REPORT-2

DOCTOR BAG

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CERTIFICATE

This is to certify that the project work entitled "**Doctor's Bag**" submitted by **Abhishek Arora**(2020BtechCSE002),**Bhavishi Bansal** (2020BtechCSE019),**Chirag Kumar**(2020BtechCSE022),**Harsh Khandelwal**(2020BtechME002),**Vardhana Sharma**(2020BtechCSE081) towards the partial fulfillment of the requirements for the degree of Bachelor of Technology in Computer Science Engineering of JK Lakshmipat University Jaipur is the record of work carried out by them under my supervision and guidance. In my opinion, the submitted work has reached a level required for being accepted.

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ACKNOWLEDGEMENTS

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Secondly, we would like to thank our parents who helped me a lot in gathering different information, collecting data and guiding me from time to time in making this project , despite of their busy schedules ,they gave me different ideas in making this project unique.

We would also like to expand our deepest gratitude all those who have directly and indirectly guided us in writing this report. We thank all the people for their help directly and indirectly to complete our report.

Sincerely yours,

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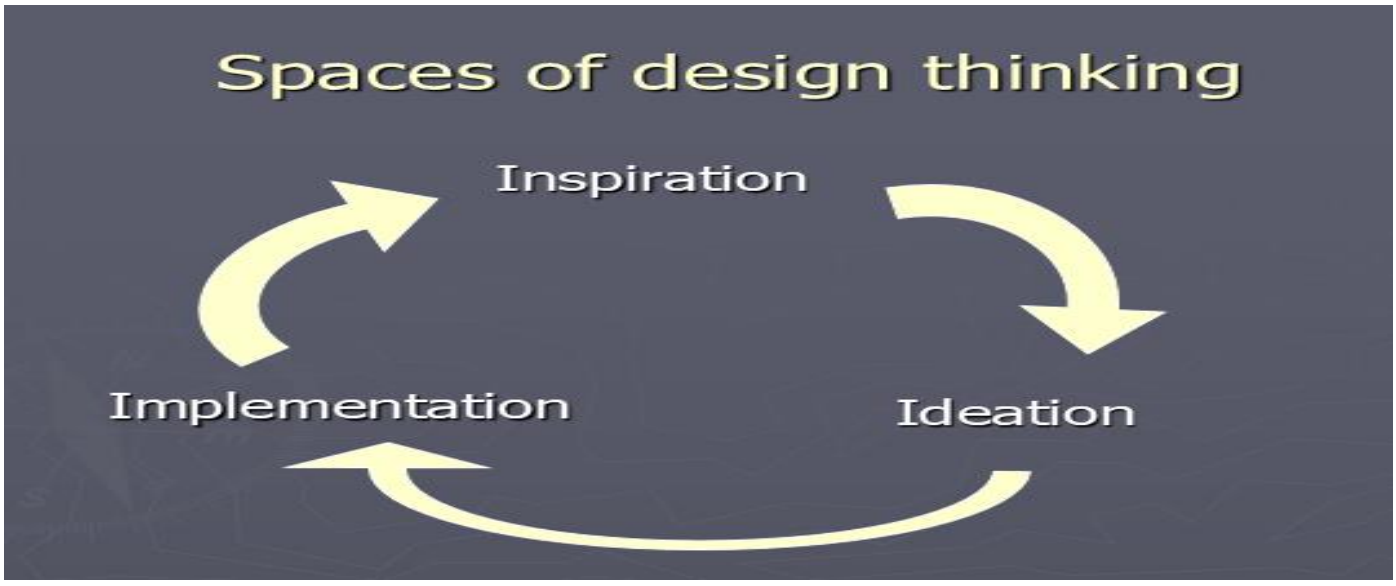
CONTENTS

What is design thinking?

- A Method of zeroing in advancement on individuals and planning dependent on:
- What individuals need and need.
- What individuals like or aversion.
- In respects to creation, bundling, showcasing, retailing, backing, or every one of them.
- An ability that permits an architect to adjust what individuals need with what should be possible and produce a reasonable business methodology that makes client worth and market opportunity.



What Doctor bag actually is??

A Doctor's bag is a portable bag used by doctor's or other medical professionals to transport medical supplies and medicine. The main aim behind doctor's bag is to make a portable bag which includes all the necessary medical facilities with clear and simplified interface. This bag is designed to offer basic instruments and medical equipments in a well-mannered and in organized way.

Why we have chosen to manufacture doctor bag?

- Whenever a doctor has to visit any patient, he/she can carry the required stuff for the treatment with the help of the doctor bag in an efficient and well-mannered way.
- As this bag is going to be helpful in various emergency situations, so we thought we can manufacture it by providing extra user comfort stuffs like inbuild torch for emergency situations and some other facilities like this.
- Our bag which we will manufacture will be able to carry almost every basic equipment required for the treatment. This Bag can carry BP Machine, Sugar Testing Kit, oximeter, other basic medical instruments like scissors, stethoscope, syringe, blood sample tubes, basic doses of injections such as tetanus, also the bandages, band-aid, antiseptic, painkillers, etc. in a proper manner.

- During the recent covid-19 pandemic situation, lockdown was announced almost everywhere so everyone has to just stay at home for many months and there was a huge rush at the hospital of people who was suffering from many severe health issues especially COVID-19 patients.
- Due to all this, patients who were having some minor health problems were trying not to visit hospitals so that they can avoid the contact form the COVID-19 infected patients and people were avoiding going to hospitals, because of covid-19 virus.
- At that time, our doctor's bag could become an essential and an utmost important item so that everyone need not to go outside of their home. That is why we had decided to fabricate the doctor bag.

Component's Table

List of materials for different parts of our product

Serial No.	Parts	Materials / Specifications
1.	Outer body+ Inner body bars.	Aluminium (Series6000) of thickness 10 mm
2.	Handle	Polycarbonate
3.	Fabric	Artificial, Synthetic leather
4.	Screw	Steel + Iron (HJ Garden 1/4-20 Thread D-Ring Stainless Steel)
5.	Wire	Copper (8 SWG)
6.	Switch	Plastic (Thermoplastic)
7.	Battery	20V (4 * 5V)
8.	Solar panel	Square Mini Solar Panel 6V-100 mAh (70 X 03 mm)
9.	LED	4V Led Aluminium Strip
11.	Locks	Fastener Toggle Latch Catch Chest (Loc N4C3)
12.	Sheet	Polycarbonate (Transparent Polycarbonate Sheets, 2 mm)

13.	Hinges	Iron (Iron Continuous Hinge, Size: 6feet)

Serial No.	Parts	Process	Prices
1.	Outer body+ Inner body bars.	TIG Welding	Rs. 275/kg 4*275 = Rs. 1100
2.	Handle	Purchased	Rs. 350
3.	Fabric	To be paste with the help of E6000 Craft Adhesive	Rs. 88 (For 20cm x 33cm) 88*3 = Rs. 264
4.	Screw	Purchased	Rs. 445 (for 2 piece)
5.	Wire	Purchased	Rs. 495 (per kg)
6.	Switch	Purchased	Rs. 30-40
7.	Battery	Purchased	Rs. 399
8.	Solar panel	Purchased	Rs. 90
9.	LED	Purchased	Rs. 70
11.	Locks	Purchased	Rs. 320 (per piece) 2*320 = Rs. 640
12.	Sheet	Purchased	Rs. 110 (per sq. feet) 110*2.15 = Rs. 236.5
13.	Hinges	Purchased	Rs. 250

TOOLS DETAILS

Hand Grinder

It's anything but a handheld force device utilized for pounding (grating cutting) and cleaning and it is additionally calls point processor. Angle grinders normally have a flexible guard and a side-handle for two-handed activity.

Filer

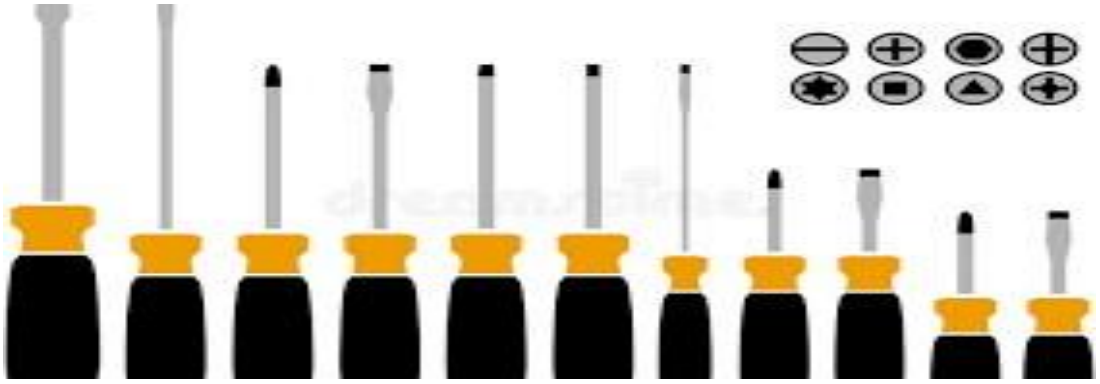
A filer is an instrument used to eliminate fine measures of material from a workpiece. It is very much common in carpentry, metalworking, and other comparative exchange and side interest assignments.

Welding Machine

Welding is a creation interaction whereby at least two sections are intertwined through warmth, pressure or both shaping a join as the parts cool. Welding is generally utilized on metals and termoplastics yet can likewise be utilized on wood.

Screw Driver

A screwdriver is an instrument, manual or fueled, utilized for screwing (introducing) and unscrewing (eliminating) screws. A screwdriver is ordered by its tip, which is molded to fit the driving surfaces, spaces, grooves, breaks, and so on the comparing screw head.



Chipping Hammer

Chipping hammers are lightweight, hand-held substantial breakers that can be handily situated to break vertical and overhead surfaces. By offering a controlled chipping activity, these mallets permit administrators to absolutely chip away just explicit regions.

Plier

Pliers are a hand device used to hold protests immovably, conceivably created from utensils used to deal with hot metal in Bronze Age Europe. They are likewise valuable for bowing and compacting a wide scope of materials.

Jigsaw

A jigsaw is a saw which utilizes a responding sharp edge to cut sporadic bends, like stenciled plans, in wood, metal, or different materials. A jigsaw power apparatus is comprised of an electric engine and a responding saw sharp edge. Jigsaws with sole plates that have a sloping capacity can slice points ordinarily up to 45 degrees comparative with the ordinary vertical stroke to make miter joints. A jigsaw is a saw which utilizes a responding sharp edge to cut sporadic bends, like stenciled plans, in wood, metal, or different materials.

E6000 Craft Adhesive

The E6000 stick is an inside and out stick with modern grade strength that makes it conceivable to bond nearly everything from cowhide to metals, elastic, wood, earthenware production, glass, textures, vinyl, and everything in the middle.

Tap and Die

Taps and die(passes) on are devices used to make reason screw strings, which is called stringing. Many are cutting devices; others are shaping apparatuses.

A tap is utilized to cut or frame the female segment of the mating pair (for example a nut). A pass on is utilized to cut or shape the male part of the mating pair (for example a bolt).

Metal Brush

These brushes are planned with tempered Aluminium bristles that can chip away splash, rust, slag, paint, and other difficult to eliminate materials.

MATERIAL USED FOR BODY

We will use the 6000 series aluminum.In this series there are 4-5 types of variteis so we will use one of the depending on the availability of the type of materialin the market.

6061 aluminium is that the most typically used aluminium alloy.

Primarily thanks to its strength, heat treatability, and comparably simple machining and weldability.

The main alloying parts of 6061 are magnesium and silicon.

These parts provides it a footing in maintaining corrosive resistance, even once the surface is injured. If that wasn’t enough, it can even be anodized for an extra skinny layer of protection.

6061 is offered in several forms as well as extrusion, sheets, and field shapes.

You will notice this alloy on applications starting from food packaging and fly-fishing reels to firearm suppressors.

6063 aluminium is usually known as architectural aluminium for 2 reasons: initial, it's a surface end that's way smoother than the opposite commercially obtainable alloys. Second, its strength is roughly 0.5 that of 6061.

This is as a result of whereas its main alloying parts area unit metallic element and semiconducting material, it's way lower levels of every.

This makes it fitted to applications wherever strength isn't the first thought, like non-load-bearing posts and roofs, or decorative structures.

6063 rates well for activity in cold operating operations, is superb for anodizing and honest for machining.

While it's simply welded or brazed, you ought to rigorously choose filler material to atone for reduced strength within the welded regions since it's heat treatable.

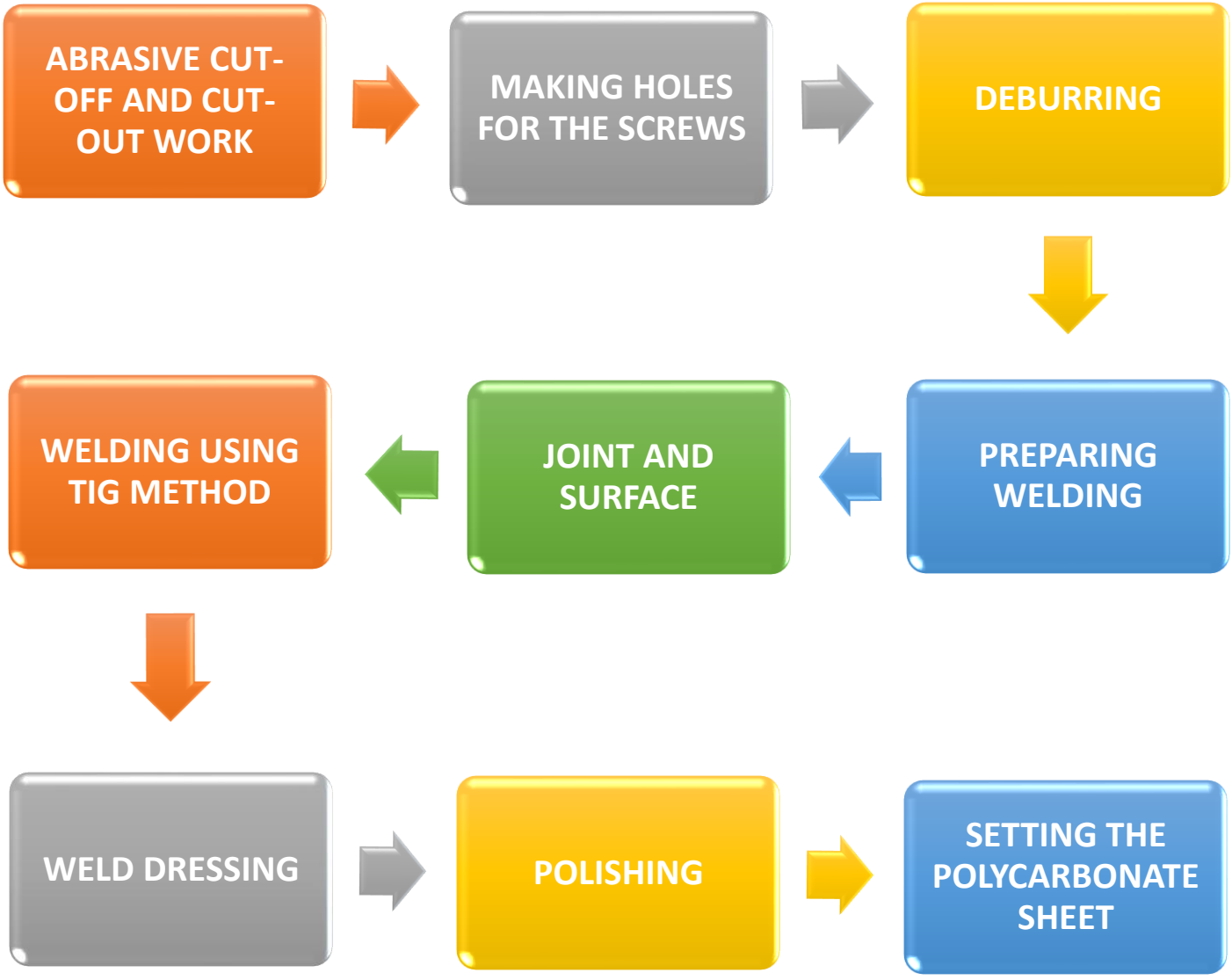
6101 aluminium is best fitted to applications involving moderate strength and most electrical conduction. It’s kind of like 6063, however with minor chemistry changes that enhance electrical conduction.

Although 6101 offers slightly lower conduction than 1350, it offers approach bigger strength.

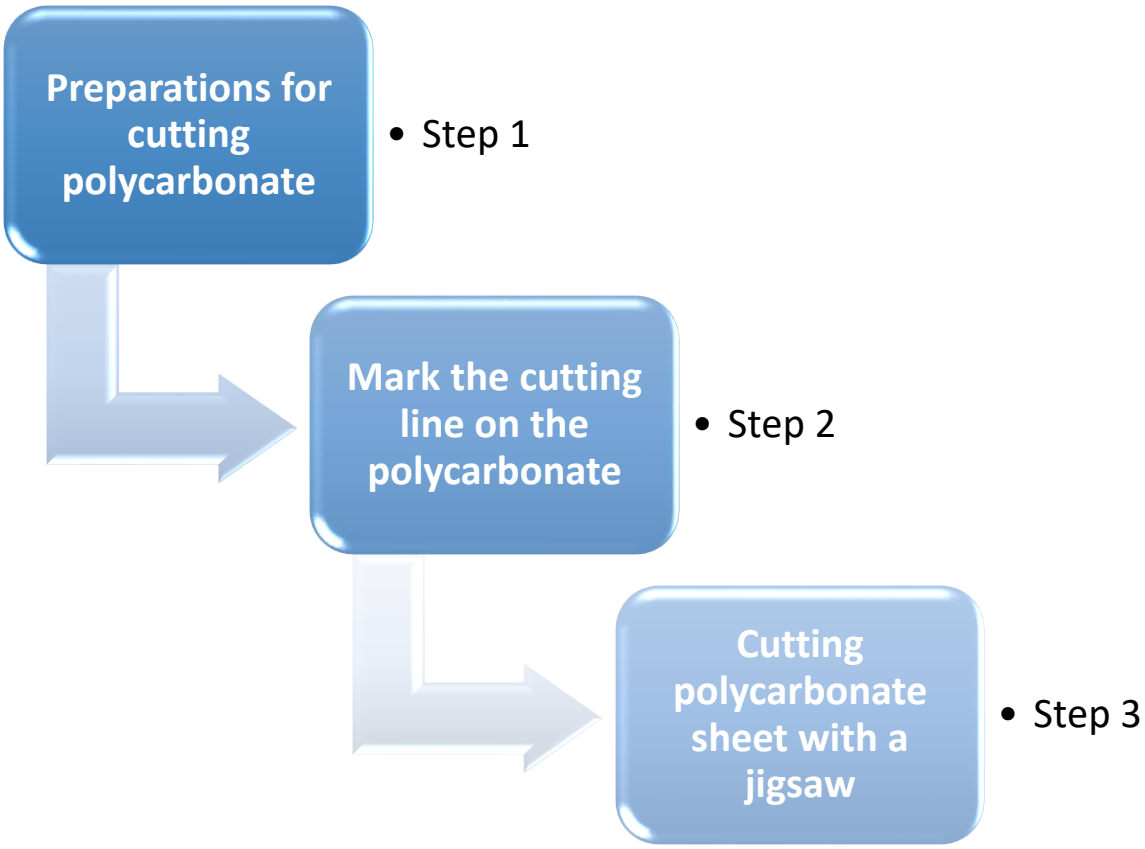
It is usually utilized in conductor applications and may be used as another to copper.

Manufacturing Process

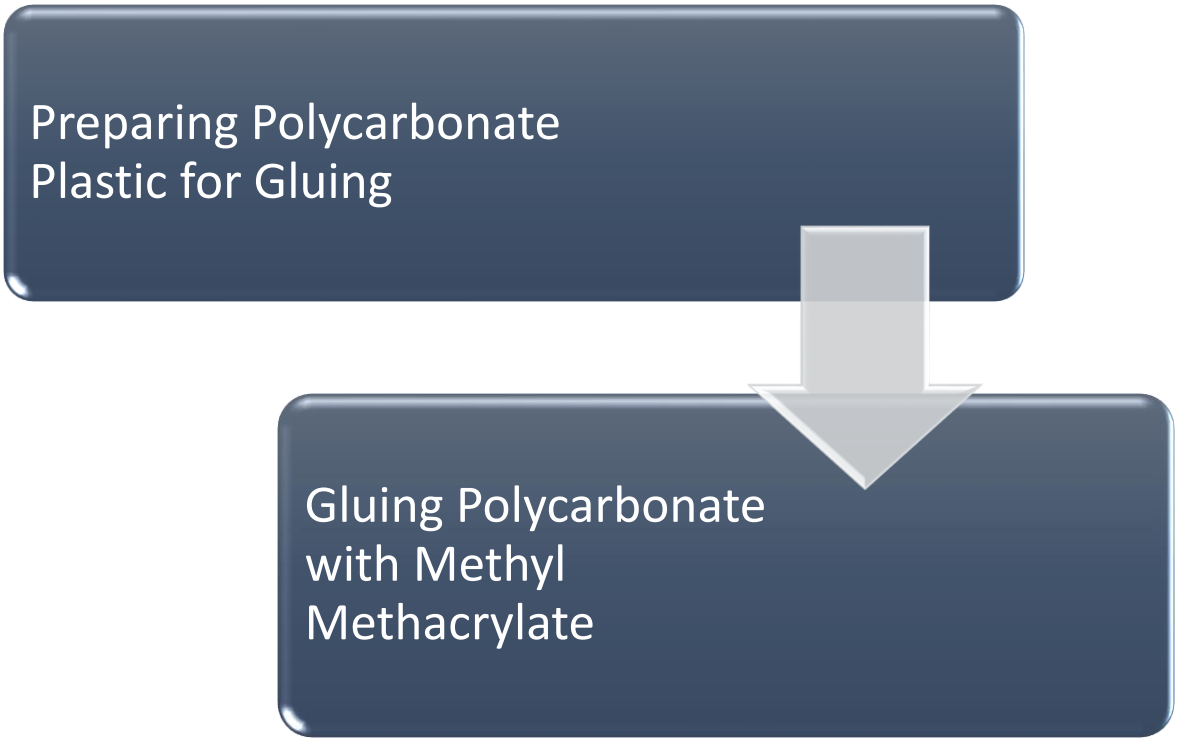
FLOWCHART



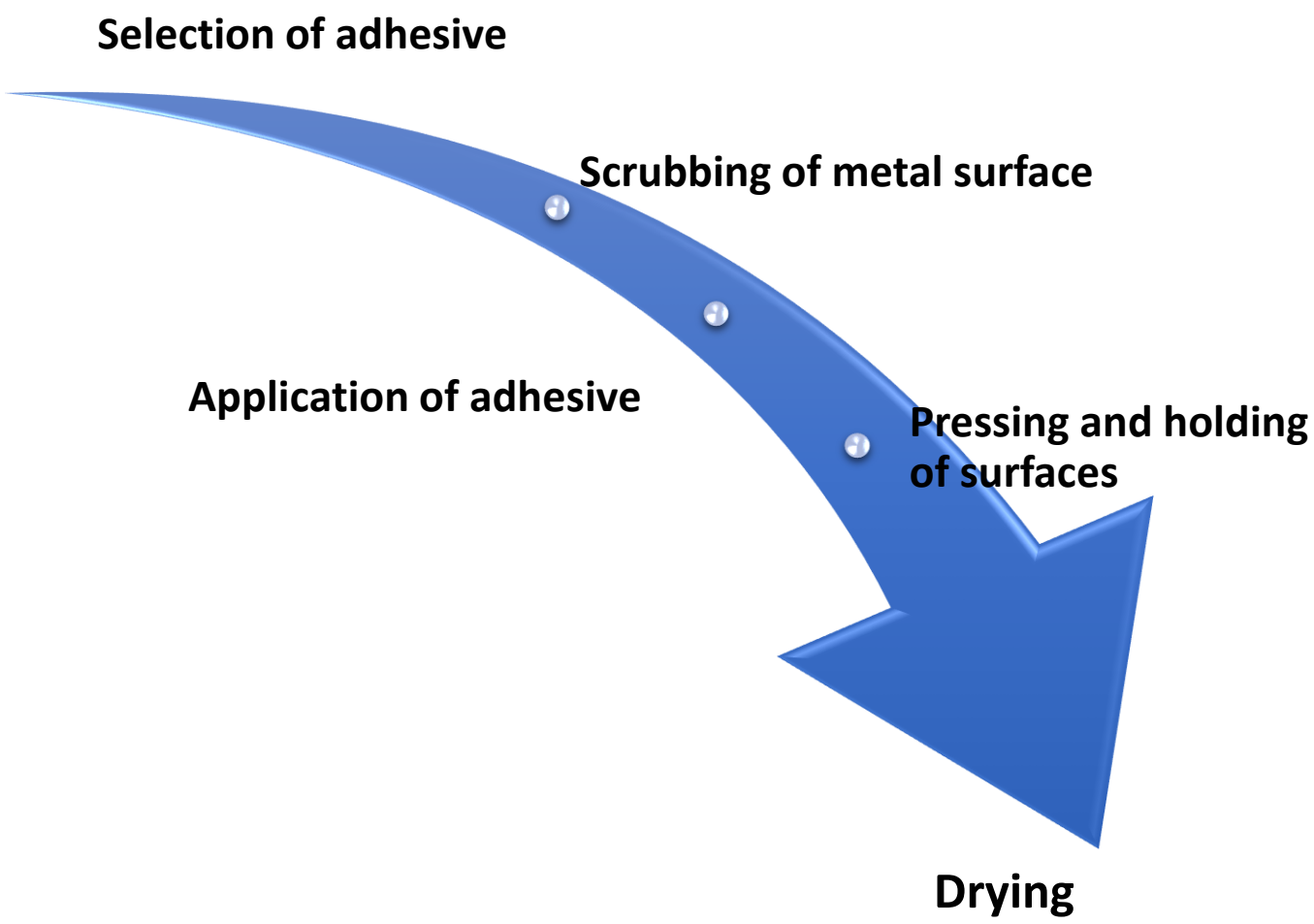
Steps for the processing of Setting Polycarbonate Sheet



Process for attaching polycarbonate sheet with the inner body of bag



Process for attaching leather sheet with the outer body of bag

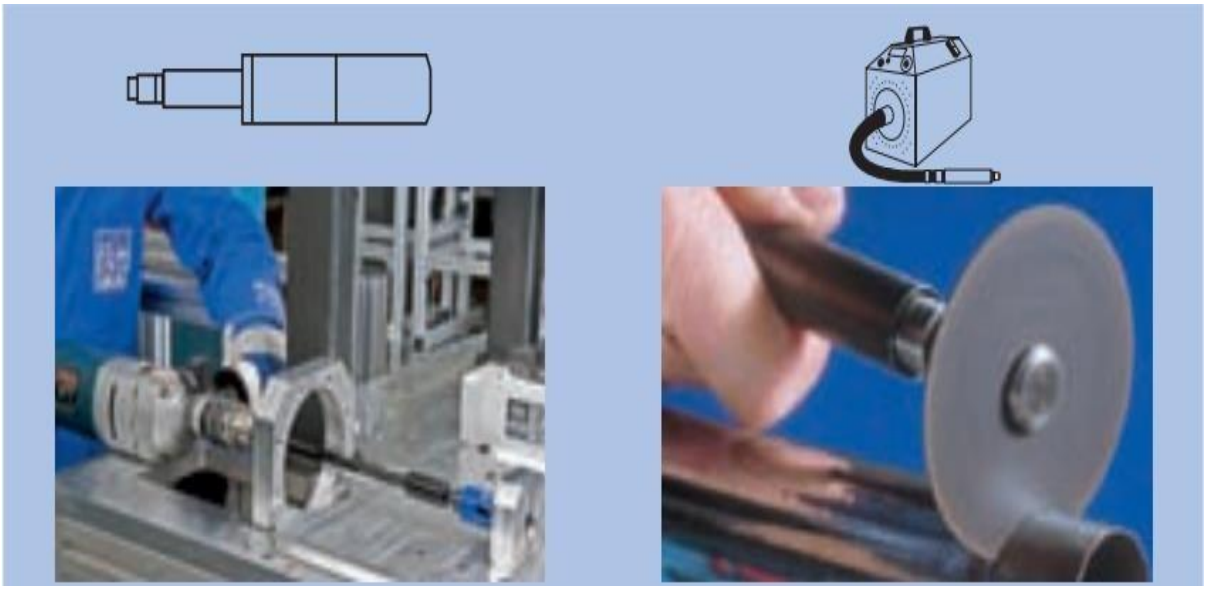


DETAILED DESCRIPTION OF MANUFACTURING PROCESS

Step-1

ABRASIVE CUT-OFF AND CUT-OUT WORK

An Abrasive cut-off and cut-out work which is normally used to cut hard materials, like metals, tile, and cement. The cutting activity is performed by a grating plate which is like a slight pounding wheel. Here In this interaction, we will cut the part from gentle Aluminium sheet, so we can utilize the cut parts for making the lower and upper box of the specialist sack followed by welding.



POINT TO NOTE:- Here we will cut the sheet 2-3 mm more than the required length and we can make them of accurate length later on.

Step-2

MAKING HOLES FOR THE SCREWS

As we need to append pivots to permit the two gentle Aluminium boxes which we will fabricate to turn, which are principle parts of our item. We will require openings for the screw. We will require openings for the pivoted screw additionally which we will use for polycarbonate sheet cover for the lower box. In this way, for that we need to make the openings at the necessary position which we will do utilizing the TAP and DIE instrument.

Step-3

DEBURRING

Deburring is a material change measure that eliminates sharp edges, or burrs, from a material, and leaves the material with smooth edges. In straightforward words, it's anything but a cycle that eliminates developed burrs and different defects from a completed surface. A burr is an edge or space of unpleasantness delivered during the cutting of metal parts or materials.

- Deburring of edges and patterns
- Chamfering
- Removing streak from castings

In this cycle we will eliminate the sharp edges from the material that we will get subsequent to cutting the sheet in various pieces of the necessary length.

Presently we will check a few focuses at the necessary length on the cut parts so it gets simpler for us to discover where do we need to weld the various parts.

Step 4

PREPARING WELDING JOINT AND SURFACE

Joint readiness is a more specialized term utilized in the welding business to depict how you plan metal for welding.

- Chamfering
- V-crease readiness
- Grinding out contract openings
- Preparation of fix welds

Surface readiness can be characterized as steps as well as strategies to be followed preceding welding pointed toward guaranteeing (related to every one of the components of a certified welding method) sound welds.

- Removing oxide skin
- Cleaning
- Removal of pollutants without huge dimensional changes

STEP – 5

WELDING USING TIG METHOD

TIG—i.e., tungsten inert gas—welding is highly versatile, enabling welders and construction workers to join a wide range of thin and small pieces of materials. It uses a non-consumable tungsten electrode to heat a piece of metal and can be applied with or without using a filler metal. A filler metal is sometimes used, but some welds, called as fusion welds, or autogenous welds do not require its implementation

TIG welding is used in all industrial areas but is especially utilized for high quality metallic welding processes.

The weld area and electrode are being protected from oxidation and other atmospheric contamination by an inert shielding gas which may be argon or helium.

The TIG process gives the operator greater control over the weld than competing processes such as gas metal arc welding and shielded metal arc welding, allowing for higher quality and stronger welds. moreover, welders require highly specialized and sophisticated quality of training to ensure they achieve proper accuracy and precision.

welding offers significant amount of control during the welding procedure and produces, aesthetically pleasing, precise and strong, welds.

Precautions during tig welding:

- UV, IR radiations are given that are harmful to cornea and retina in the eye. welders must use high quality of eye protection goggles.
- Skin reacts to exposure of high levels of UV radiation from TIG welding which is highly dangerous. Welder must wear welding suit.

Step-6

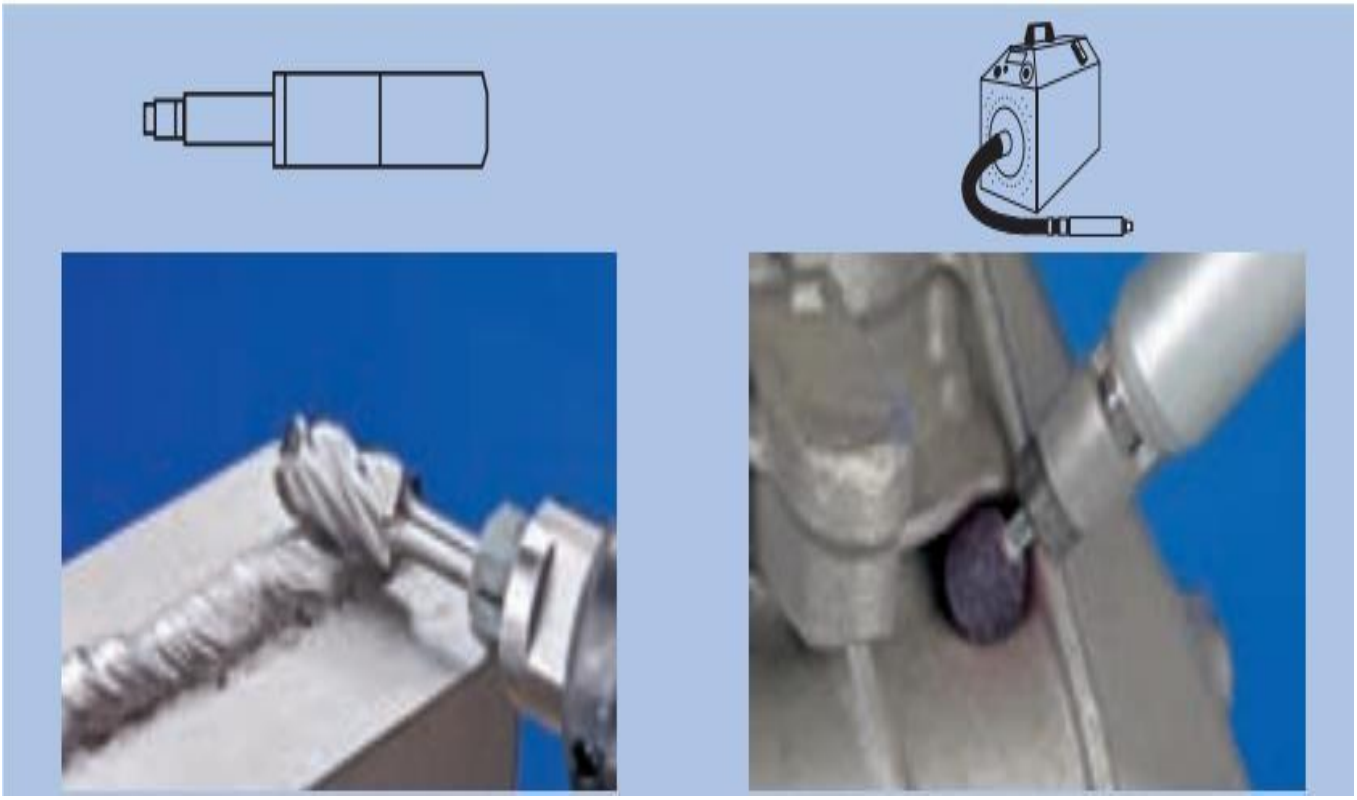
WELD DRESSING

Explanation –

The process of weld dressing allows you to grind back excessive weld, giving it the same finish and grain direction as the surrounding areas.

- Smoothing weld seams
- Removing defects
- Cleaning
- Levelling

- Reworking repair welds.



Step 7

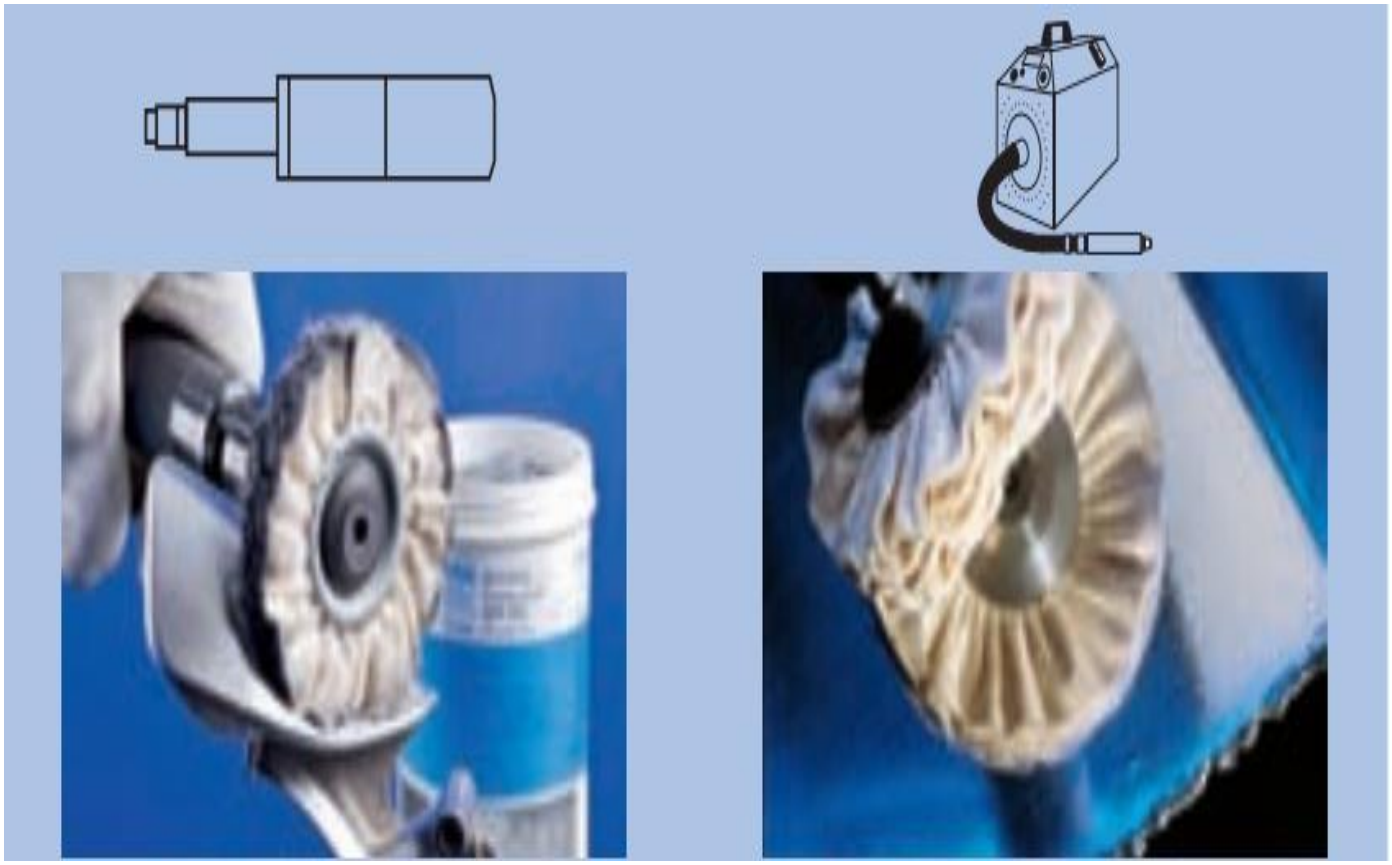
Polishing

Polishing is the way toward making a smooth and glossy surface by scouring it's anything but a substance activity, leaving a surface with a huge specular reflection.

- Polishing small surface areas
- High-gloss polishing

In this process we will polish the surfaces that we will get after the

completion of welding process.



Step 8

SETTING THE POLYCARBONATE SHEET

Steps to follow –

1- Prior to cutting polycarbonate, set up certain provisions. We will attempt to make it sure that we will utilize a saw with a variable speed for the better yield. Have a board that can uphold the polycarbonate sheet during sawing, so we will likewise organize that board or such surface. We should every one of these thing by wearing wellbeing goggles when slicing to forestall any little chips of polycarbonate from

getting at us.

2- Imprint the cutting line on the polycarbonate

Here we will check the cutting line of required lengths at the necessary spot. These tips will assist with keeping away from any scratches.

3- Cutting polycarbonate sheet with a jigsaw

- Here we will cut the sheet of various size as indicated by the necessity. We will run the saw at medium speed and let the saw move easily through the polycarbonate sheet. We need to not squeeze the saw but instead let the saw accomplish the work and control the throughput.
- We will guarantee that the sole of the jigsaw stays level on the polycarbonate sheet.
- Furthermore, in this way we will complete the cutting cycle of both gentle Aluminium and polycarbonate sheets.
- Presently we should glue the polycarbonate sheet at the necessary put on the produced boxes of gentle Aluminium sheet, so for that we will utilize distinctive interaction which we have indicated ahead.

Process for attaching polycarbonate sheet with the inner body of bag –

Getting ready Polycarbonate Plastic for Gluing –

Before polycarbonate can be stuck, guarantee it is liberated from pollutants. In the first place, wash the polycarbonate with tepid water to eliminate any earth, sand, or other hard materials that could harm the polycarbonate by scratching against it. Then, at that point, consolidate tepid water with a modest quantity of

dish cleanser. Plunge a spotless wipe or fabric into the combination, and delicately rub the polycarbonate to eliminate any little pollutants. Then, at that point, wash the polycarbonate once more. Now, your polycarbonate will be prepared for sticking. Thus, here we will follow this progression for the purging of the sheet that we need to glue.

Step

Sticking Polycarbonate with Methyl Methacrylate

The most normally prescribed approach to combine polycarbonate is with methyl methacrylate since it's anything but a solid, tough bond. A few clients have discovered that on the off chance that they attempt to precisely pull polycarbonate separated, the unaltered polycarbonate will break before the security will! In any case, this item is fairly specialty, and may not be promptly accessible except if the client orders it online early.

While applying methyl methacrylate, we need to ensure we're either outside, or in a very much ventilated room. The vapor from methyl methacrylate can be harmful whenever breathed in high fixations.

Thus, for the solid cycle we need to follow these means:

1. Take a perfect piece of polycarbonate, and gently apply the methyl methacrylate to the space we'd prefer to join.

2. Let the methyl methacrylate splash briefly. Give it a light tap with a spotless piece of metal or wood – if the plastic feels tacky, it's prepared to bond.

3. Attach the polycarbonate to another piece of polycarbonate, and hold them firmly until they can uphold their own weight. The circumstance may fluctuate, yet this should require around five minutes.

4. Once the polycarbonate can uphold its own weight, let it set for 48 to 72 hours. Then, at that point, it ought to be completely joined.

Thus, in this way appending the polycarbonate sheet on the upper box of gentle Aluminium sheet will be completed.

Presently, we need to connect the manufactured cowhide on certain parts of external body and particle some internal segments of body thus, to give it a superior look. To do this thing we should follow the means which we have referenced underneath.

Process for attaching leather sheet with the outer body of bag –

E6000 Craft Adhesive (Best Multi-Purpose Adhesive)

The E6000 glue is an overall paste with mechanical grade strength that makes it conceivable to bond nearly everything from calfskin to metals, elastic, wood, pottery, glass, textures, vinyl, and everything in the middle. The E6000 make cement is a waterproof glue which makes handy solutions and bonds safely.

Make proper choice of glue utilized for the reason.

2) Step 2

Scour the metal surface with aluminium fleece or sandpaper. Doing so will fight off rust and give a more prominent surface region to the cement to sink into.

3) Step 3

Apply the picked cement to both the cowhide surface and the metal surface.

4) Step 4

Press and hold the cowhide and metal surfaces together. This should be done promptly on the off chance that you are utilizing a fast dry super paste item to keep away from the paste drying out.

5) Step 5

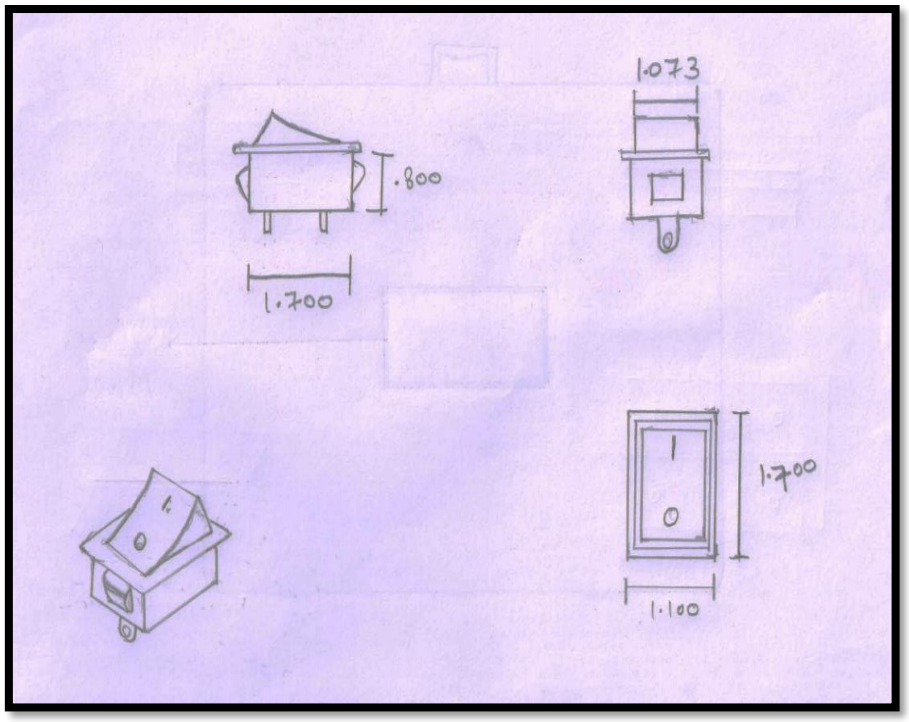
Hold the two surfaces together until a solid bond is shaped. The bond will be shaped rapidly with super paste and elastic concrete. In the event that you are utilizing a shellac stick, we'll need to consider around 72 hours of drying before bond is finished.

- Furthermore, in this way the way toward appending cowhide will likewise wrap up.

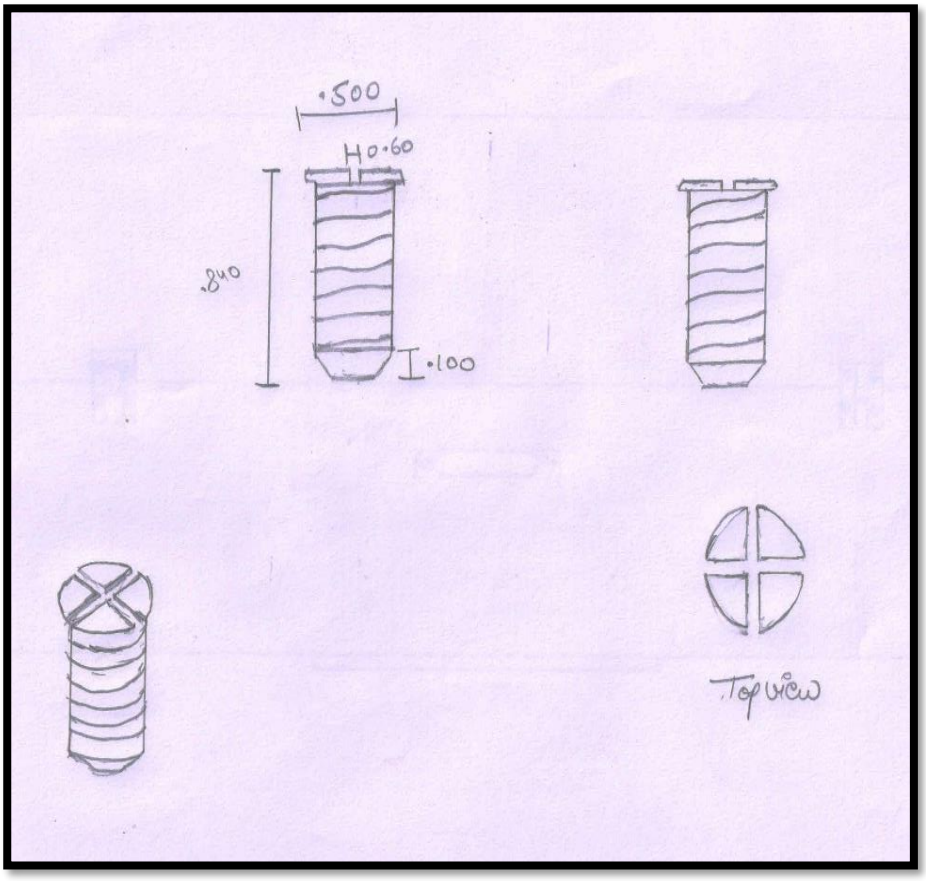
- Now we will join the pivot to the two boxes and polycarbonate sheet in the lower box. After that we will connect the handle in the upper box.
- After every one of these now we will join the lock to the crates utilizing screws.
- As we are additionally connecting LED bulbs clinched, so we will append the sunlight based plate on the upper surface by joining the polycarbonate around it for its insurance and within the sack we will append the drove bulbs under the security of polycarbonate sheet, so the bulbs and the sun oriented plate both will be ensured by polycarbonate sheet and appending the switch close to it will permit the client to turn it now and again according to necessity.

Also, in this way we will finish the assembling cycle of our item.

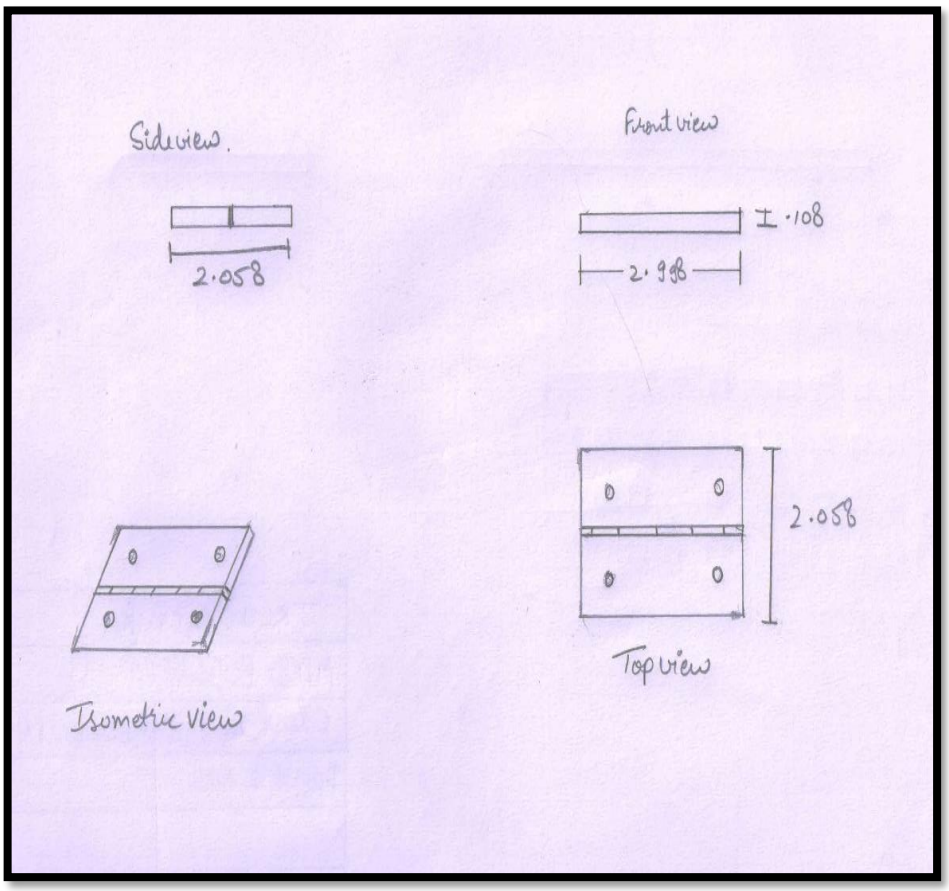
FREE HAND SKETCHES



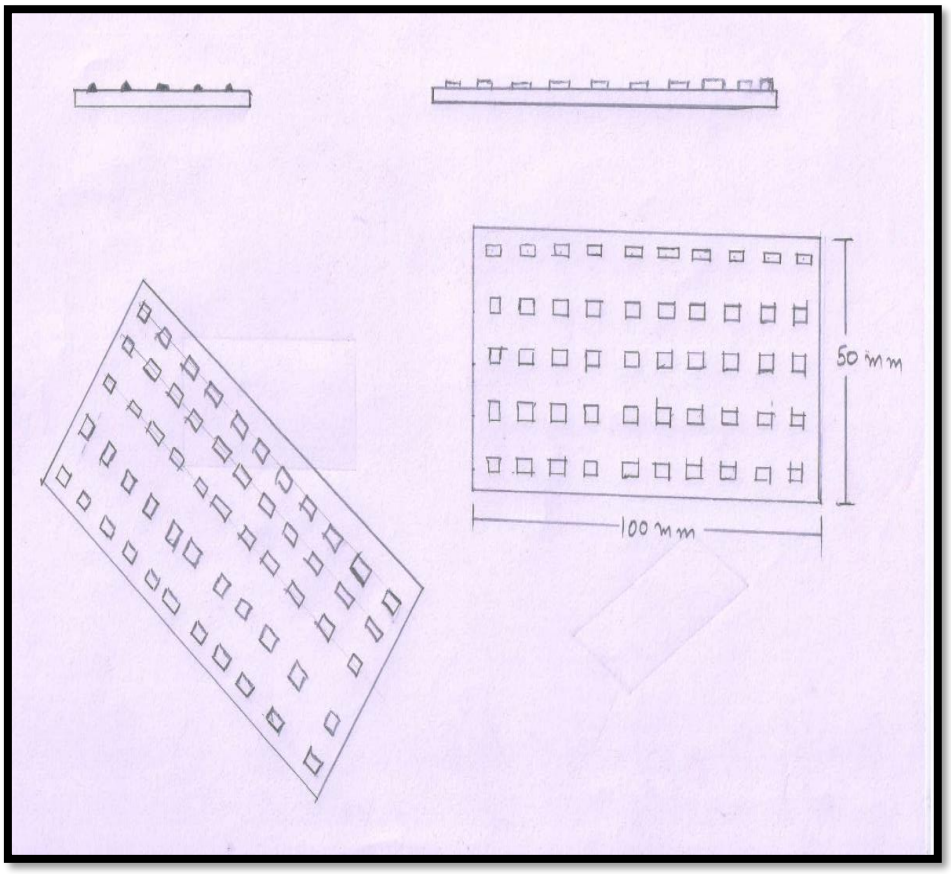
SWITCH



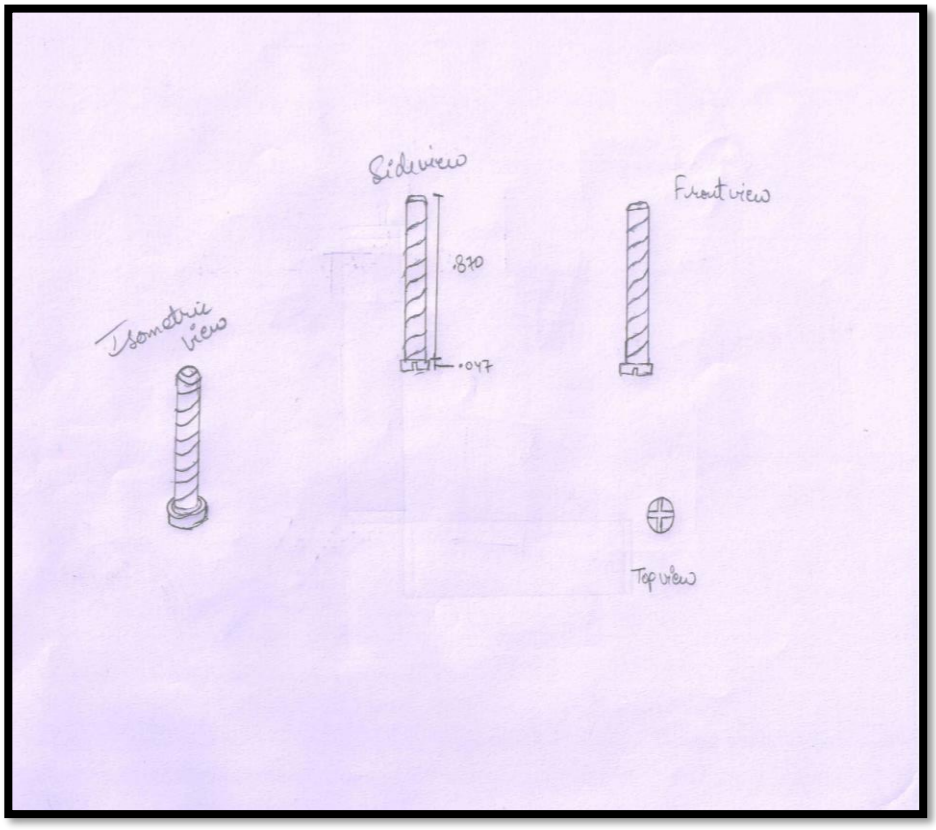
LOCK SCREW


Side view.
2.058
Front view
1.108
2.998
2.058
Top view
Isometric view

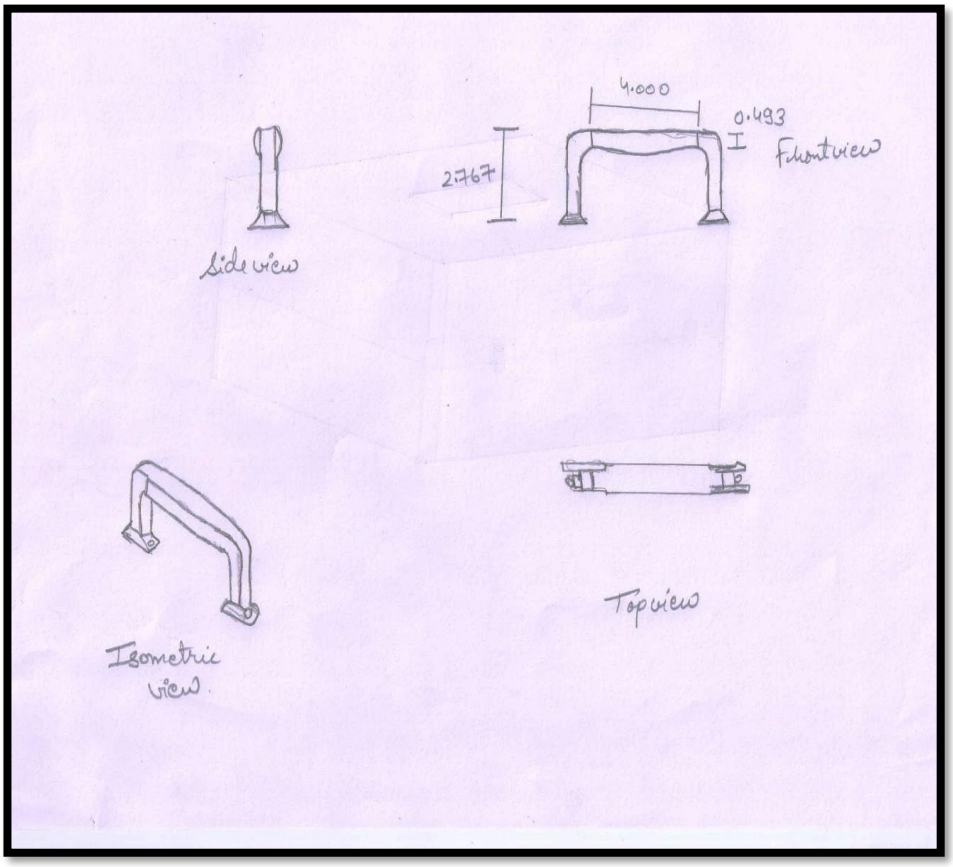
HINGES



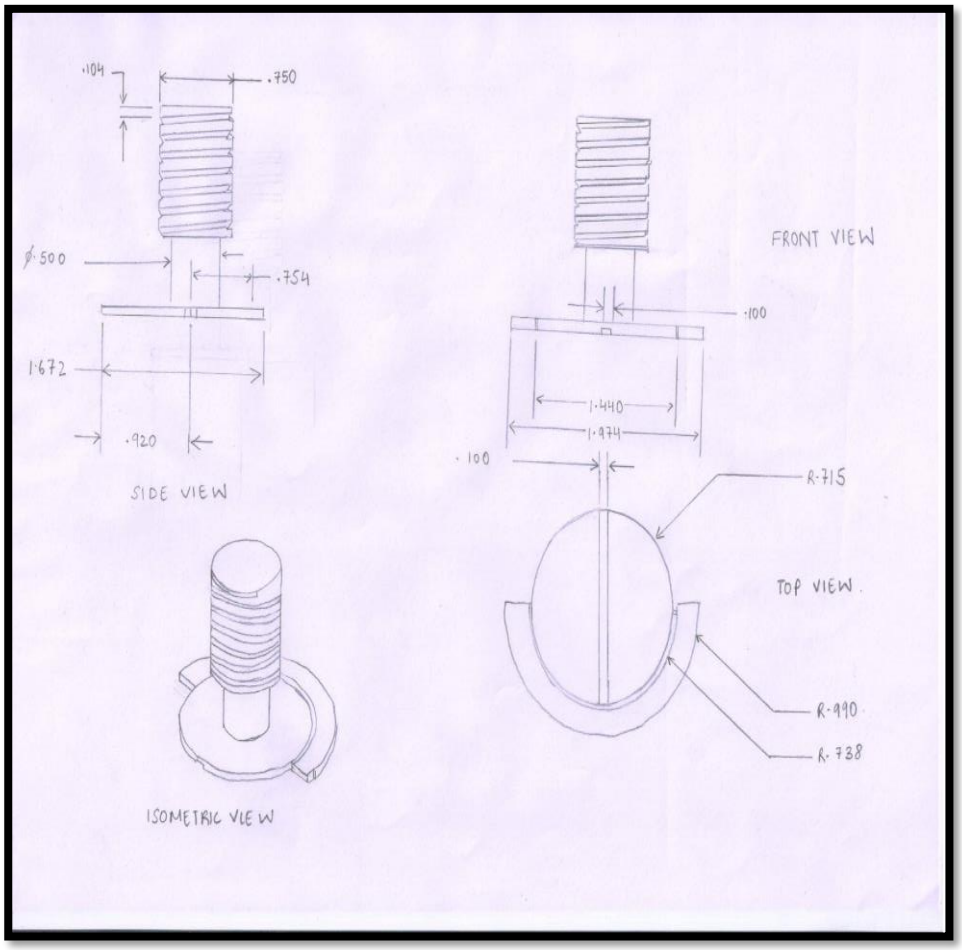
LED SHEET



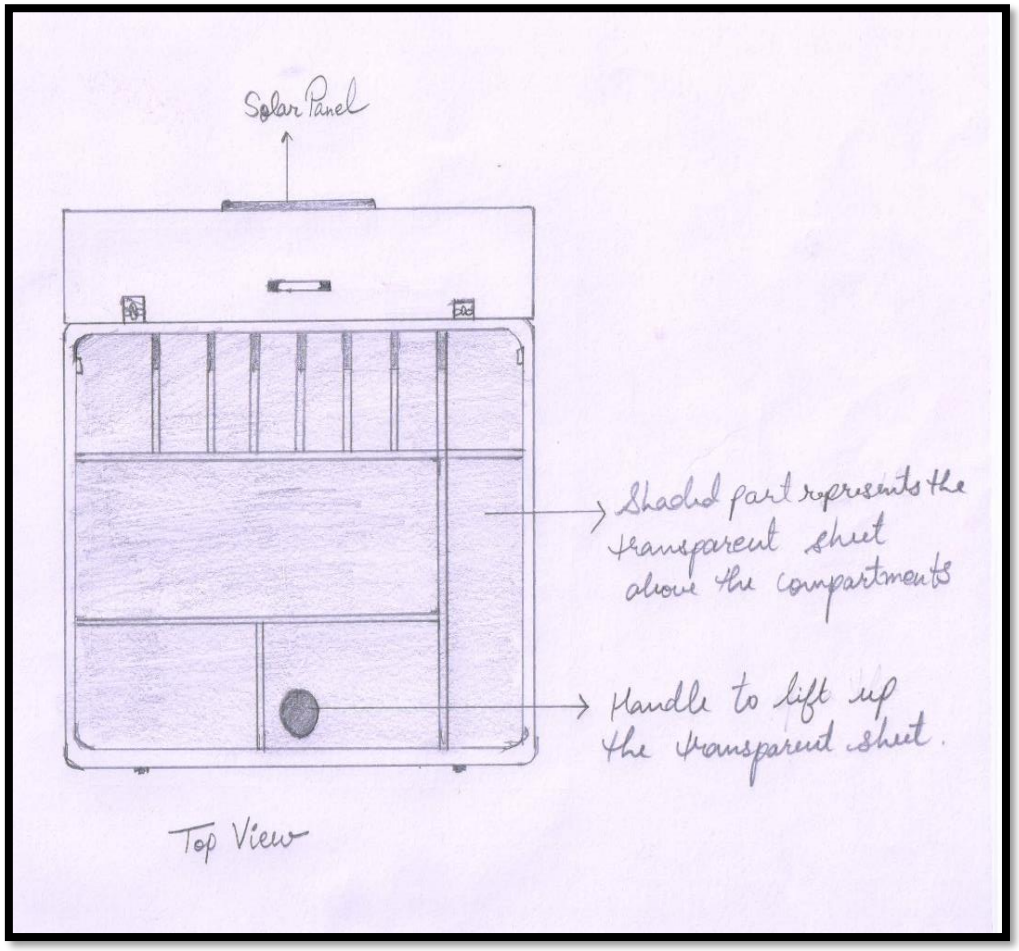
HANDLE SCREW



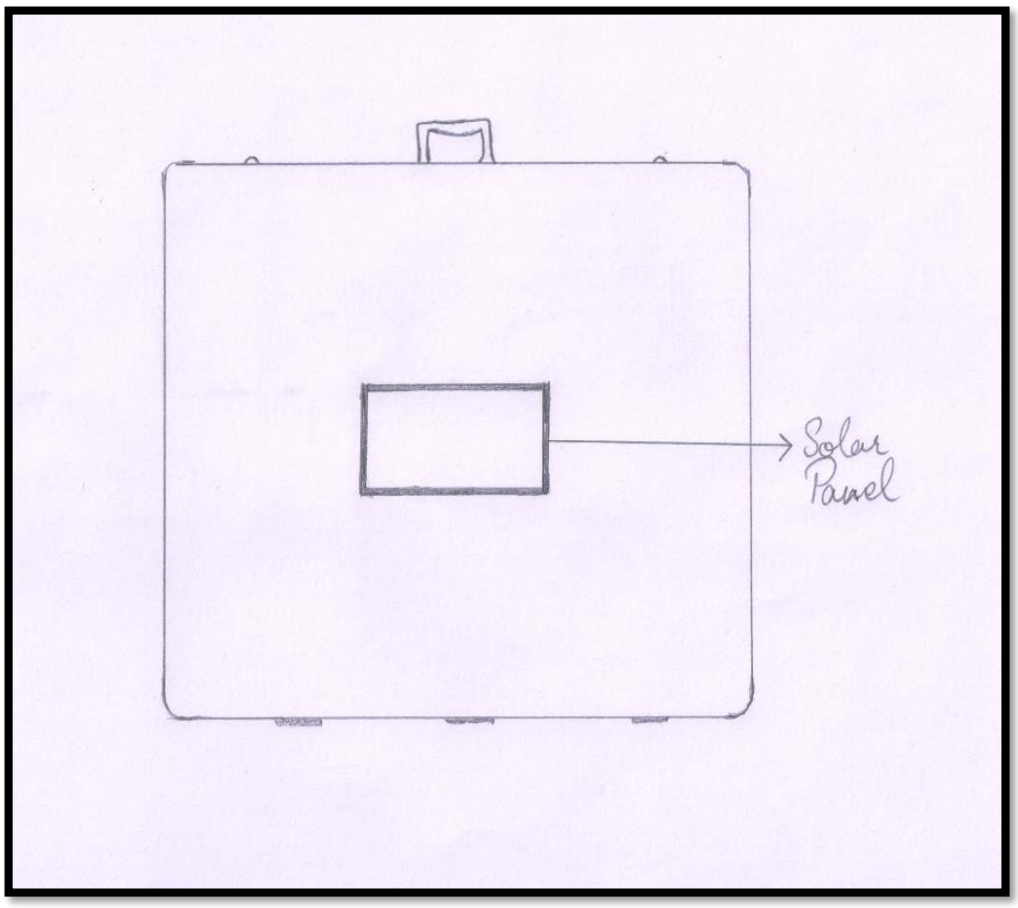
HANDLE



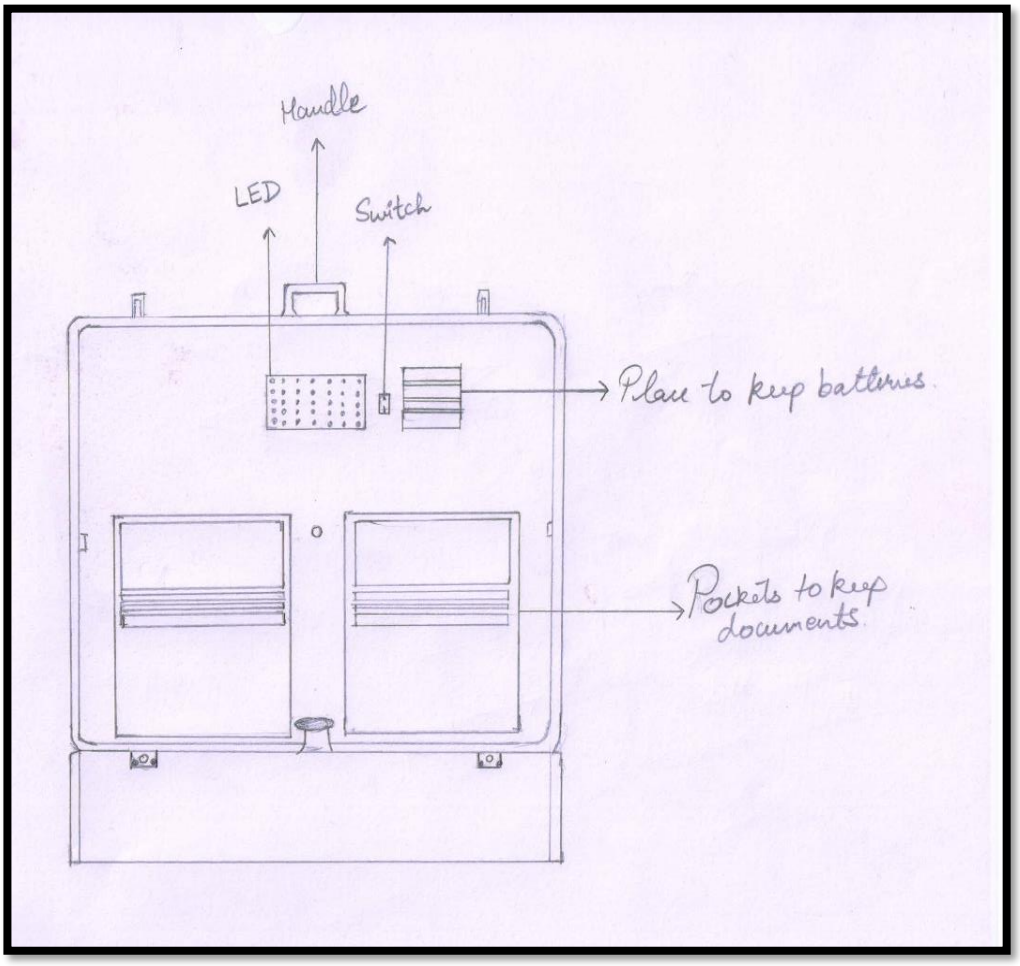
MOUTNING SCREW



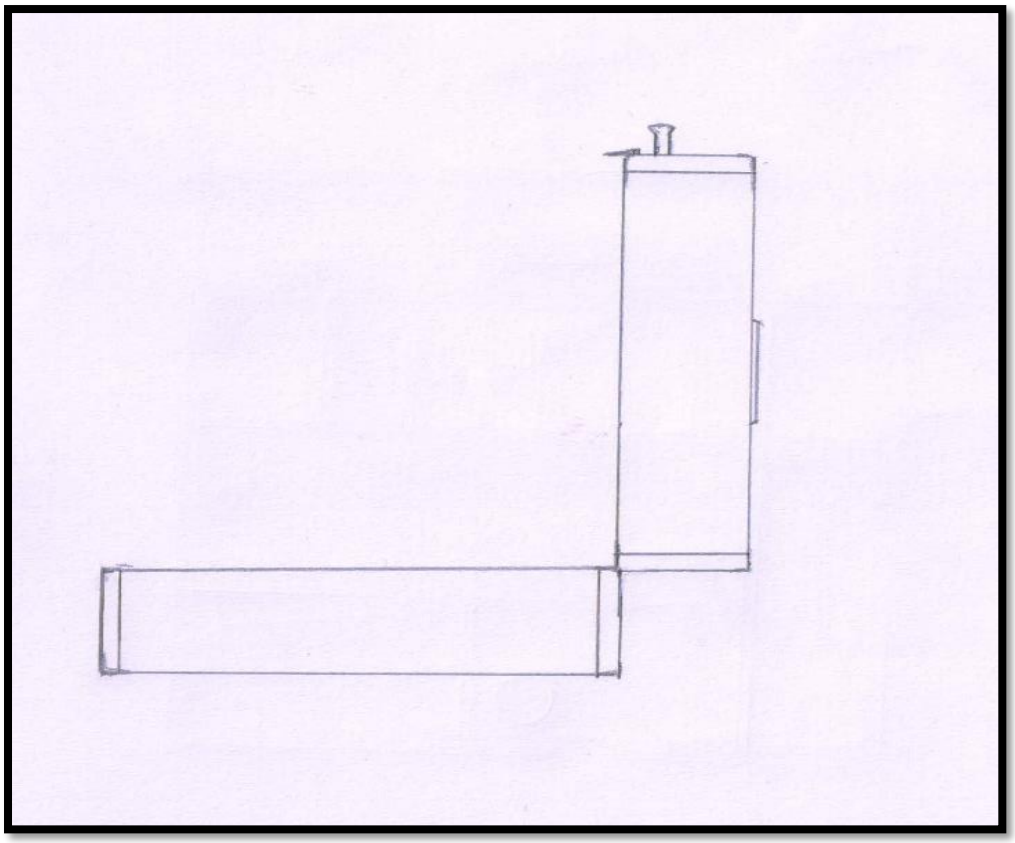
TOP VIEW OF THE OPEN BOX



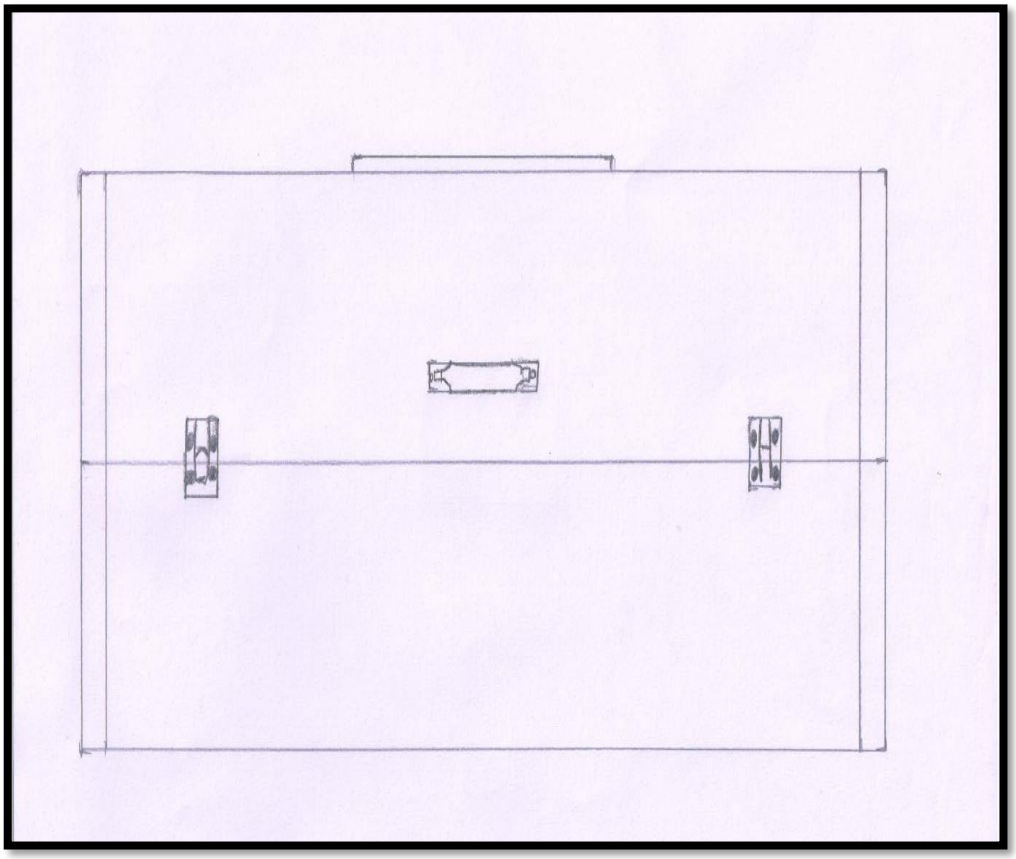
TOP VIEW OF THE CLOSED BOX



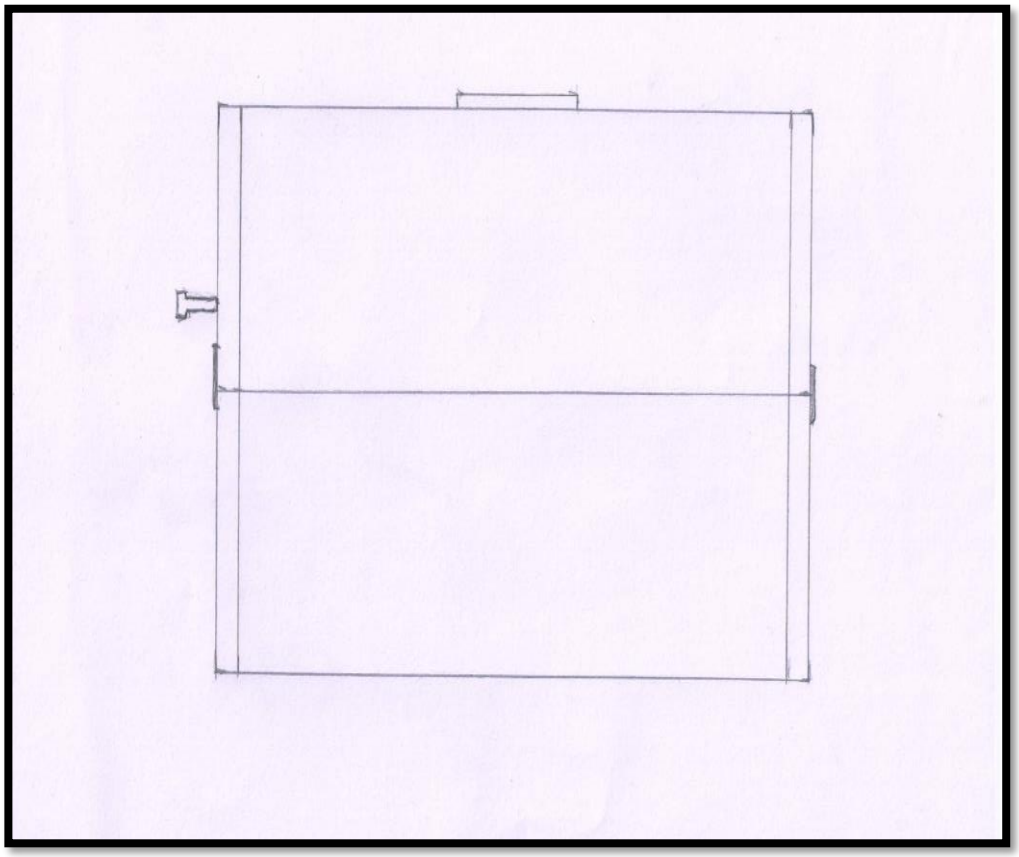
FRONT VIEW OF THE OPEN BOX



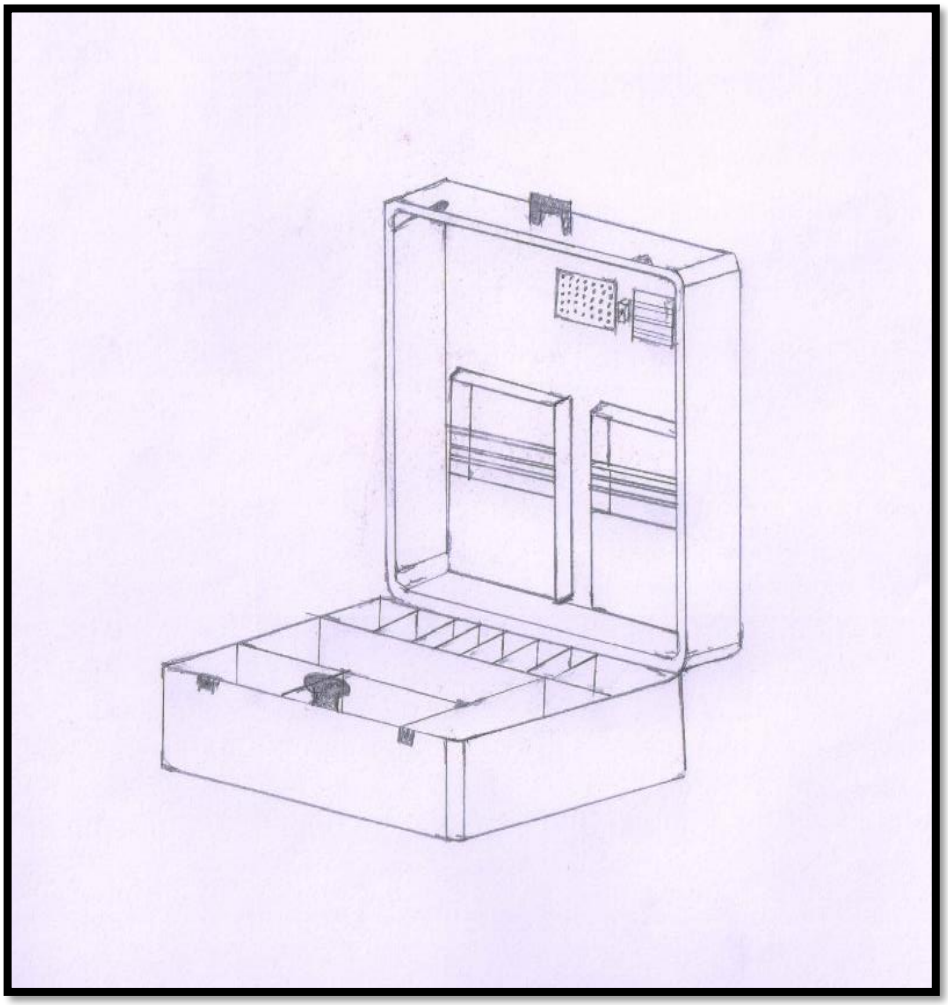
SIDE VIEW OF THE OPEN BOX



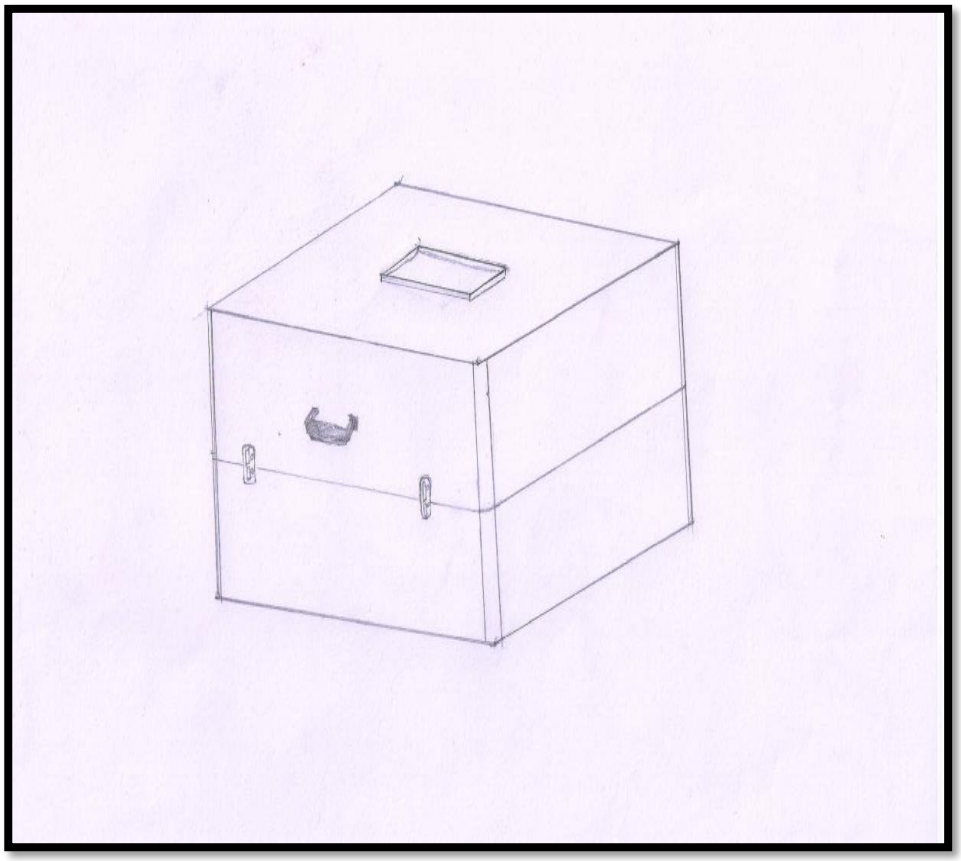
FRONT VIEW OF THE CLOSED BOX



SIDE VIEW OF THE CLOSED BOX



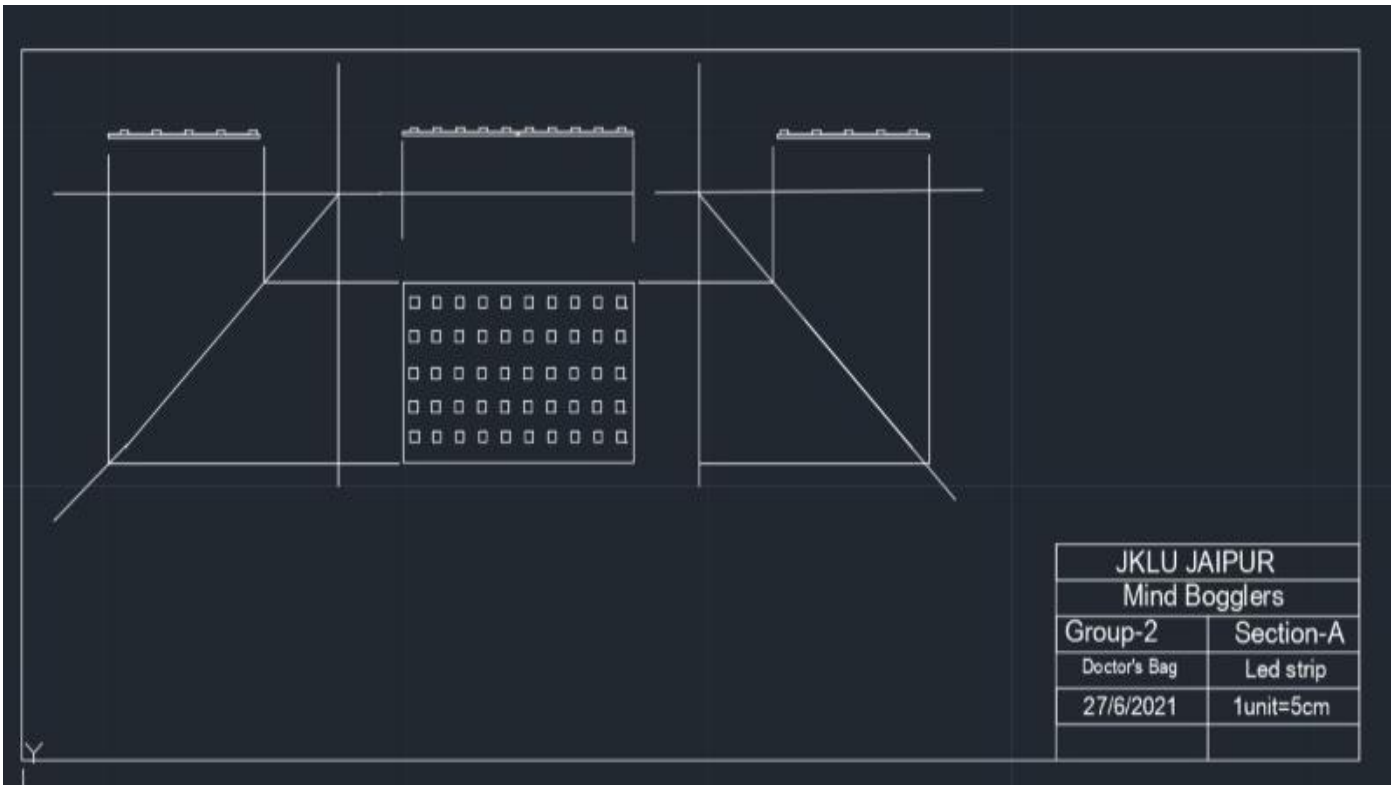
ISOMETRIC VIEW OF THE OPEN BOX



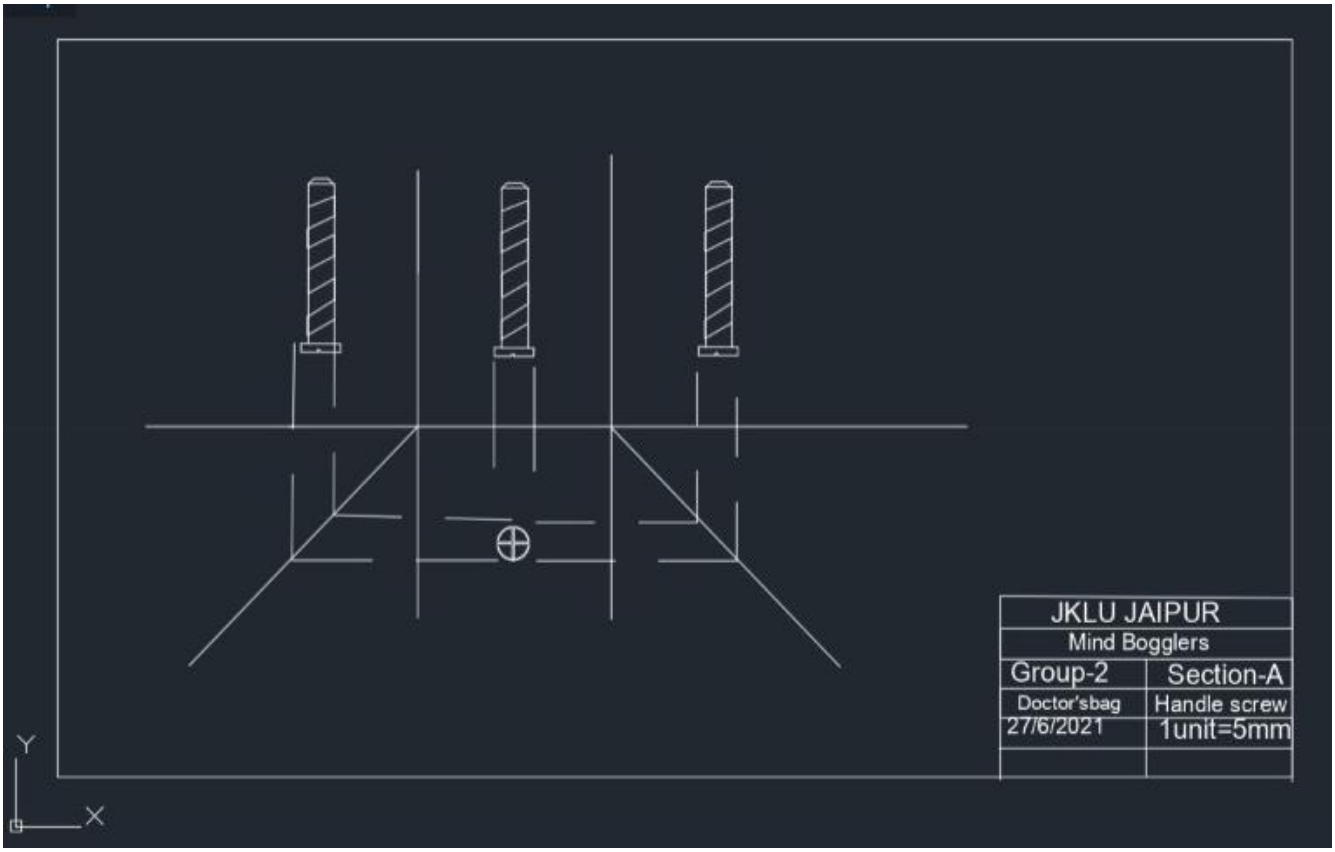
ISOMETRIC VIEW OF THE CLOSED BOX

AUTOCAD SKETCHES

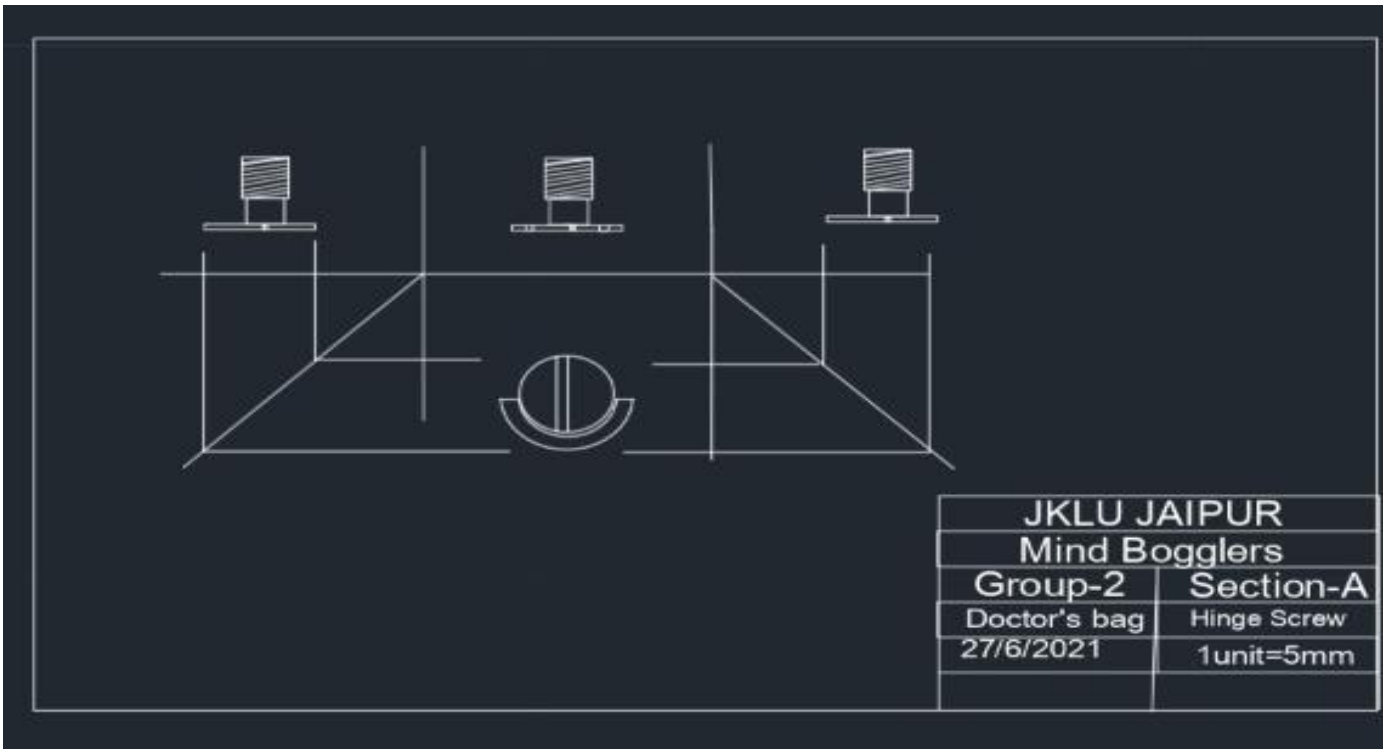
LED SHEET



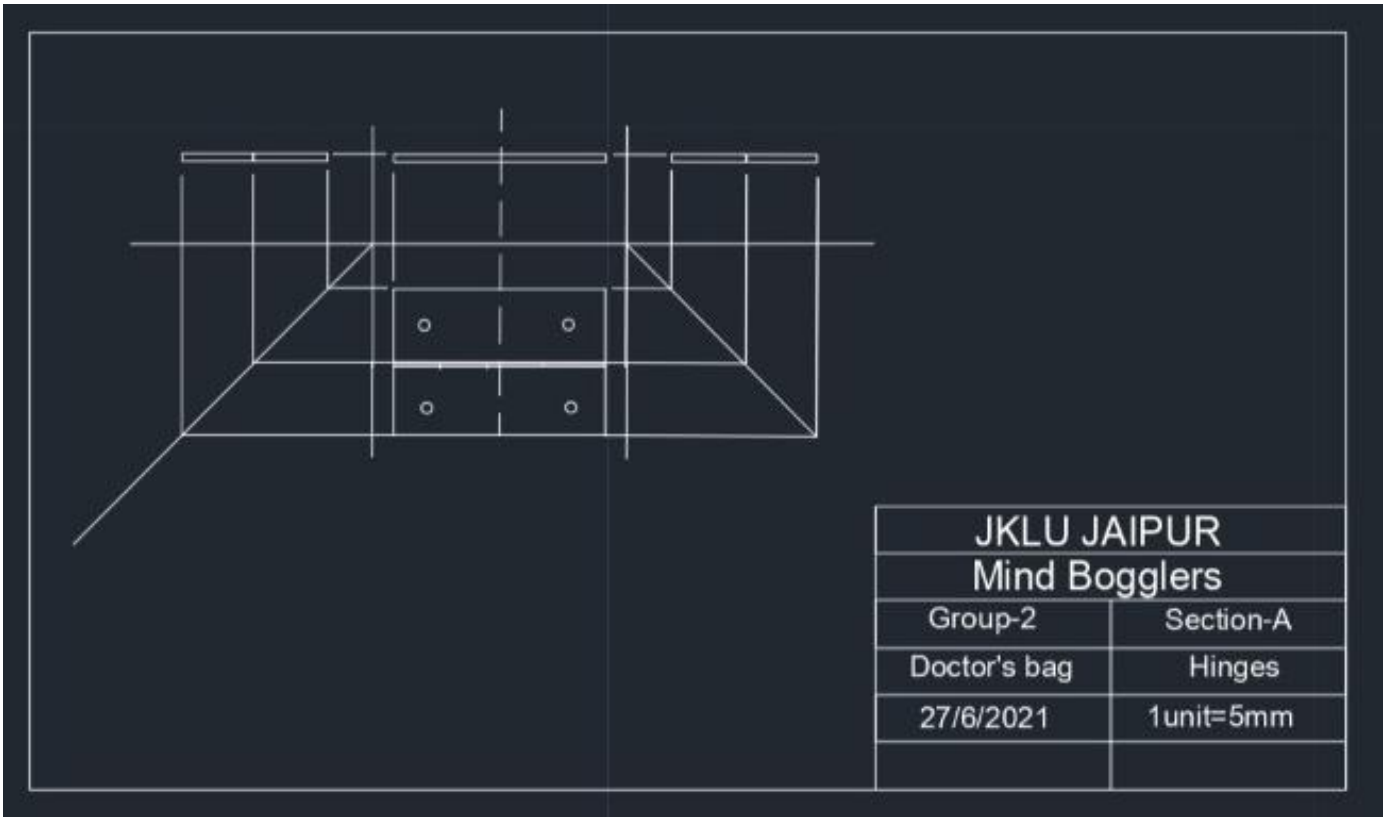
HANDLE SCREW



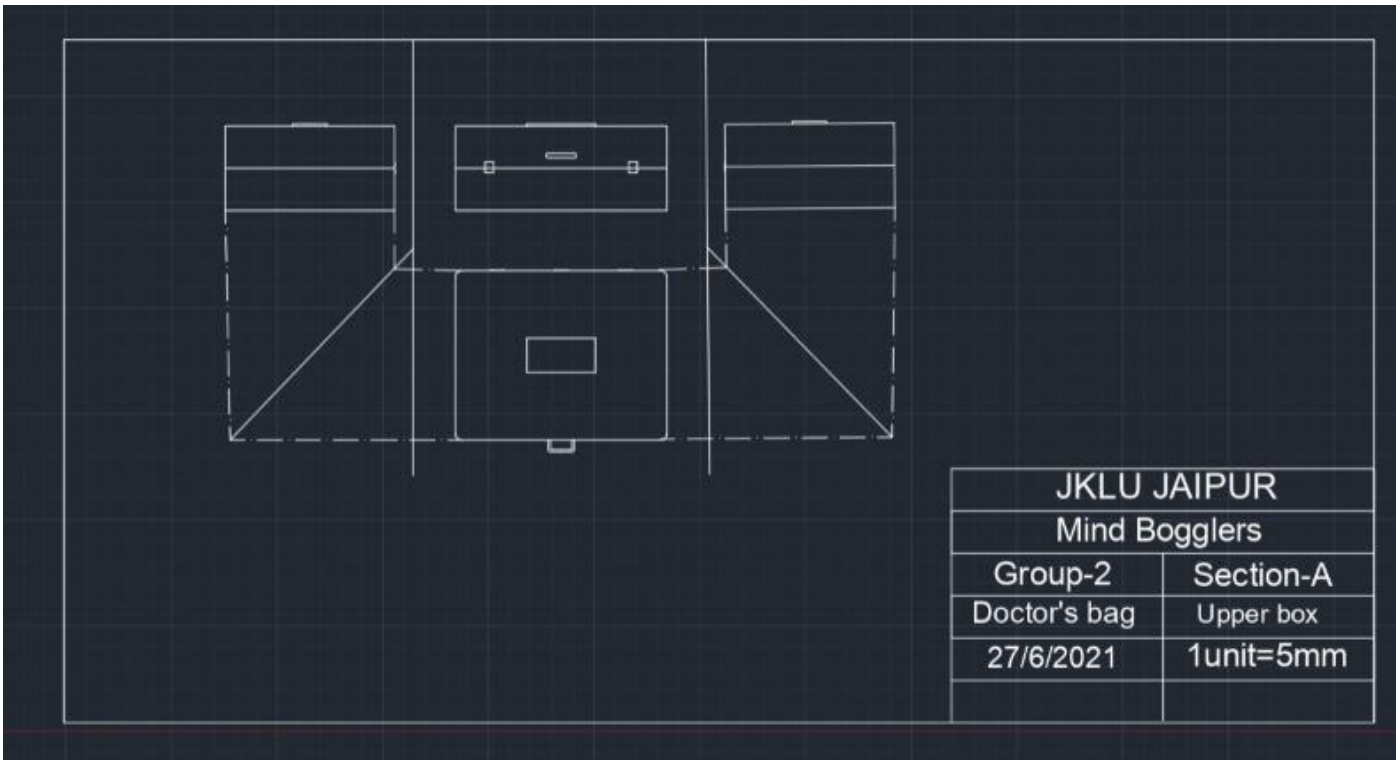
MOUNTING SCREW(HINGE SCREW)



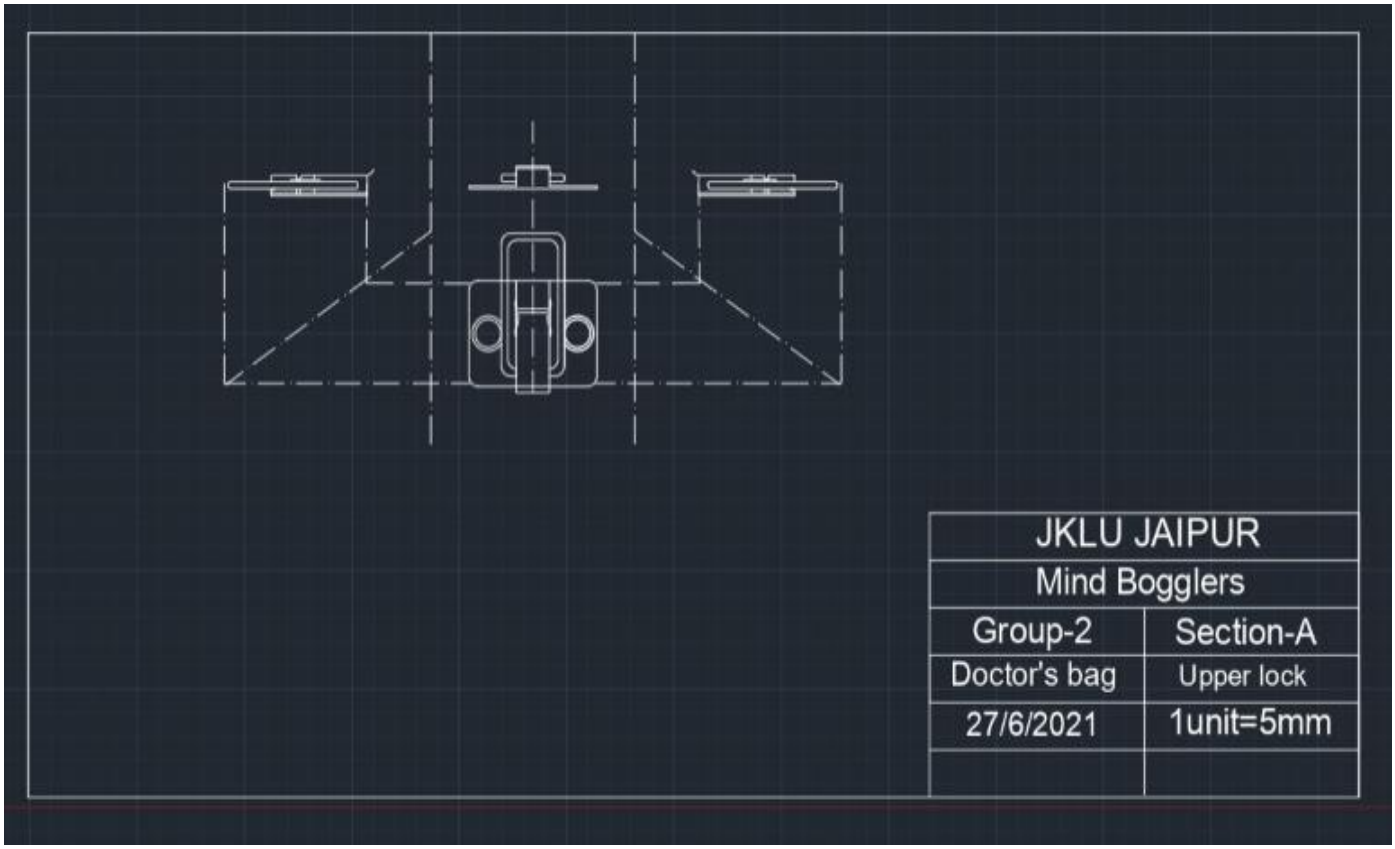
HINGE



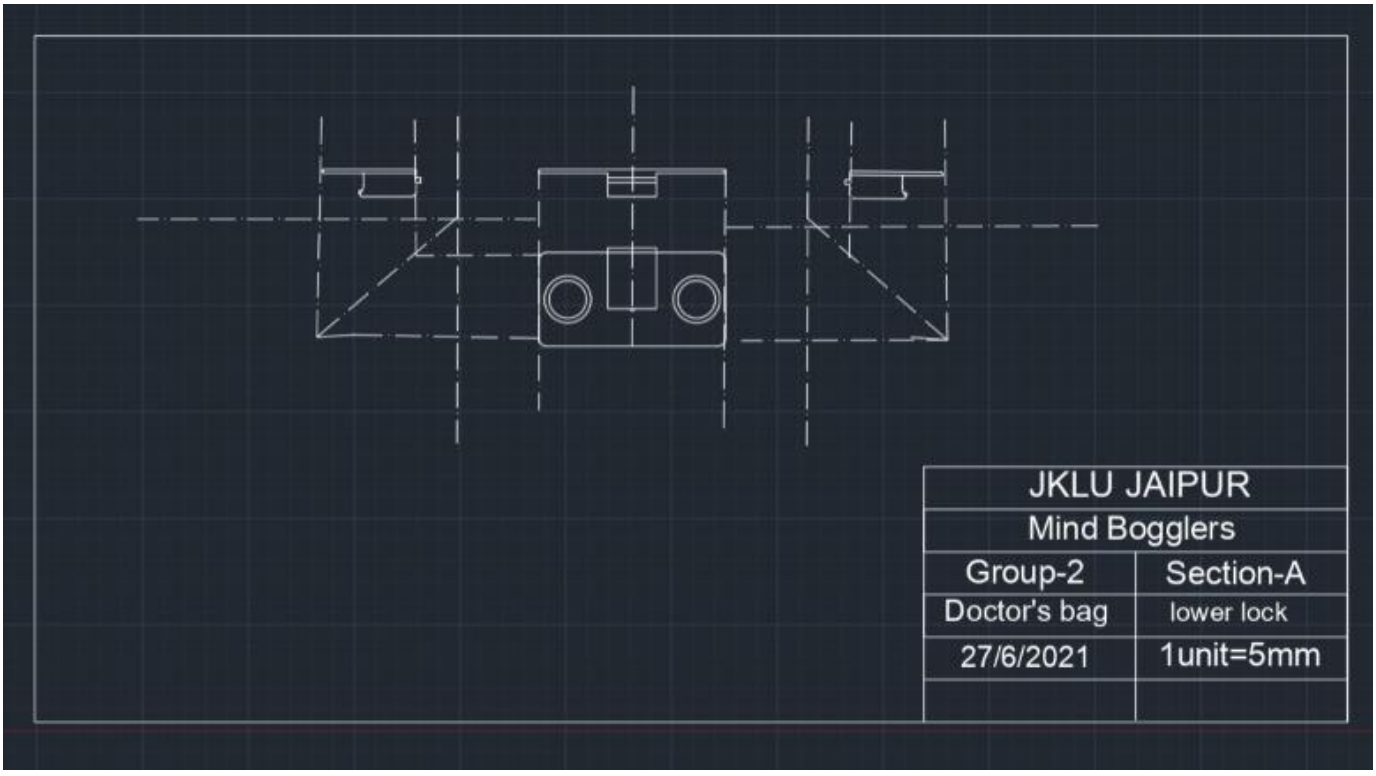
UPPER BOX


JKLU JAIPUR
Mind Bogglers
Group-2
Section-A
Doctor's bag
Upper box
27/6/2021
1unit=5mm

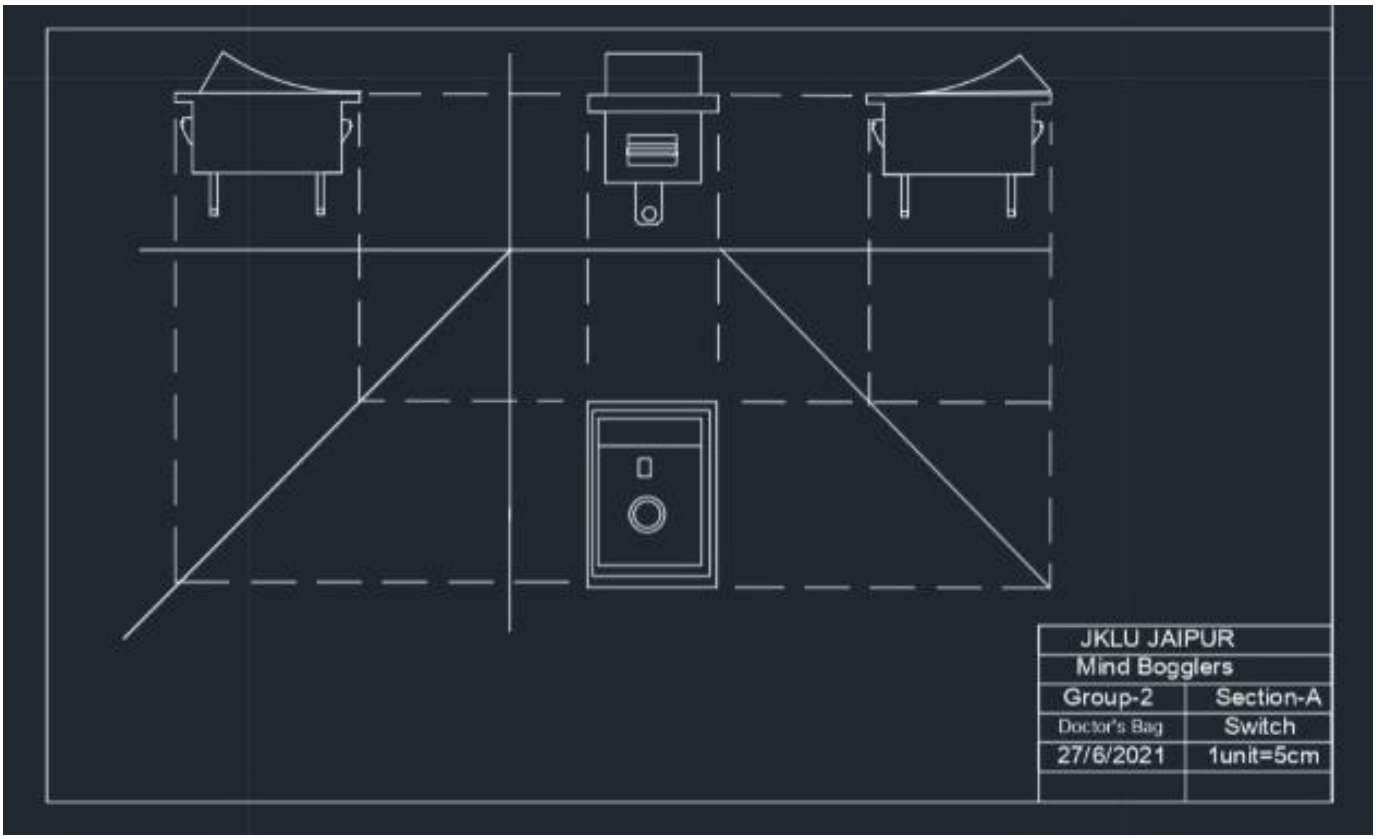
UPPER LOCK



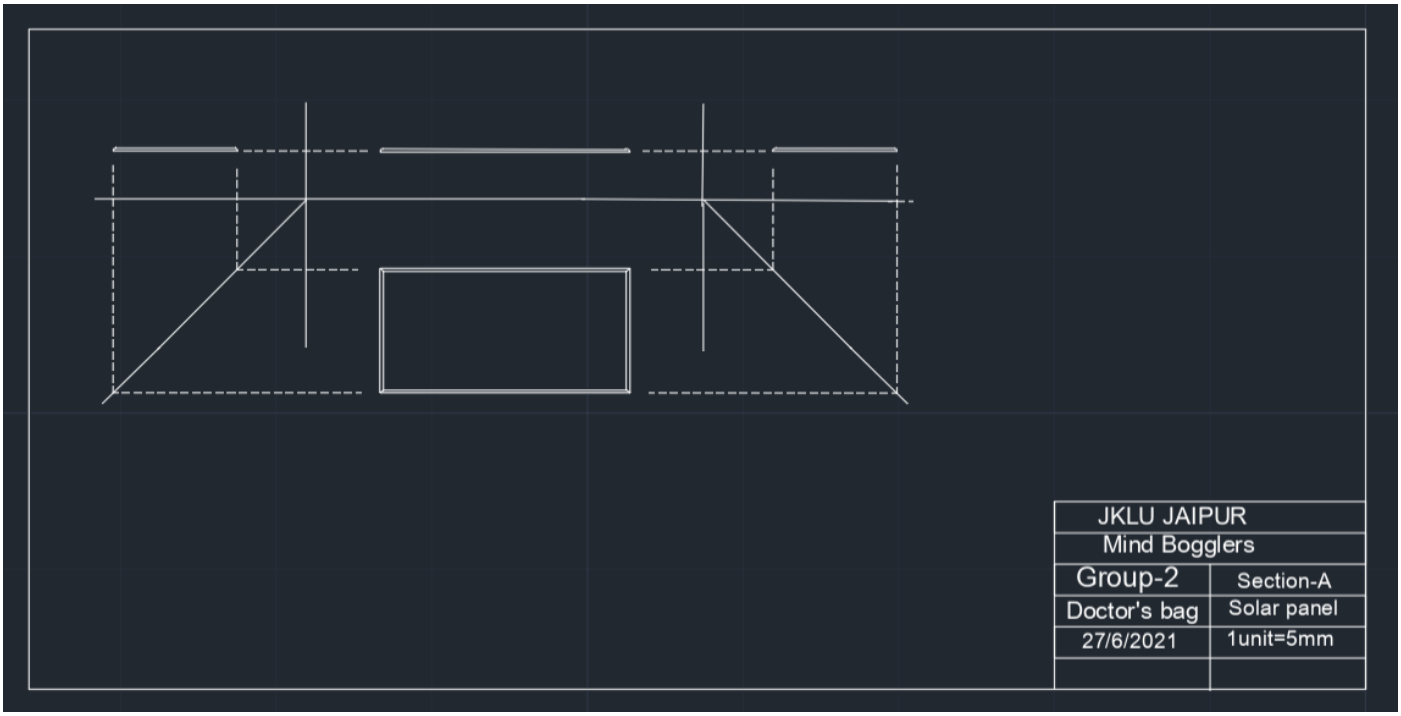
LOWER LOCK



SWITCH



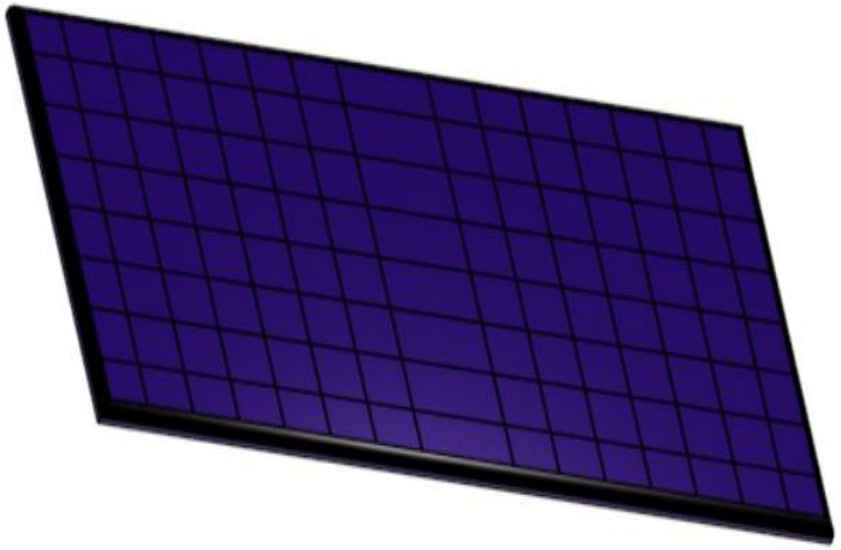
SOLAR PANEL



PRODUCTS AND THEIR 3-D VIEWS

SOLAR PANEL

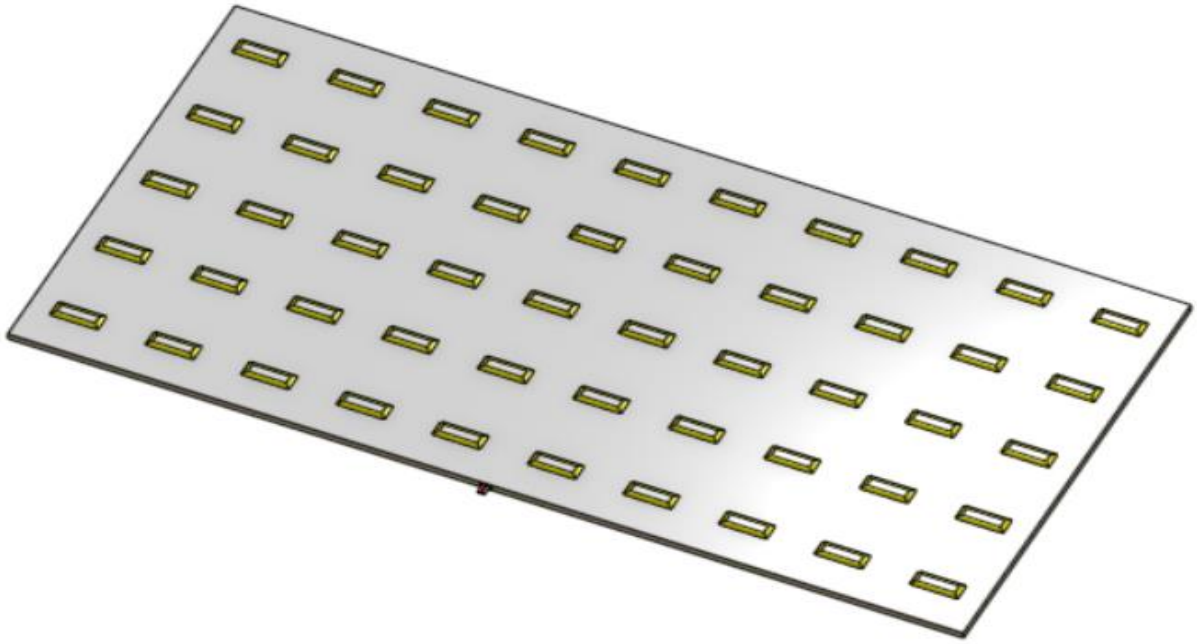
PRODUCT



3-D

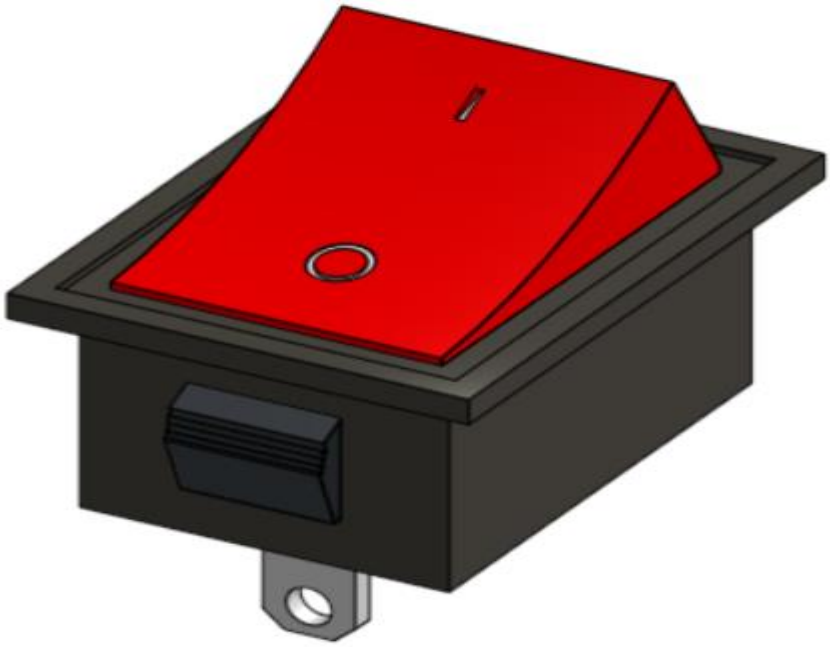
LED SHEET

3-D



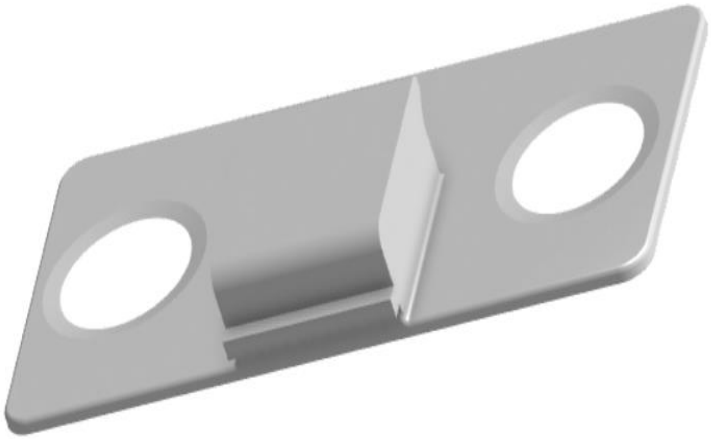
SWITCH

3-D



LOWER LOCK

3-D

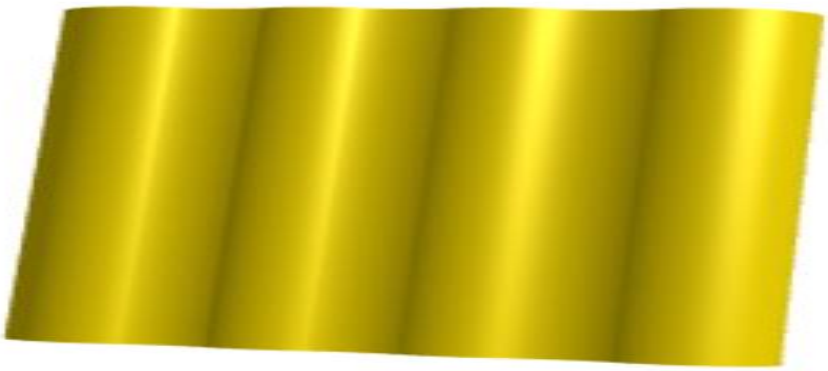


Mounting Screw **Screw**

3-D

BATTERY

3-D

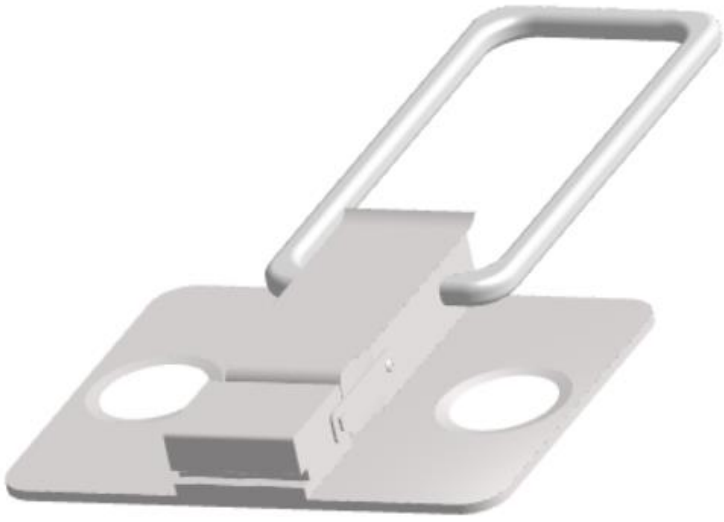


HANDLE

3-D

Upper LOCK

3-D



HINGES

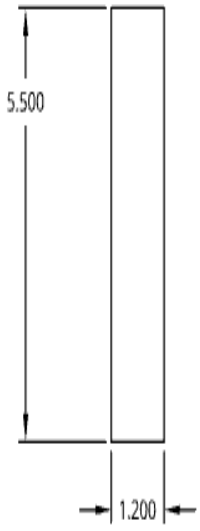
3-D

FINAL PRODUCT

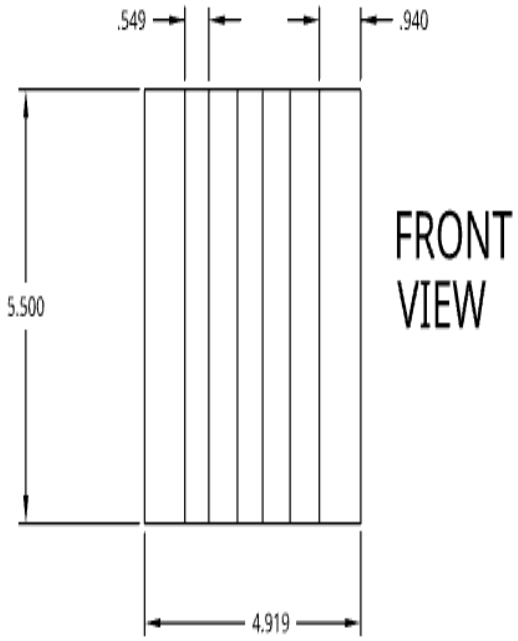
DRAFTING

IN DRAFTING

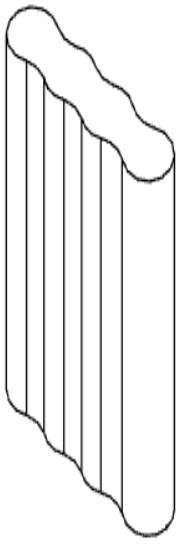
1 UNIT = 1O mm



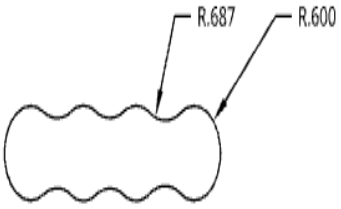
SIDE VIEW



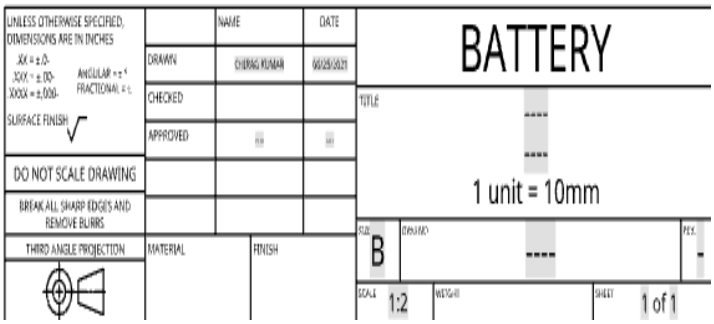
FRONT VIEW

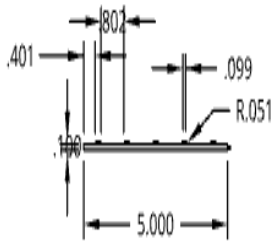


ISOMETRIC VIEW

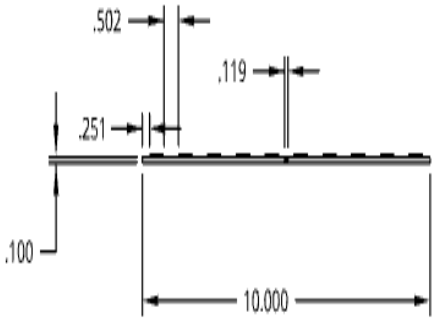


TOP VIEW

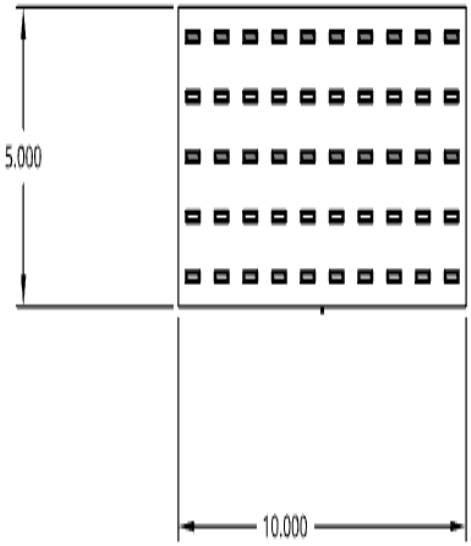




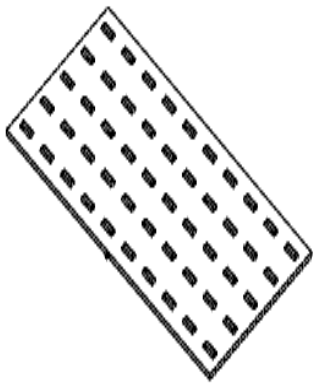
SIDE VIEW



FRONT VIEW



TOP VIEW



ISOMETRIC VIEW

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES .XX = ±.0- .XXX = ±.00- .XXXX = ±.000- ANGULAR = ±° FRACTIONAL = ± SURFACE FINISH √		NAME	DATE
	DRAWN	CHIRAG KUMAR	04/25/2023
	CHECKED		
	APPROVED	---	---
DO NOT SCALE DRAWING			
BREAK ALL SHARP EDGES AND REMOVE BURRS			
THIRD ANGLE PROJECTION	MATERIAL	FINISH	

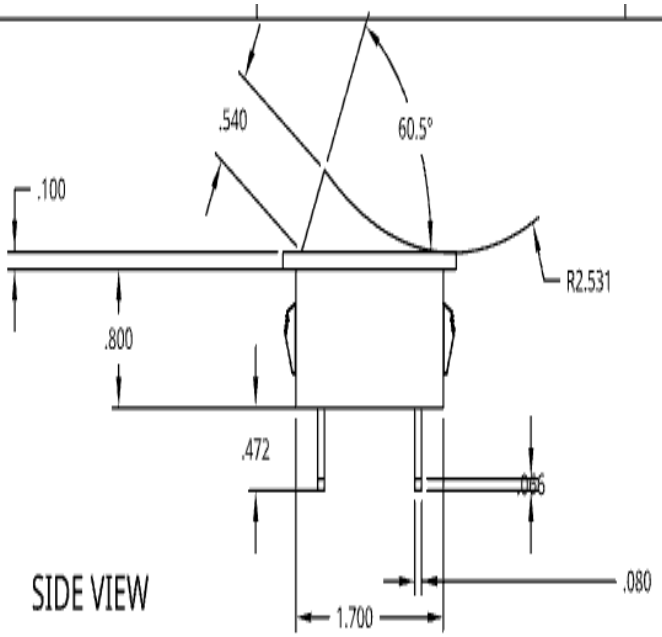
LED SHEET

TITLE: ---

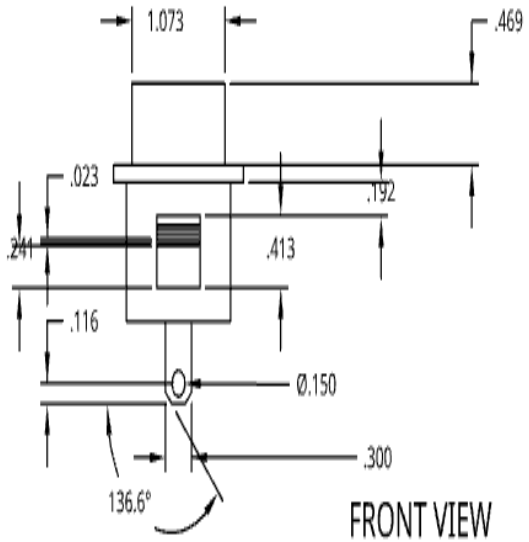
1 UNIT = 10 mm

SIZE: B | DWG NO.: --- | REV.: -

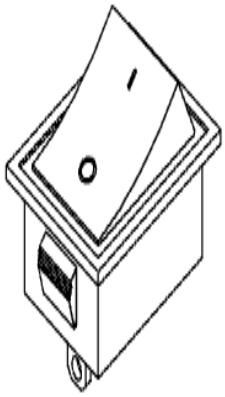
SCALE: 1:3 | WEIGHT: | SHEET: 1 of 1



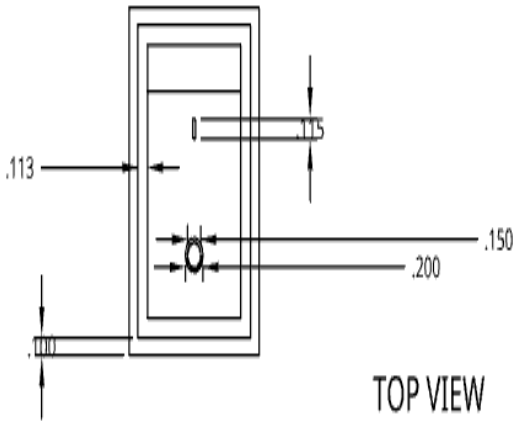
SIDE VIEW



FRONT VIEW



ISMOMETRIC VIEW



TOP VIEW

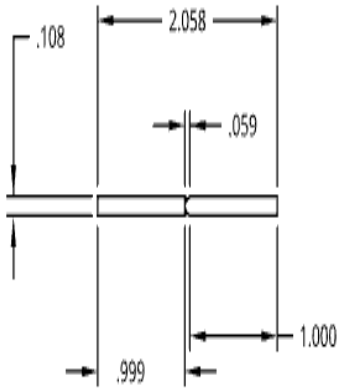
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES .XX = ±.0- .XXX = ±.00- .XXXX = ±.000- ANGULAR = ±° FRACTIONAL = ± SURFACE FINISH: √		NAME	DATE
	DRAWN	CHIRAG KUMAR	06/29/2023
	CHECKED		
	APPROVED		
DO NOT SCALE DRAWING			
BREAK ALL SHARP EDGES AND REMOVE BURRS			
THIRD ANGLE PROJECTION	MATERIAL	FINISH	

TITLE: SWITCH

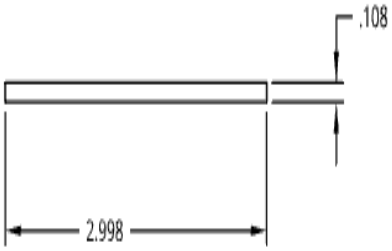
SIZE: B | DWG NO.: ---- | REV: -

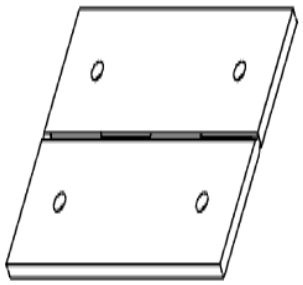
SCALE: 1:1 | WEIGHT: | SHEET: 1 of 1

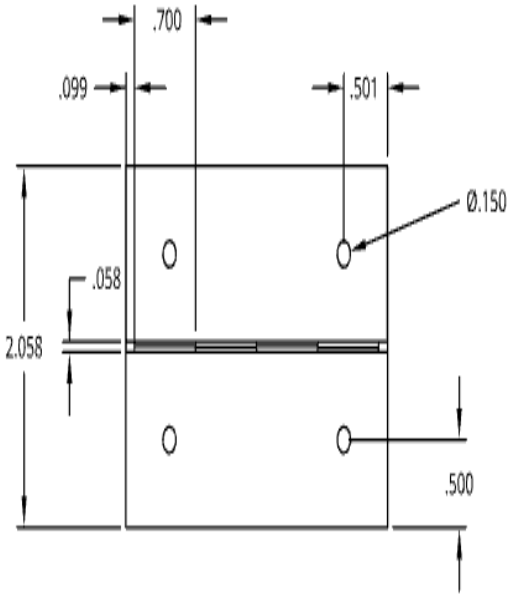
SIDE VIEW



FRONT VIEW







TOP VIEW

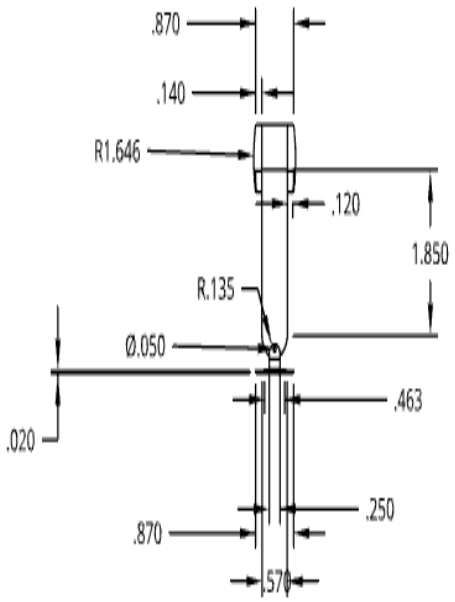
ISOMETRIC VIEW

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES .XX = ±.0 .XXX = ±.005 ANGULAR = ±° FRACTIONAL = ± SURFACE FINISH √		NAME	DATE
	DRAWN	CHIYUNG KUMAR	06/20/2023
	CHECKED		
	APPROVED	--	--
DO NOT SCALE DRAWING			
BREAK ALL SHARP EDGES AND REMOVE BURRS			
THIRD ANGLE PROJECTION	MATERIAL	FINISH	

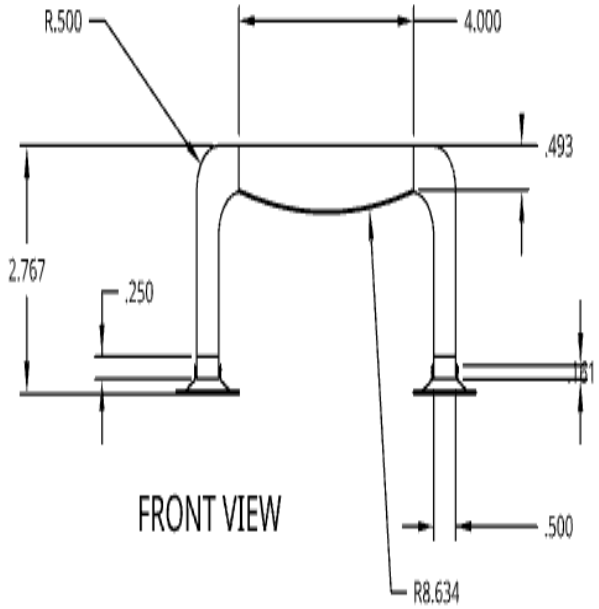
TITLE: HINGE

SIZE: B | DWG NO.: --- | REV: -

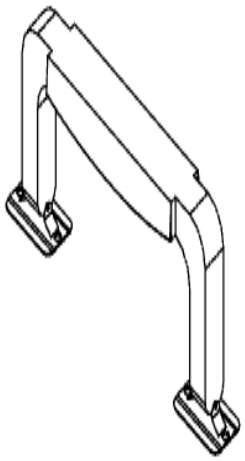
SCALE: 1:1 | WEIGHT: | SHEET: 1 of 1



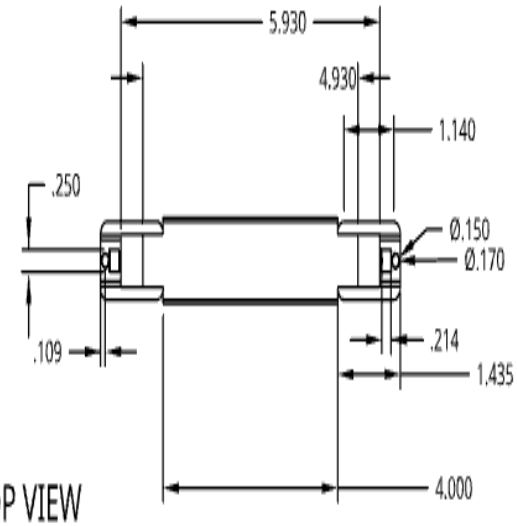
SIDE VIEW



FRONT VIEW



ISOMETRIC VIEW



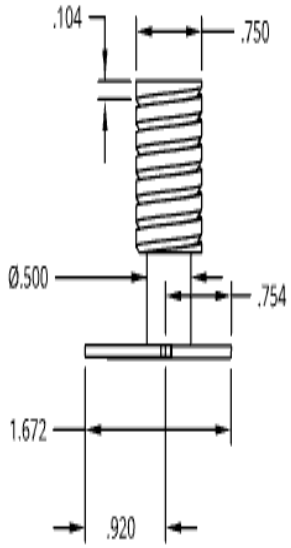
TOP VIEW

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES .XX = ±.0- .XXX = ±.00- .XXXX = ±.000- ANGULAR = ±° FRACTIONAL = ± SURFACE FINISH √		NAME	DATE
	DRAWN	CHIRAG KUMAR	04/25/2023
	CHECKED		
	APPROVED		
DO NOT SCALE DRAWING			
BREAK ALL SHARP EDGES AND REMOVE BURRS			
THIRD ANGLE PROJECTION	MATERIAL	FINISH	

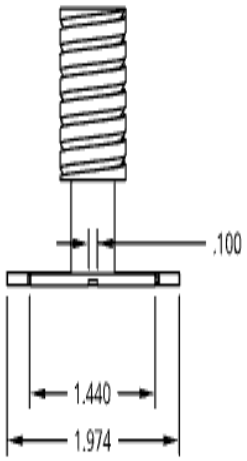
TITLE: HANDLE

SIZE: B | DWG NO. | REV.

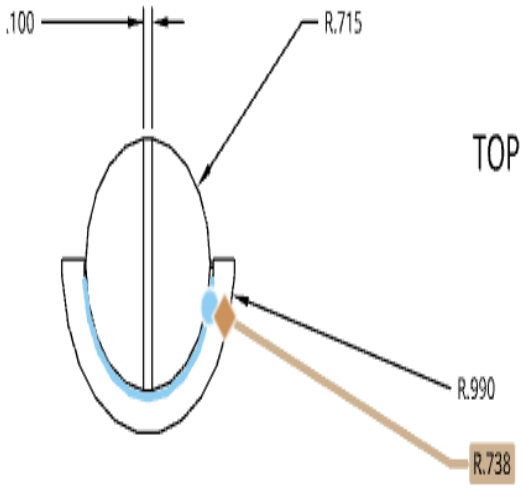
SCALE: 1:2 | WEIGHT | SHEET: 1 of 1



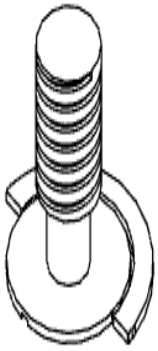
SIDE VIEW



FRONT VIEW



TOP VIEW



ISOMETRIC VIEW

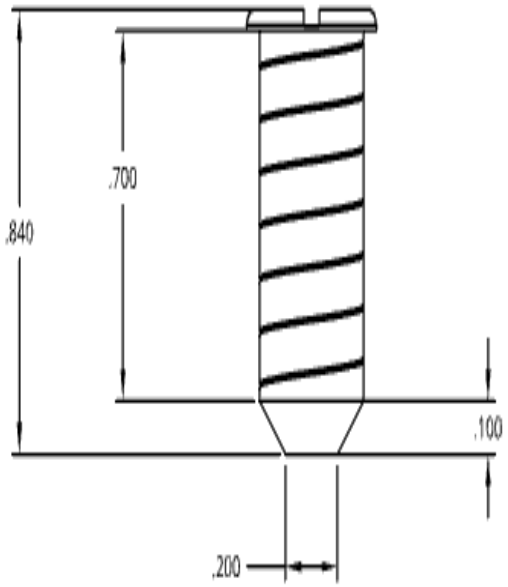
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES .XX = ±.0- .XXX = ±.00- .XXXX = ±.000- ANGULAR = ±° FRACTIONAL = ±		NAME	DATE
	DRAWN	CHIRAG KUMAR	06/29/2023
	CHECKED		
SURFACE FINISH √	APPROVED	--	--
DO NOT SCALE DRAWING			
BREAK ALL SHARP EDGES AND REMOVE BURRS			
THIRD ANGLE PROJECTION	MATERIAL	FINISH	

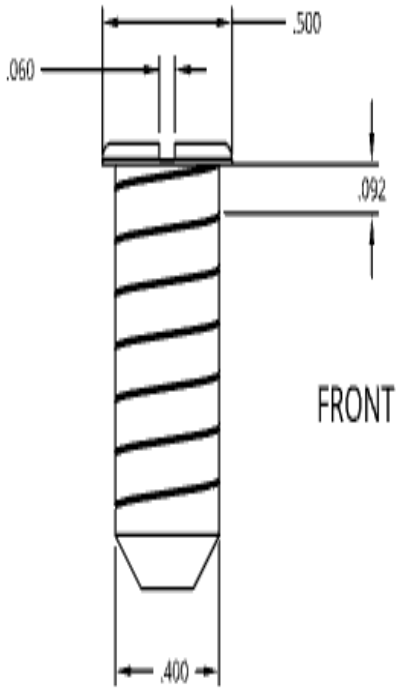
TITLE: MOUNTING SCREW

SIZE: B | DWG NO. ---- | REV. -

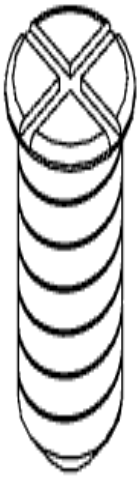
SCALE: 1:1 | WEIGHT | SHEET: 1 of 1

SIDE VIEW

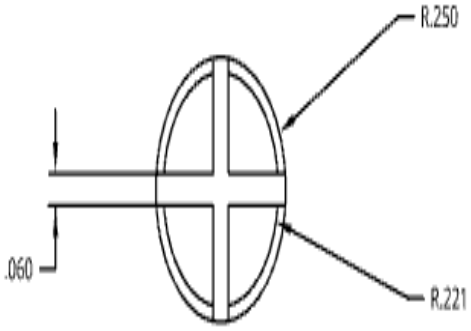




FRONT VIEW



ISOMETRIC VIEW



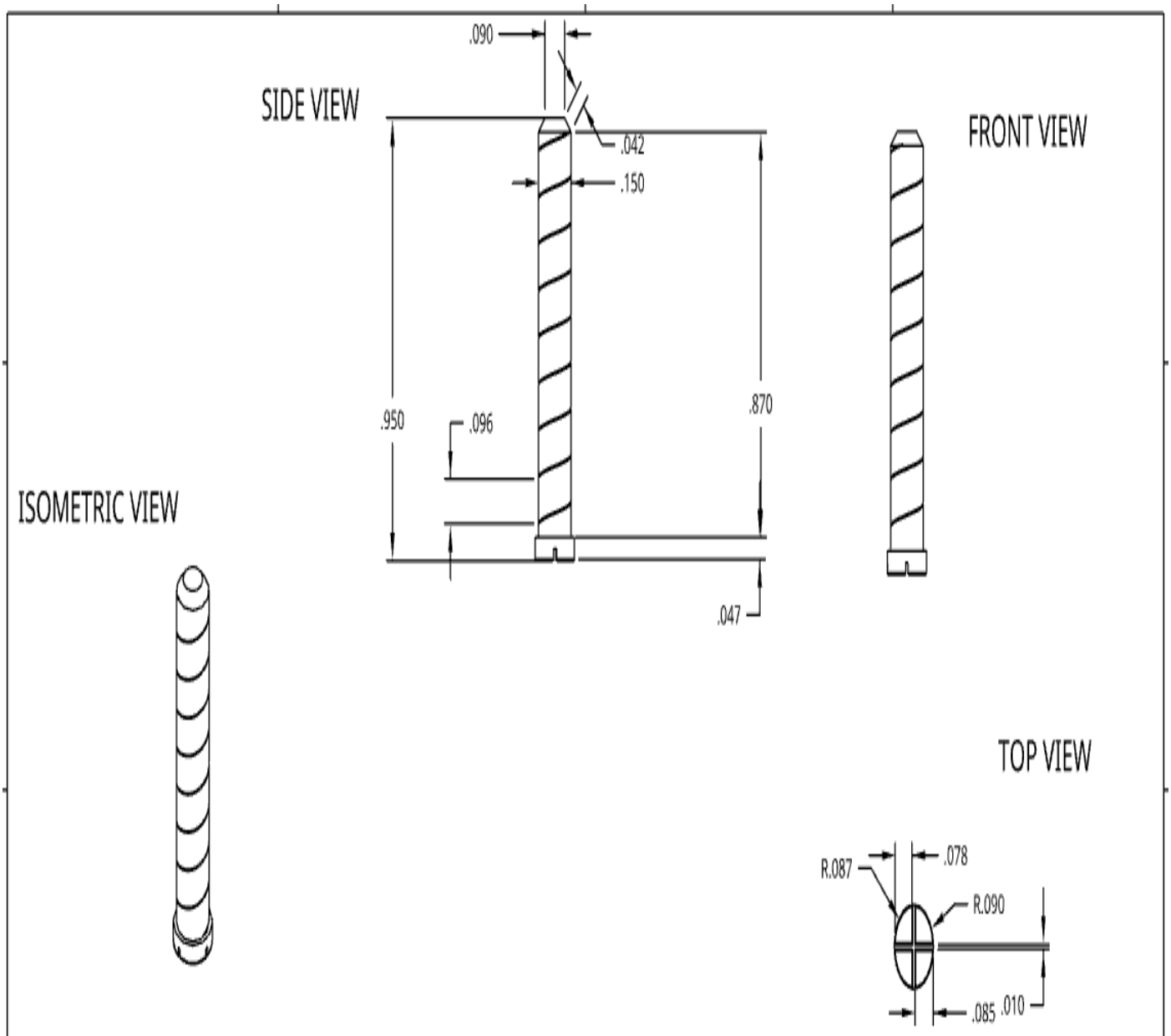
TOP VIEW

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES		NAME	DATE
	DRAWN		
	CHECKED		
SURFACE FINISH	APPROVED		
DO NOT SCALE DRAWING			
BREAK ALL SHARP EDGES AND REMOVE BURRS			
THIRD ANGLE PROJECTION	MATERIAL	FINISH	

TITLE: SCREW

SIZE: B | DWG NO. | REV.

SCALE: 3:1 | WEIGHT | SHEET 1 of 1



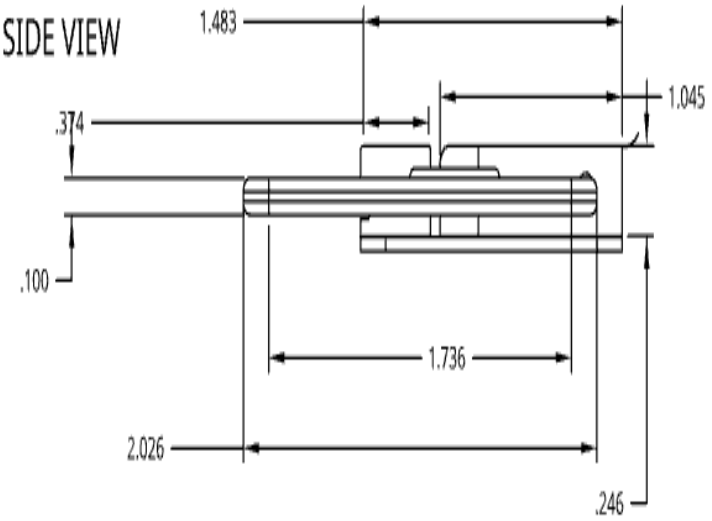
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES .XX = ±.03 .XXX = ±.005 ANGULAR = ±1° .XXXX = ±.0005 FRACTIONAL = ± SURFACE FINISH √		NAME	DATE
	DRAWN	CHIRAG KUMAR	06/25/2021
	CHECKED		
	APPROVED		
DO NOT SCALE DRAWING			
BREAK ALL SHARP EDGES AND REMOVE BURRS			
THIRD ANGLE PROJECTION	MATERIAL	FINISH	

TITLE: HINGE SCREW

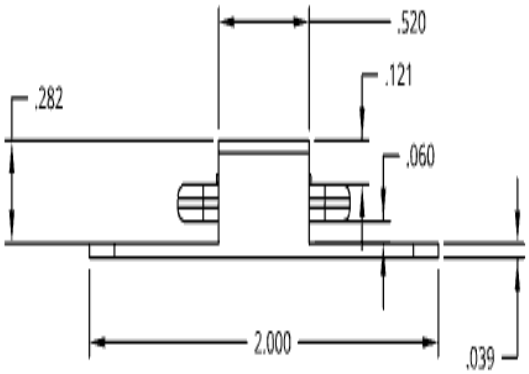
SIZE: B | DWG NO.: ---- | REV: -

SCALE: 3:1 | WEIGHT: | SHEET: 1 of 1

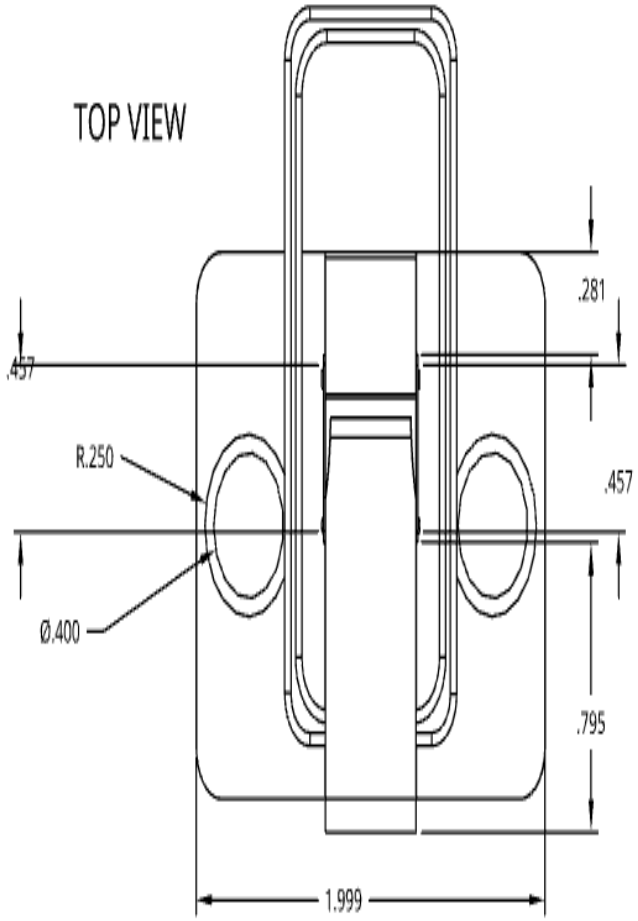
SIDE VIEW

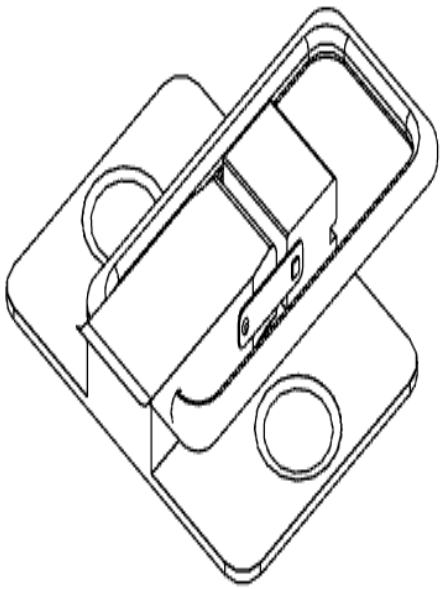


FRONT VIEW



TOP VIEW





ISOMETRIC VIEW

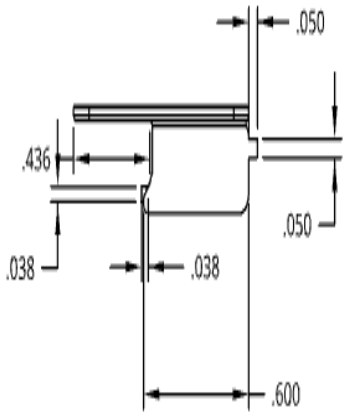
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES XX = ±.0 XXX = ±.010 XXXX = ±.050 ANGULAR = ±° FRACTIONAL = ± SURFACE FINISH √		NAME	DATE
	DRAWN	CHIRAG KUMAR	06/25/2023
	CHECKED		
	APPROVED		
DO NOT SCALE DRAWING			
BREAK ALL SHARP EDGES AND REMOVE BURRS			
THIRD ANGLE PROJECTION	MATERIAL	FINISH	

TITLE: UPPER LOCK

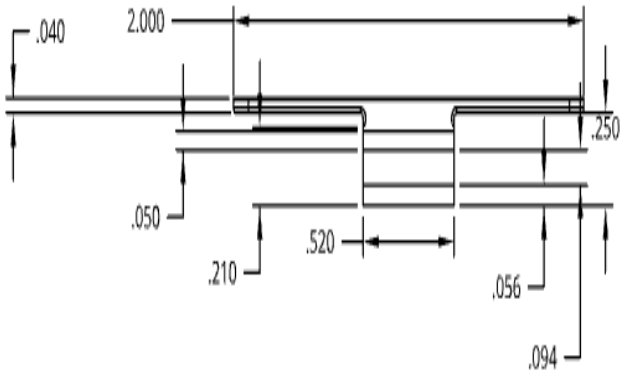
SIZE: B | DWG NO. --- | REV: -

SCALE: 2:1 | WEIGHT | SHEET: 1 of 1

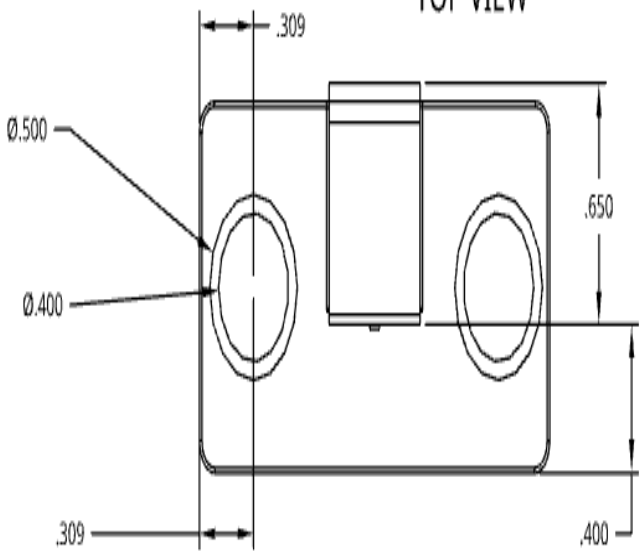
SIDE VIEW



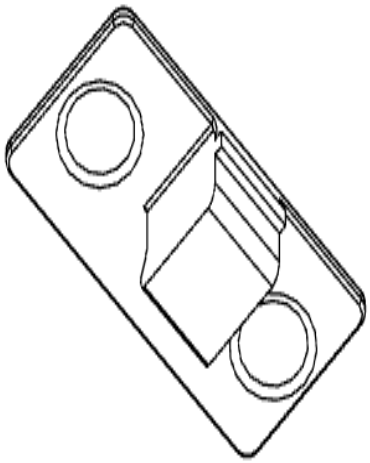
FRONT VIEW



TOP VIEW



ISOMETRIC VIEW

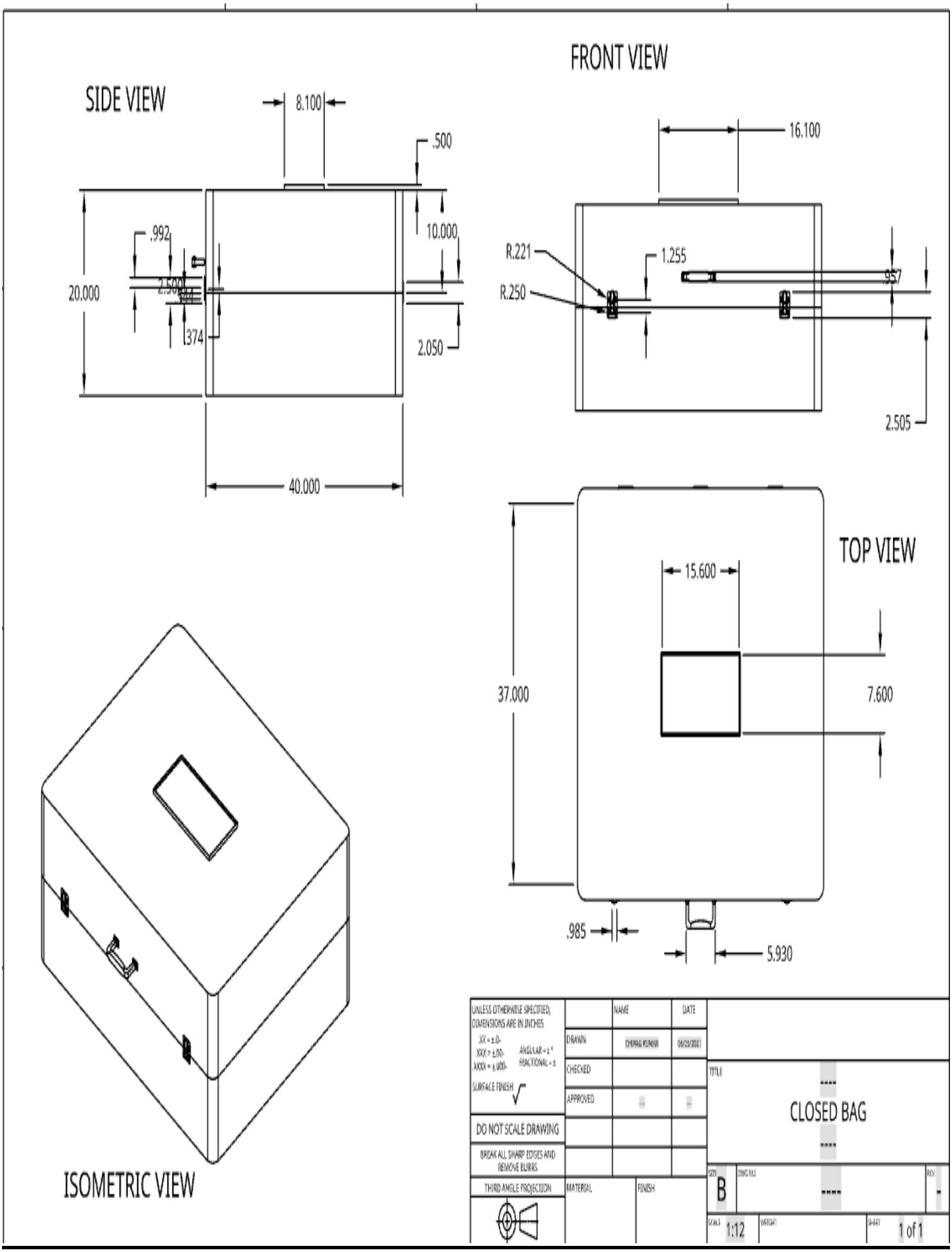


UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES .XX = ±.0- .XXX = ±.00- .XXXX = ±.000- ANGULAR = ±° FRACTIONAL = ± SURFACE FINISH √		NAME	DATE
	DRAWN	CHIRAG KUMAR	09/29/2023
	CHECKED		
	APPROVED	--	--
DO NOT SCALE DRAWING			
BREAK ALL SHARP EDGES AND REMOVE BURRS			
THIRD ANGLE PROJECTION	MATERIAL	FINISH	

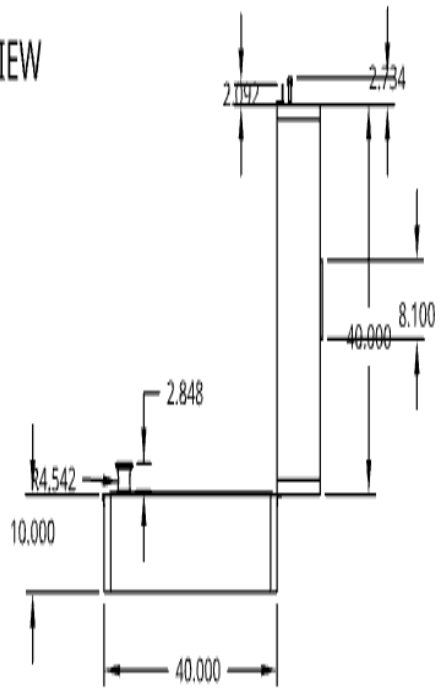
TITLE: LOWER LOCK

SIZE: B | DWG NO.: --- | REV: -

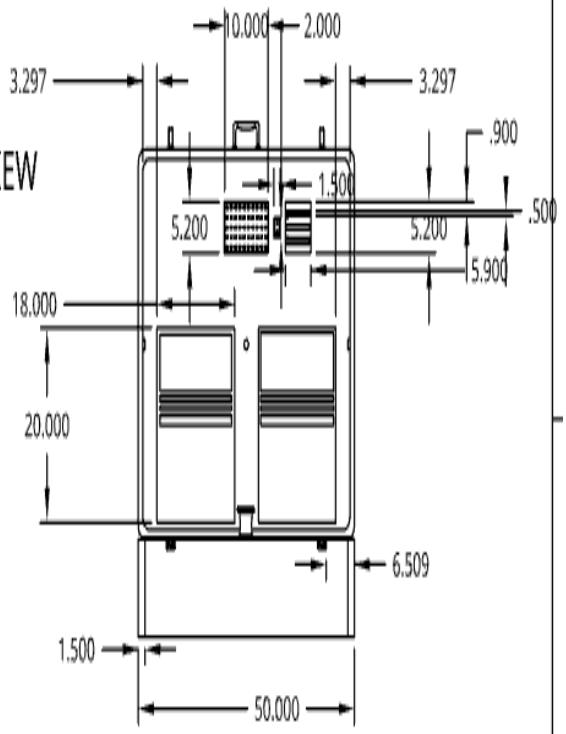
SCALE: 2:1 | WEIGHT: | SHEET: 1 of 1

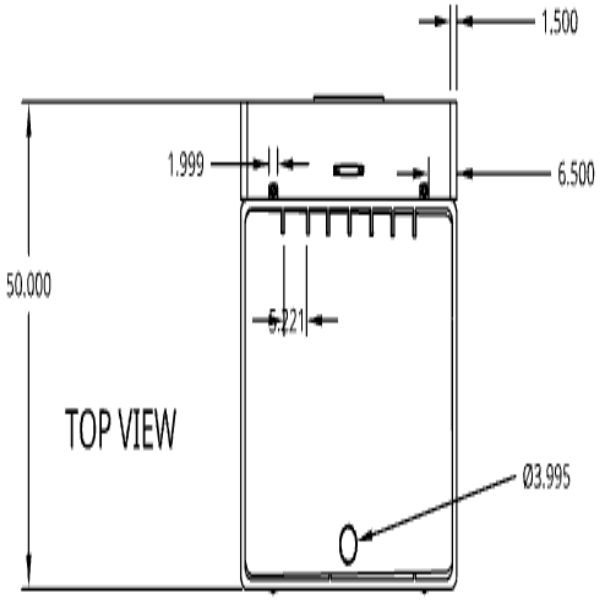

SIDE VIEW
8.100
.500
10.000
.992
2.500
20.000
.374
2.050
40.000
FRONT VIEW
16.100
R.221
R.250
1.255
.957
2.505
TOP VIEW
15.600
37.000
7.600
.985
5.930
ISOMETRIC VIEW
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES
XX = ±.0-
XXX = ±.00-
XXXX = ±.000-
ANGULAR = ±°
FRACTIONAL = ±
SURFACE FINISH
DO NOT SCALE DRAWING
BREAK ALL SHARP EDGES AND REMOVE BURRS
THIRD ANGLE PROJECTION
NAME
DATE
DRAWN
CHECKED
APPROVED
MATERIAL
FINISH
TITLE
CLOSED BAG
SIZE
B
SCALE
1:12
WEIGHT
SHEET
1 of 1
REV

SIDE VIEW

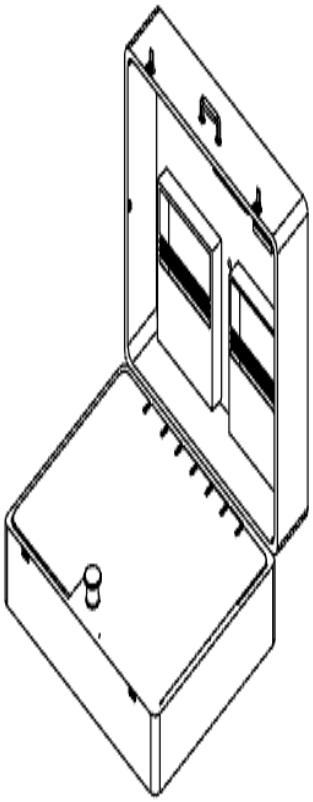


FRONT VIEW





TOP VIEW



ISOMETRIC VIEW

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES .XX = ±.0- .XXX = ±.00- .XXXX = ±.000- ANGULAR = ±° FRACTIONAL = ± SURFACE FINISH √		NAME	DATE
	DRAWN	CHIRAG KUMAR	06/29/2023
	CHECKED		
	APPROVED		
DO NOT SCALE DRAWING			
BREAK ALL SHARP EDGES AND REMOVE BURRS			
THIRD ANGLE PROJECTION	MATERIAL	FINISH	

TITLE

SIZE B | DWG NO. | REV -

SCALE 1:20 | WEIGHT | SHEET 1 of 1

Result and discussion

The exterior bag of our doctor's bag is made of mild steel S275JR grade, which involves the welding process, and the outer cuts are rounded with the help of filing. The interior partitions in the bottom box are formed using the welding process, and the space for documents and lab coat is in the upper box. We're using an SPST (Single Pole Single Throw) switch and a led aluminum strip. We've used synthetic leather in the lower bag. The bag serves the purpose to keep the different equipments like blood pressure machine, oximeter, etc. in a neat and managed way.

Our doctor’s bag can conveniently organize all the equipment. The additional LED makes it also usable in the dark (in emergency situations). Have solar panels so that solar energy can be used with external batteries. All devices have different parts and convenient handles. The bag is lightweight and portable.

Conclusion

Doctor’s bag is an organized combination that integrates multiple medical components in a single portable brief case. Along with features like solar panel, LED, batteries, handle etc. Our product doctor's bag is quiet beneficial in medical sector. it can be used by doctors, nurse and by person above (18+ age). As it consists multiple medical components in a single bag and also it is portable, cost effective and easy to use. All components are organised in such a way so that in case of emergency we need not to find essential items here and there.

Future scope

The future scope for our product is as follows:

- Integrated fingerprint sensor to make it more secure.
- Fixing of button, which can be used to automatically open the bag more conveniently.
- Addition of light detection sensor so that LED can glow automatically in dark.
- Freezing/temperature control facilities for medicine storage.

MEMBER	CONTRIBUTION
	Onshape 3D drawings
ABHISHEK ARORA	Free Hand Sketches
	Report Content
	Onshape 3D drawings
BHAVISHI BANSAL	AUTOCAD
	Report Content
	Onshape 3D drawings
CHIRAG KUMAR	Onshape Drafting
	Report Content
	Onshape 3D drawings
HARSH KHANDELWAL	Report Content
	Onshape 3D drawings
VARDHANA SHARMA	Report Compiling
	Report Content

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- Sasson Nakar, Shlomo Vinker, Michael A Weingarten

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- Can Fam Physician. 1980 Oct; 26: 1349–1351. PMCID: PMC2383753 PMID: 21293701 The Doctor's Bag John H. Sheldon

- [[Article in German] D von Hayek 1, H S Füessl Affiliations expand PMID: 11247358
- Srp Arh Celok Lek. Nov-Dec 1998;126(11-12):516-25. R Igić 1, A Nader, L Teplic

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