user, and the incorporated technologies. The space for the sub is also very well designed, with minimal surrounds to block sound, and with no backboard
Innovation and creativity	- Has the design allowed for integration with modern technology?		This design has excellently integrated the modern technologies requested by the user into the design, with smart light strips illuminating the sub, and the drawer, with space for the google home on top, and a hidden area to supply power and hide the light base
Visual, Tactile & Aesthetic	- Is the design fresh and modern? - Does it have a unique design?		This design does have a modern feel to it, with a touch of industrialness as well. The sharp lines and dark colour contrast well with the room, and the supports on the side for the top section have a unique look to them, different from the usual four corners
Materials	- Do the materials suit the product and the user?		The materials chosen for this product are very suitable. The wood chosen, Jarrah, has a deep, rich colour, and with its tight grain structure, it holds its colour very well. This tight grain structure, as well as its high density make it very strong, and dent resistant
Sustainability	- Does the design reflect the users sustainability requests?		This design is made with a hardwood, Jarrah, which is not sustainable, however, it can be sourced in a responsible manner, and the woods properties help to counterbalance the negatives. It is very dense, and strong, meaning it will last longer than others.

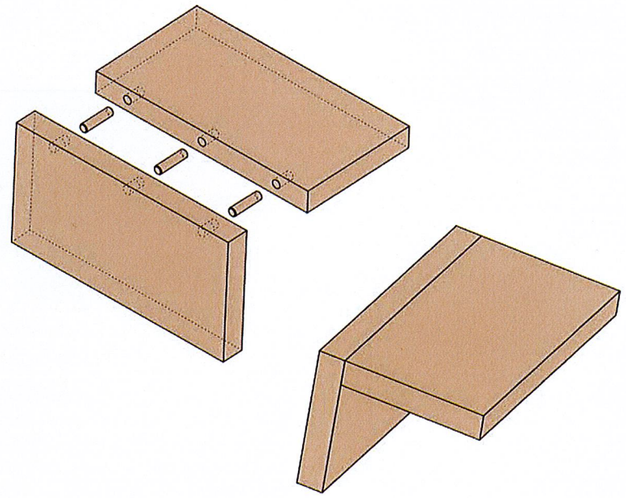
Overall user comments:

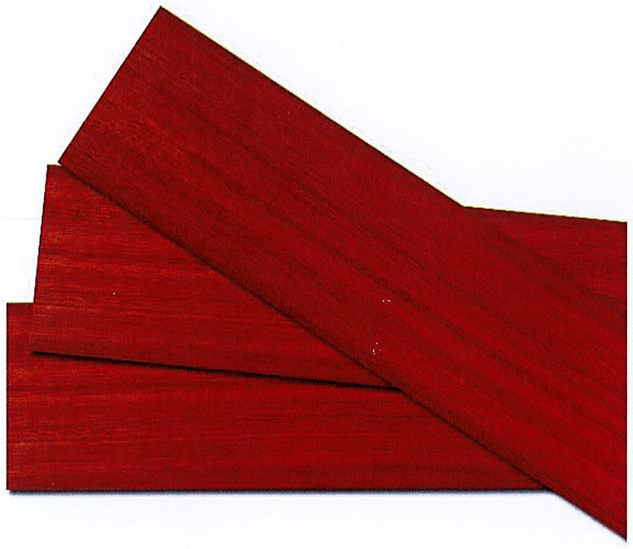
This design is really good, and is my preferred design option. The amount of storage space is awesome, and the way it has been integrated into the design, particularly the rear storage area, is really good. The technologies integrated into the design are also pretty cool, with the lights illuminating the sub, and room being a nice touch. The way this design works around the sub is very practical, without being boring. To have three pillars on each side is different to the usual one in each corner, and I do quite like it, and it also allows for minimal material to be around the sub to block sound. The sheer size of the design makes it stand out as well, and whilst it is on the large size, I think it would work really well for me

Joining Method:

A joining method that could be used on the design is a Dowel Joint, where a cylinder goes into a hole on each of the joint pieces, so that half the cylinder is in each. This removes the ability for the joining surfaces to move horizontally, holding them in place, relative to each other. This could be used where the side support connect to both the upper and lower sections, providing two benefits.

The first would be to stop the upper section from sliding off the supports if it got knocked or bumped, should the glue not hold. The second benefit would be to hold the legs in place on the bottom section, should the table be moved.





Materials:

The material chosen for this design is Jarrah, an Australian hardwood. The benefits of Jarrah are that it is very dense, making it extremely resistant to denting, and its tight grain structure allows it to hold its colour well. The tight grain structure also means that the wood is very strong, allowing the six supports to support a vast amount of weight. The grains of the wood are also mostly straight, with very few variations, giving it a very even appearance, and making it easier to match up sections of wood with each other. Being an Australian wood, its felling also gives back to our economy, supporting Australian jobs. American Ash, another hardwood, is used for the legs, and can be purchased from Australian companies, again supporting

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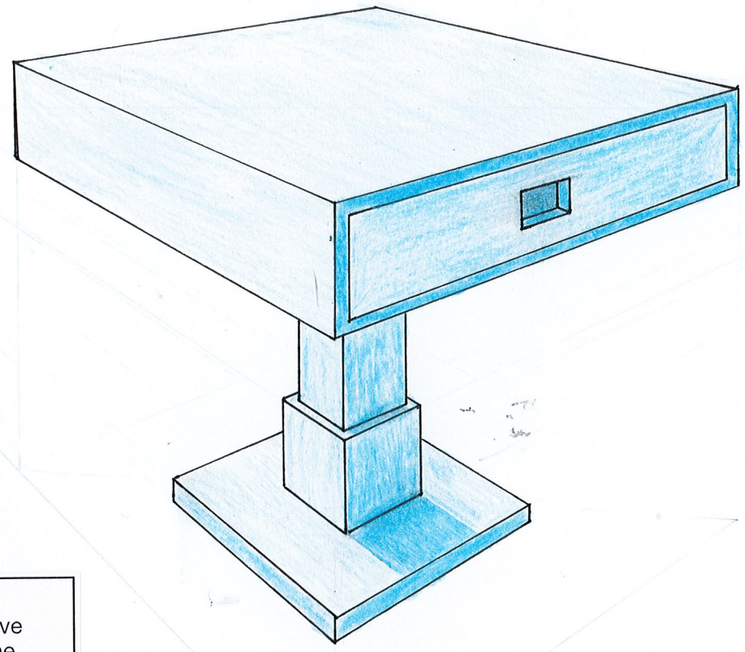
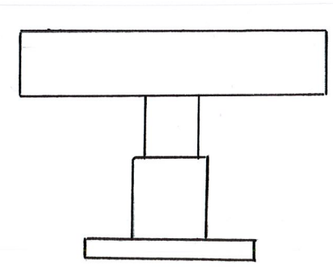


Innovation & Creativity:
This product would make use of a very innovative design, with a lifter mechanism hidden inside the centre support pillar, allowing the table height to be precisely customised to the user, depending on mood, location, room, etc. This allows. The product to fit into the users life easier, as it can be used everywhere from being a bedside table to a leg rest. It also has smart lights under the table, illuminating its surrounds, and the lifter surface as well

Visual, Tactile & Aesthetic:
The design of this product provides a very robust appearance, with the stainless steel centre pillar adding an industrial touch. It is finished matte, almost looking frosted, which provides an interesting surface under illumination. However, this does add a sense of coldness to the design, which has been counter balanced with the top section being made from Rosewood, which is a particularly warm toned wood, with striking patterns and a wavering grain structure

Purpose, Function & Context:
The primary function of the product is to function as a bedside table, providing tabletop space, as well as an internal storage area. The secondary function of this is that it is height adjustable, allowing it to be customised to the users mood, bed height, and use, raising and lowering the table and drawer section, using a screw lifter

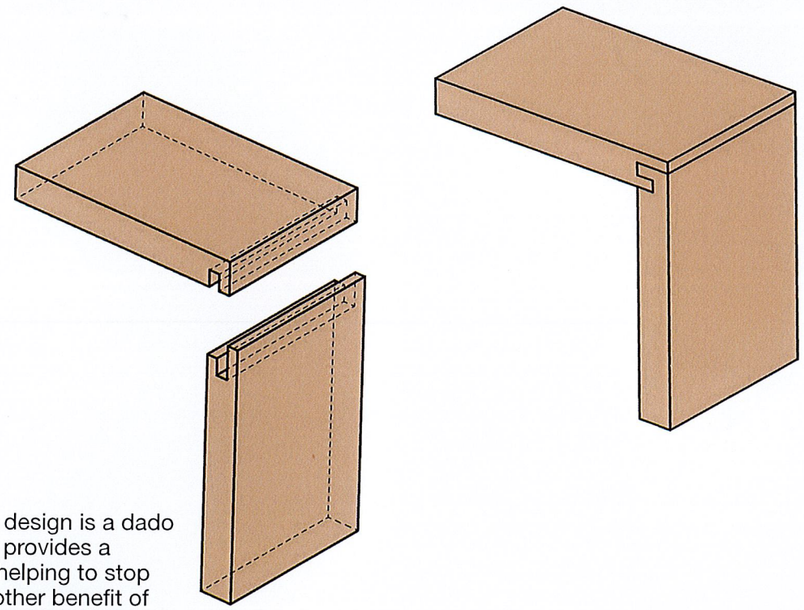
Visual, Tactile & Aesthetic:
This product would be built with a stainless steel lifter shell, which holds the weight of the table, and hides the lifter mechanism, providing a robust, industrial look to the product. The top table and drawer section would be made from Rosewood, which has a very decorative grain, and helps to adds a sense of warmth to the design



PDF's	Criteria	Score /5	User Feedback
Purpose, Function & Context	- Does this design idea provide storage space for Sub? - Does it suit the users wants?		This design does provide storage space for the sub, however it is positioned more as an afterthought, on the base plate in front of the screw lifter, which would reflect sound, and potentially resonate. However, the table design would work well for the user, with the adjustable height making the table very convenient
Innovation and creativity	- Does this table make use of innovative technologies?		This product incorporates modern technology very well, with the whole design centre it around a screw lifter, making the table height as adjustable as the users mood. This could also be voice controlled by the Google Home, and the smart lights are a neat feature
Visual, Tactile & Aesthetic	- Is the design modern and unique? - Does the design suit the style of the room?		This design is very modern, with the wooden top contrasting against the stainless steel lifter casing, itself a very unique aspect of the design. The design also goes well with the room, the stainless steel and wood providing a centre point against the white wall
Materials	- Do the materials reflect their purpose?		The materials chosen for the design work well with it. The stainless steel casing for the lifter covering provides a very industrial, robust look, suiting its purpose as the moving support, and the wooden top provides a strong, but decorative aspect.
Sustainability	Does the design work with the users sustainability wishes?		This design isn't very sustainable, as it has a large number of metal components in the lifter mechanisms, which gives it a rather large carbon footprint, as well as the increased power consumption due to run the electric lifter motor

Overall User Comments:

This design is really cool, with the lifter being a very unique feature, which actually serves a pretty relevant, and useful purpose, allowing the table to be adjusted to work with different beds, such as going between home and boarding school, as well as if I want it higher or lower depending on my mood. However, I could imaging that as being something that could cause problems, and would require frequent maintenance to keep operating. The lack of proper storage space for the sub is also a problem, as that is a major part of the design. It also has limited storage space compared to some of the other designs, which is a problem. Overall the design is really cool, and has some interesting features, but its just not practical



Joining method:

A joining method that could be used for the design is a dado joint. The benefits of the dado joint is that it provides a strong grip for wood joining at a 90° angle, helping to stop any bending or flexing that could occur. Another benefit of the dado joint is that it is visible on the ends of the pieces, providing an interesting detail to the table design. One downside to the Dado Joint however is that is is more complex to make than others, adding time to the project, as well as an increased risk of error and mistakes due to the increased complexity of the joint and its construction

Materials:

The materials chosen for use in this design reflect the purpose they serve, with the stainless steel covering hiding the lifter mechanism, and supporting the weight of the table. It is a hardy material, for a hardy purpose. Situated on top of the pillar however is a wooden drawer and table, using decorative rosewood, to provide a more homely feel to the harsh industrial feel of the stainless steel. Rosewood was chosen for this design, as it is well known for its decorative grain lines and patterns, as well as the colour variations seen through just one plank. This provides a decorative, interesting focus point to the table design.

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Purpose, Function & Context:
The primary function of the product is to function as a bedside table, providing tabletop space, with a secondary storage area out of site in the drawer, which is lockable

Pine Board

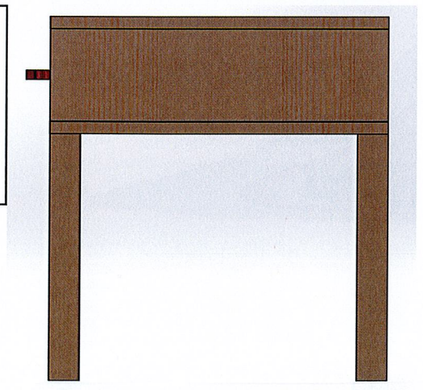
Sustainability:
This design uses pine, which is a softwood, and is therefore sustainable as it grows back within a human lifespan. Pine can also be readily sourced from local plantations, reducing the products carbon footprint, and making it one of the most sustainable design options.

Visual, Tactile & Aesthetic:
This design uses pine, which is a light coloured soft wood, providing a light, airy aesthetic to the design. This design would go well with the existing woodwork of the room, and the white paint used throughout.

Pine Tree

Visual, Tactile & Aesthetic:
A benefit of using pine in this design is that its light colour reflects the light from the smart lights. This allows fewer light to light more of the design, and helps to spread the light further into the room, reducing power costs and consumption, which allows the product to have a lower carbon footprint. This also provides a unique aesthetic to the design, as pine grain features slight variations in height, which the light would inherently play off differently.

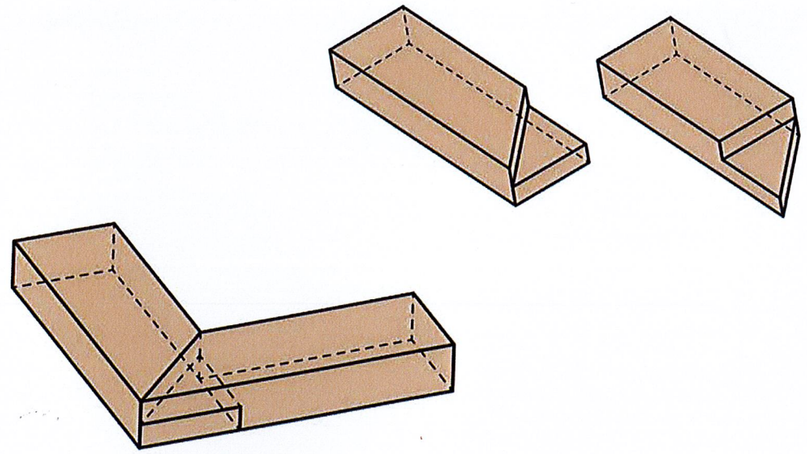
Innovation & Creativity:
This design makes use of smart lights, controlled by google assistant which illuminate the edges of the design. These lights provide a unique effect, and are fully customisable by the user, to suit their mood. The table also features a lockable drawer, which allows for more valuable items to be stored securely and out of sight.



PDF's	Criteria	Score /5	User Feedback
Purpose, Function & Context	- Does this design idea provide adequate storage space for Sub? - Does it suit the users needs?		This design provides storage space for the sub, in a way I suppose, with the area underneath the table left open, however it is more of an afterthought looking space, instead of a dedicated one. The table however does suit the users other needs, with drawer space and table space
Innovation and creativity	- Does this table include modern tech?		This product integrates smart tech with LED light stipend detailing its underneath and edges, however it doesn't include anything else, such as power outlets, or dedicated space for a smart assistant.
Visual, Tactile & Aesthetic	- Is the design modern? - Is a unique design?		This design is modern, with sharp lines and edges, however the design is not unique, looking like every other bedside table out there, only more basic. The pine chosen provides a light look, keeping the room bright, with a clean, cool aesthetic
Materials	- Do the materials reflect their purpose?		The wood chosen for this design, pine, would work, however it is susceptible to rotting, and would therefore need to be treated. It is also a softwood, which makes it easier to dent, and would reduce the lifespan of the product, as well as its strength
Sustainability	- Does the design suit the users views on sustainability?		Being made from a softwood, pine, this design is very sustainable, as the wood itself is, growing back within a humans lifespan. Pine is also grown in plantations, further reducing its carbon footprint. These plantations are also in Aus, supporting our jobs

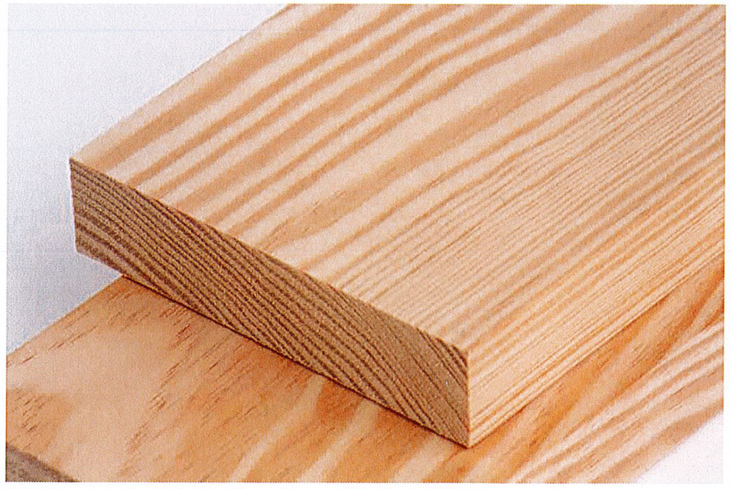
Overall User Comments:

This design is nice and basic. I do like the idea of this as it would be cheaper to make, and the fact that its made from a softwood is great, as it would be easier to work with, so not only would it be cheaper, but faster as well. Being a softwood, pine is also relatively light, making it easier to transport the product, or just moving it to clean. However, as pine is light, it has a lower density than other woods, which means its easier to dent, scratch and tear. It also isn't as strong or as durable as other woods, and wouldn't last as long, so it won't suit.



Joining method:

A joining method that could be used for this design is a mitred half-lap. The benefits of the mitred half lap is that provides a substantial surface area for adhesive, allowing for a very strong hold. Another benefit is that because of the angle of the join, is is more resistant to bending and splitting than a regular half lap joint. It is also a simpler, easy to make style join, reducing the risk of mistakes, and helping to ensure the accuracy of the work, minimising wastage.



Material:

The material chosen for this design is pine, which is a sustainable, responsibly managed plantation sourced softwood. It is grown in plantations here in Australia, supporting our economy and out local jobs. However as it is a softwood, pine isn't as strong as other wood, and is easier to dent and scratch, however on the other hand, it is also easier to work, and would save weight on the design

Evaluation Criteria	Weighting	DO1	DO2	DO3	DO4	DO5
Does the design provide/how suitable is the storage for the sub?	/10	10	5	3	0	10
How well does the design incorporate modern tech?	/10	8	5	10	5	10
Would the design be easy to use in low light?	/8	7	8	8	8	9
How much other storage space does the design have?	/8	6	6	2	5	6
Does the design include out of sight storage?	/5	5	5	5	0	5
How sustainable is the design?	/5	2	2	2	5	2
Does the design practically integrate its technology?	/4	3	0	3	2	4
Total	/50	41	31	33	25	46

The evaluation table above ranks the different area's of each design option, with the ranking size of the scores based on their importance to the user, and the overall effect they will have on the quality/performance of the final product.

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Preferred Design Option

Design option five was the end-user's preferred design option as it best fulfilled his requested criteria, and had a design he liked. The user 'loved how the design integrates modern tech' and liked the fact that it would 'fit in with the rest of the smart tech at home'. This also provides storage area behind the drawer, where the power solutions could be stored, helping to hide cables, and the user was impressed by how the legs of the table differ from a standard wall, allowing for more sound to escape from the sub, minimising distortion and reflection. 'I also like the fact that smart lights will be installed under the drawer unit, illuminating the sub. I love how it puts it on display. It's awesome'.

The user also commented on the wood chosen for the design, Jarrah, saying 'I love the richness of the wood's colour. It will contrast really well with the whiteness of the room, and provides a warm aesthetic, perfect for the bedroom'. The user also liked the contrasting legs and handle, saying 'it ensures the design won't be too monotone, adding a little splash of contrast. It's cool'. This design also uses many of the same parts, reducing the complexity of the construction, and helping to reduce construction time, hopefully, and minimising and time stresses. It would also help to ensure a higher level of quality, as it is several of the same tasks, helping to increase the precision of each task, and making it easier to practice before construction.

Evaluation Criteria	Weighting	DO1	DO2	DO3	DO4	DO5
Does the design provide/how suitable is the storage for the sub?	/10	10	5	3	0	10
How well does the design incorporate modern tech?	/10	8	5	10	5	10
Would the design be easy to use in low light?	/8	7	8	8	8	9
How much other storage space does the design have?	/8	6	6	2	5	6
Does the design include out of sight storage?	/5	5	5	5	0	5
How sustainable is the design?	/5	2	2	2	5	2
Does the design practically integrate its technology?	/4	3	0	3	2	4
Total	/50	41	31	33	25	46