

## Level 1 Design and Visual Communication

AS91063 Produce freehand sketches that communicate design ideas

### **Exemplar for Excellence**

This submission shows a range of sketching techniques with clear line work and subtle rendering to show shape and form. This excellence grade could be further strengthened with more investigation into function, assembly and a variety of alternative view points.

# DESIGN BRIEF

- Design a Lamp that is inspired from the shape and movement from an insect or animal. This is a form of biomorphic design.
- The lamp must be designed to accommodate the LED torch that is provided.
- Consideration needs to be given to the function of the lamp.
- Consideration needs to be given to the form/shape of the lamp.



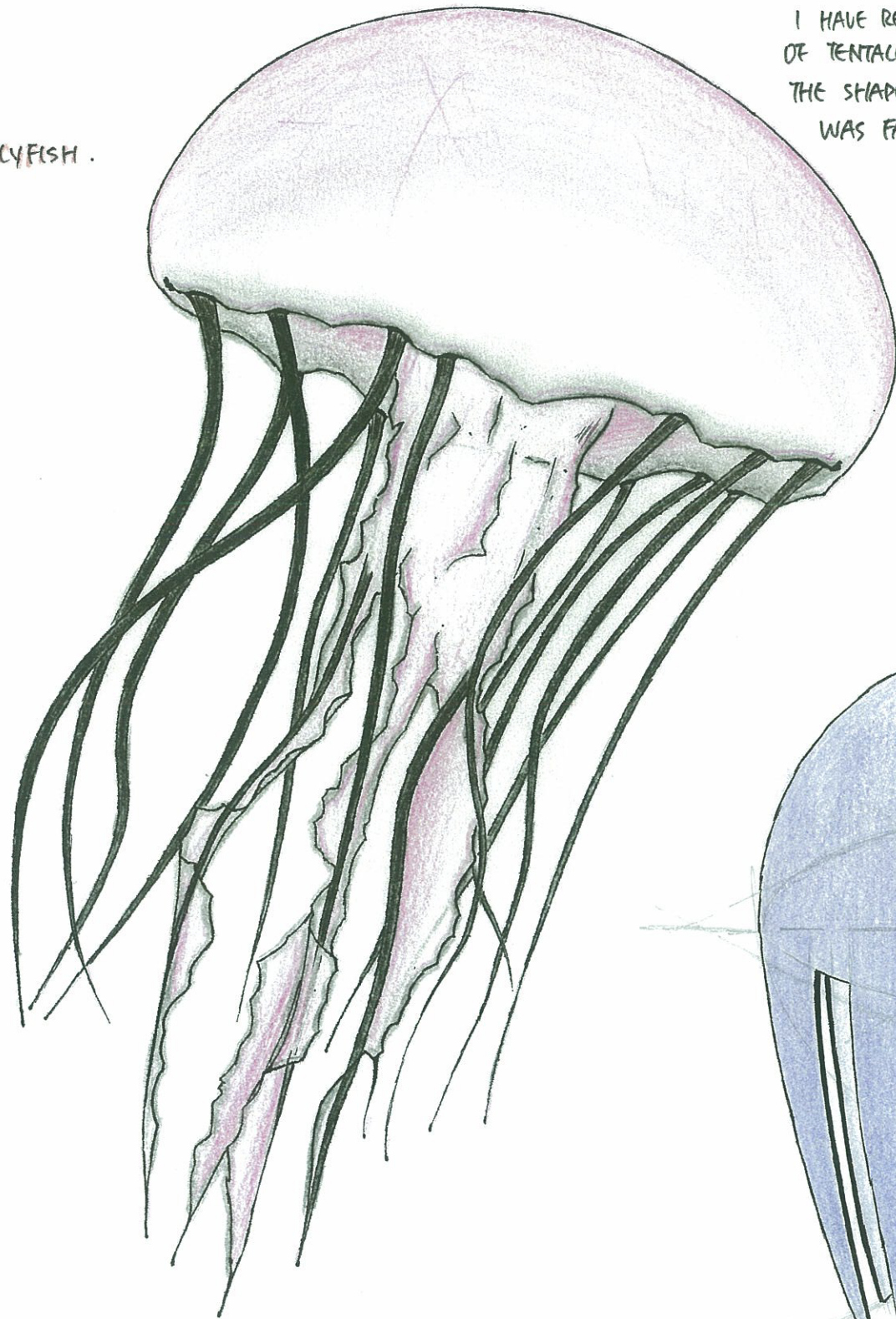
Front LED

FL1 STANDARD	FLASH 1/2/3	BLAST
	15 LUMENS	15 LUMENS
	60:00 h : min	30:00 h : min

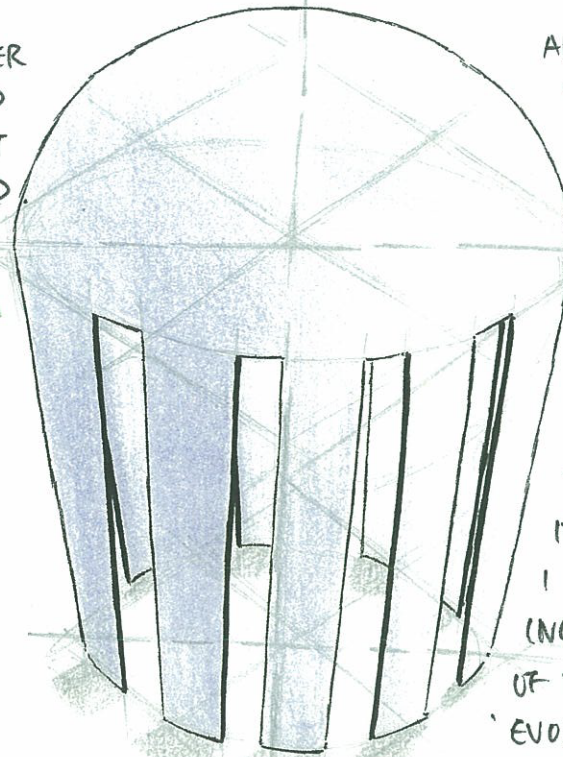
Rear LED

FL1 STANDARD	FLASH 1/2/3	BLAST
	7 LUMENS	7 LUMENS
	60:00 h : min	30:00 h : min

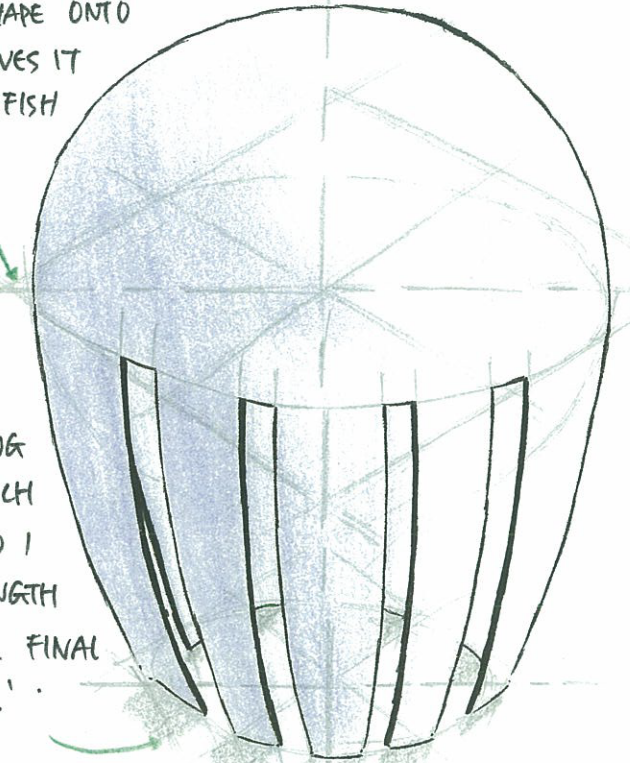
JELLYFISH .



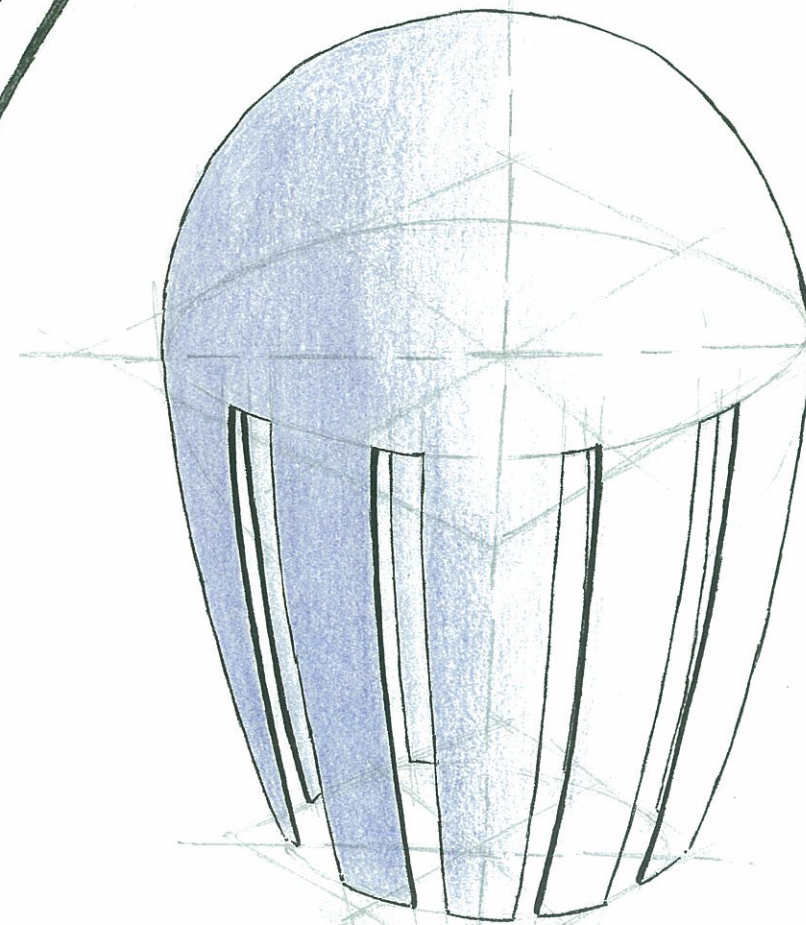
I HAVE REDUCED THE NUMBER OF TENTACLES AND SIMPLIFIED THE SHAPES OF IT BECAUSE IT WAS FAR TOO COMPLICATED.



ADDED A CURVE SHAPE ONTO THE LEGS. IT GIVES IT A MORE JELLYFISH LIKE .



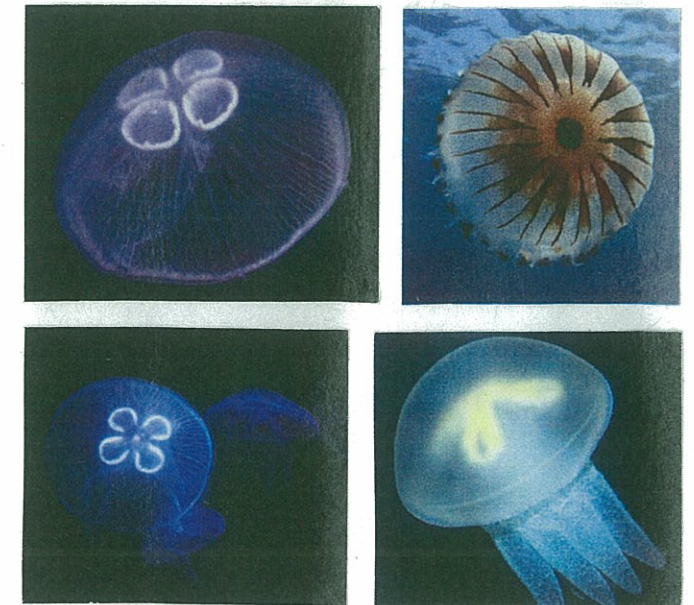
THE LEGS WERE TOO SHORT MAKING IT LOOK FAT. WHICH I DON'T WANT. SO I INCREASED THE LENGTH OF THE LEGS IN THE FINAL 'EVOLVED JELLYFISH.'



\* FINAL SHAPE -

FINAL SHAPE OF MY EVOLVED JELLYFISH. I'M GOING TO DEVELOP THIS SHAPE FURTHER TO MEET THE REQUIREMENTS FOR MY BIOMORPHIC LAMP DESIGN .

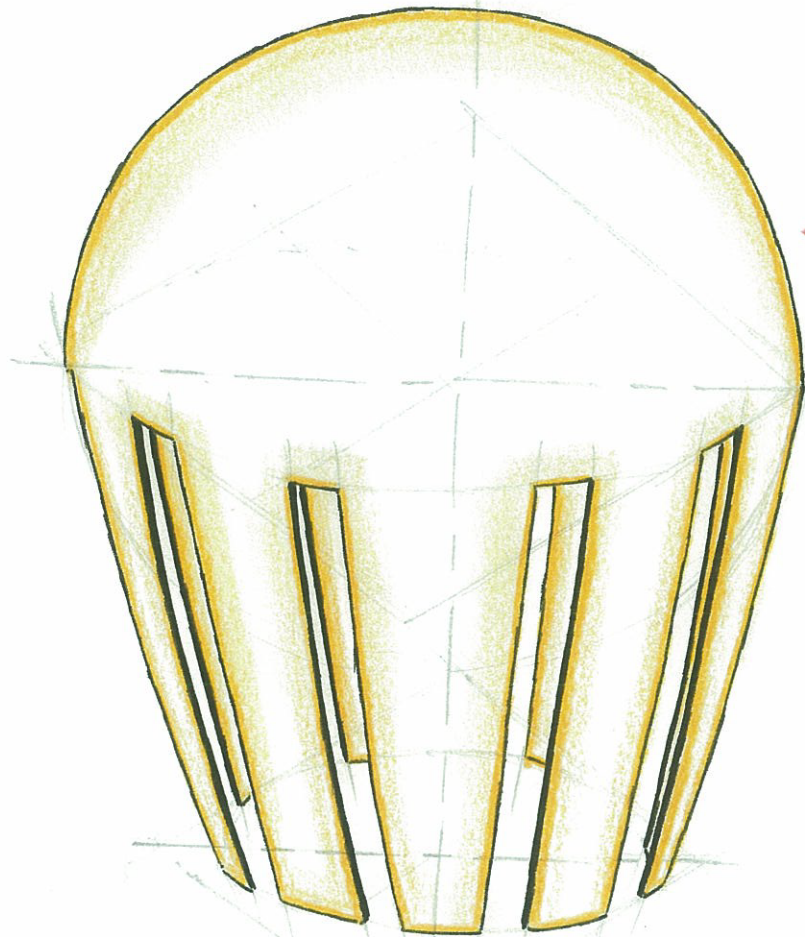
EVERY DIFFERENT SPECIES OF JELLYFISH HAS THEIR OWN UNIQUE PATTERN ON TOP OF THEIR HEADS. I MIGHT USE THIS ON MY LAMP BUT IT'S NOT REALLY NECESSARY BECAUSE IT'S ONLY A PATTERN THATS GOING TO BE ON MY LAMP .



- [http://www.zastavki.com/eng/Animals/Under\\_water/wallpaper-36419.ntm](http://www.zastavki.com/eng/Animals/Under_water/wallpaper-36419.ntm)
- <http://libutron.tumblr.com/post/77512120650/compass-jellyfish-c-marinko-babic-top-view-of>
- <http://abduzeedo.com/photography-inspiration-jellyfish>
- <http://gailery4share.com/g/glowing-jellyfish.html>

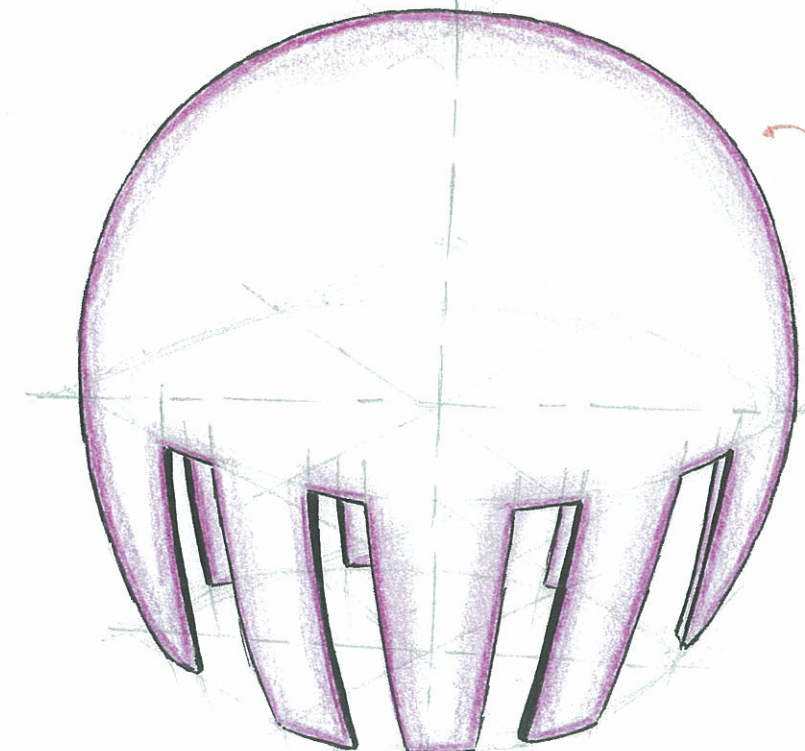
JELLYFISH SHAPE DEVELOPMENT

NTS .



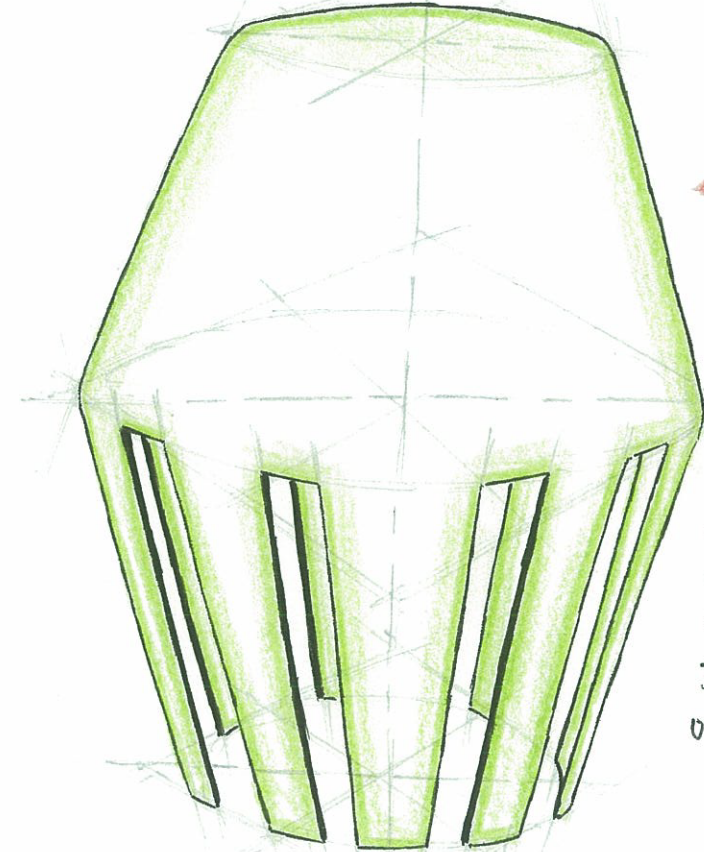
\* SHAPE 1.

THIS IS THE FINAL SHAPE OF MY EVOLVED JELLYFISH SHAPE DEVELOPMENT. THIS SHAPE IS SIMPLE BUT EFFECTIVE BECAUSE I CAN DEVELOP A LOT OF THINGS OUT OF THIS SIMPLE SHAPE INTO A UNIQUE BIOMORPHIC JELLYFISH LAMP. THE LENGTH OF THE LEGS ARE THE SAME LENGTH WITH THE HEAD. I THINK THE LEGS SHOULD BE LONGER.



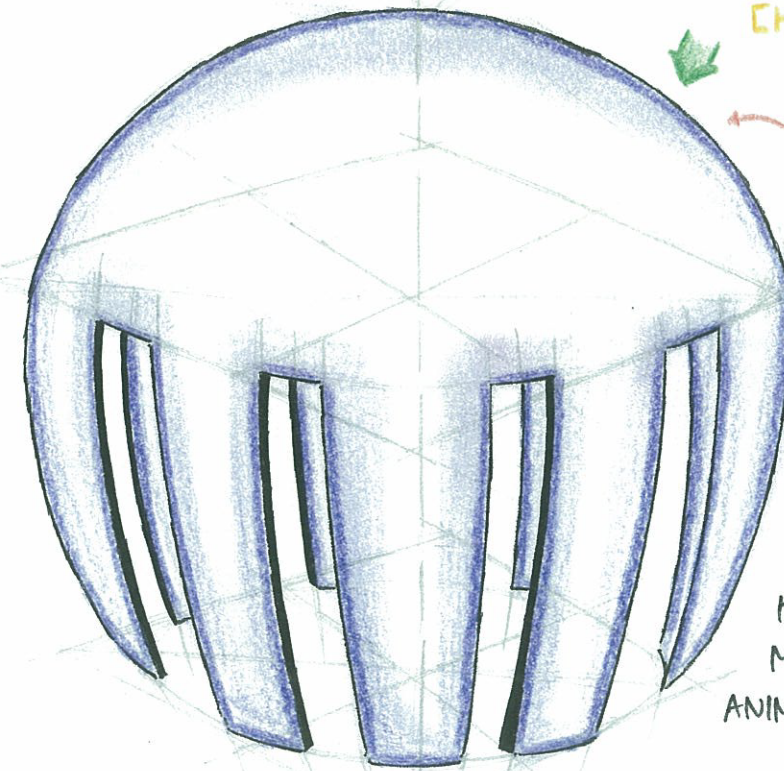
\* SHAPE 2.

THIS DESIGN IS IDEAL FOR YOUNG CHILDREN SINCE IT'S ROUND, HAS NO SHARP EDGES AND THE ROUND SHAPE OF THE LAMP, PLUS THE SHORT LEGS MAKE THE LAMP LOOK CUTE. BUT I WANT MY LAMP TO HAVE LONG LEGS LIKE A REAL JELLYFISH SO I'M NOT GOING TO CHOOSE THIS IDEA.



\* SHAPE 3.

THIS IS BY FAR THE WORST DESIGN OUT OF ALL MY OTHER DESIGNS. BECAUSE IT HAS A LOT OF STRAIGHT LINES WHICH I DON'T LIKE AND IS NOT IDEAL FOR A BIOMORPHIC DESIGN. THE ONLY GOOD THING ABOUT THIS LAMP IS THAT IT DOESN'T LOOK LIKE A JELLYFISH COMPARED TO ANY OF MY OTHER IDEAS.



CHOSEN DESIGN

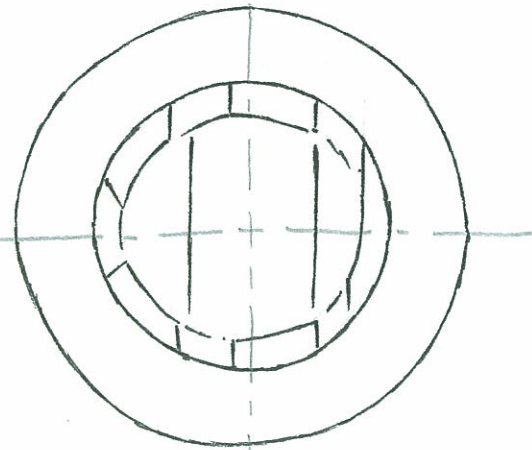
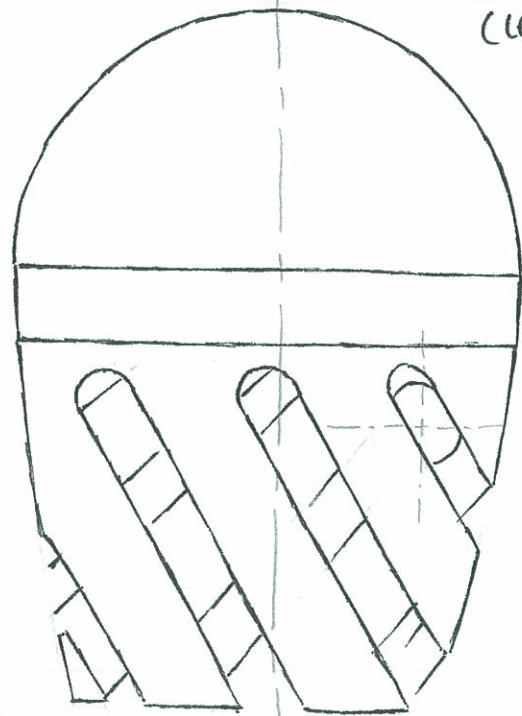
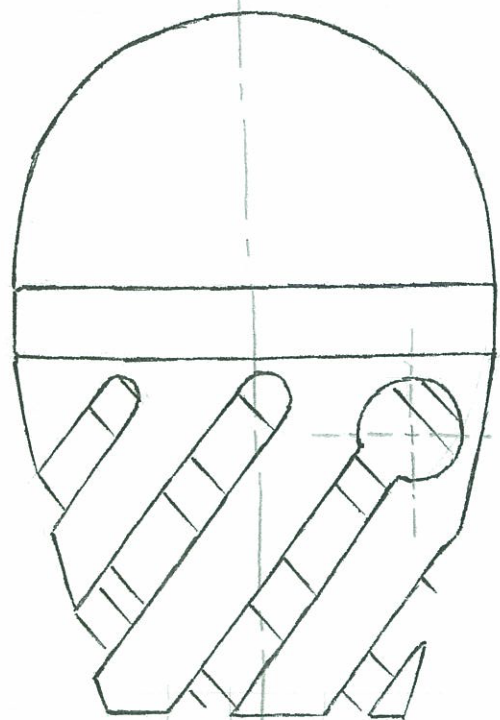
\* SHAPE 4.

THE OVERALL SHAPE OF THIS DESIGN IS IDENTICAL TO THE ONE ON THE LEFT (SHAPE 2.) BUT THE ONLY DIFFERENCE IS THAT THIS ONE HAS LONGER LEGS. THIS DESIGN HAS A SMALL HEAD AND HAS LONG LEGS WHICH IS IDEAL FOR MY LAMP DESIGN BECAUSE THE ANIMAL THAT I'M USING IS JELLYFISH.

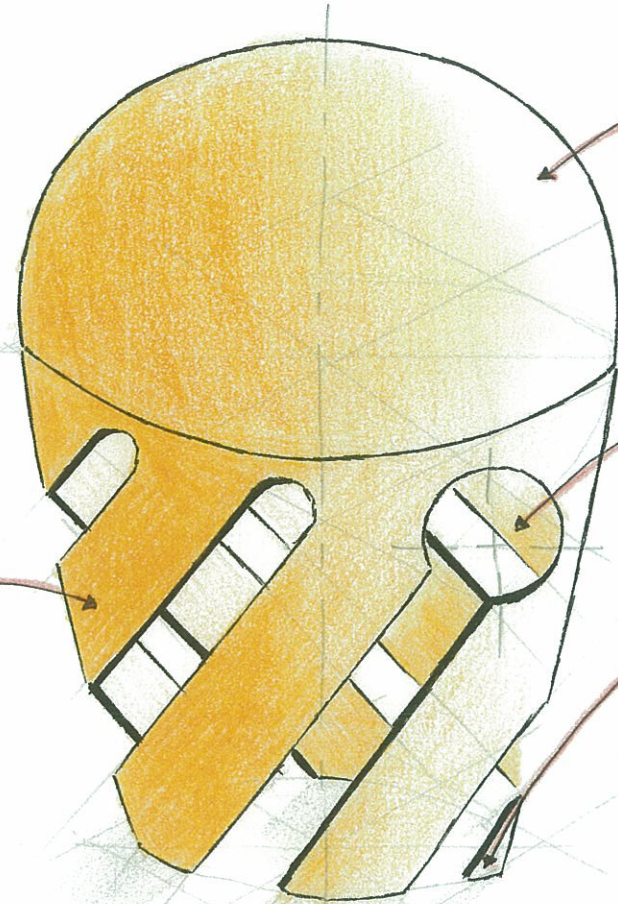
THIRD ANGLE PROJECTION.



FINAL DESIGN



\* DESIGN.



HEAD.

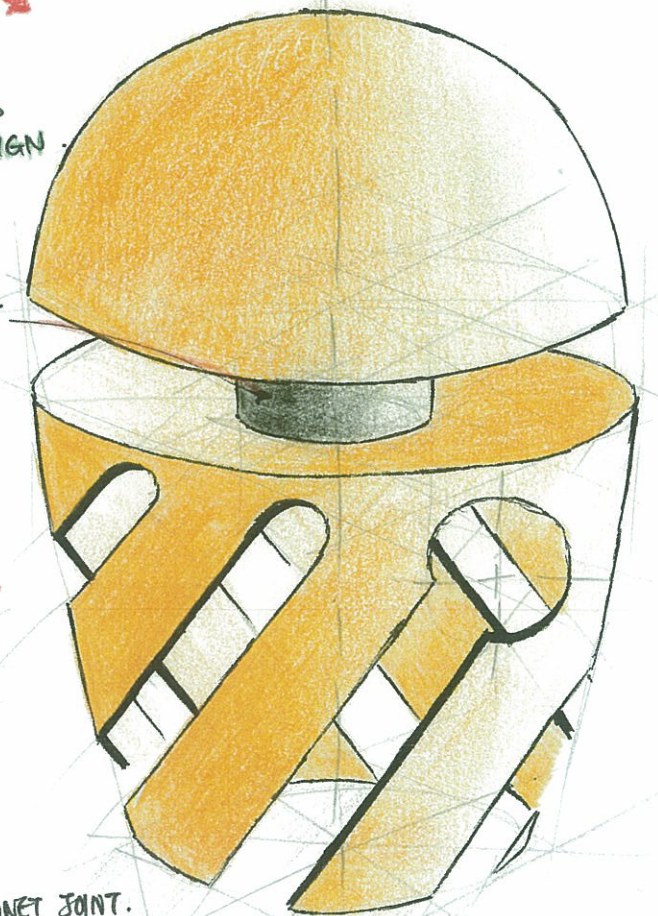
THE HOLE IS FOR THE FINGER TO GO THROUGH AND PUSH THE BICYCLE LIGHT.

BASE (LEGS.)

I'M GOING TO DEVELOP THE BOTTOM OF THE LEGS FURTHER BECAUSE I THINK THEY ARE TOO THIN TO SUPPORT THE LAMP.

\* SPLIT-UP DESIGN.

BICYCLE LIGHT.



\* SPLIT-UP DESIGN WITH JOINTS.

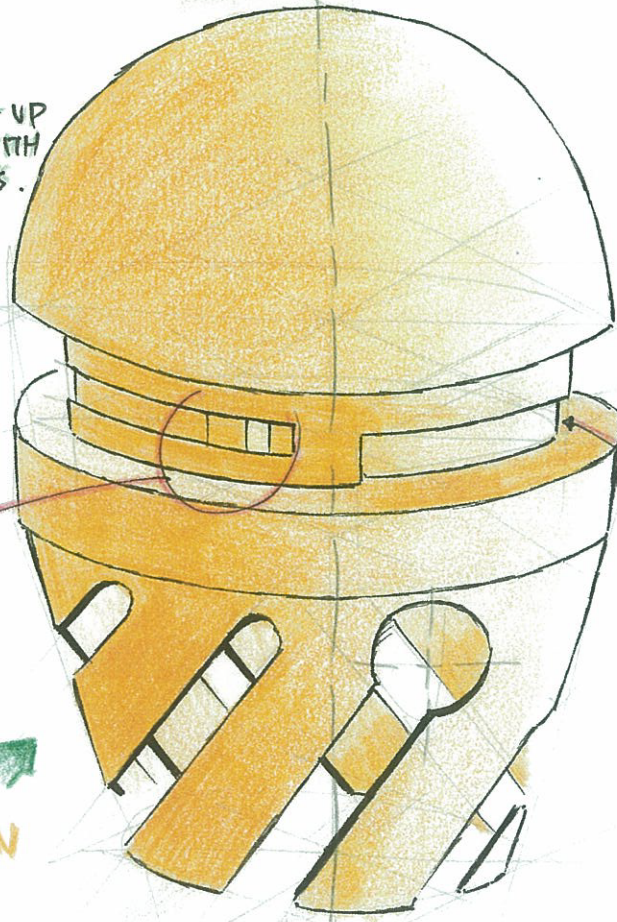
\* THERE IS A BUMP ON EACH SIDE.

THE BUMP ON THE JOINT SLIDES INTO THE HOLE AND LOCKS IN.

TOP VIEW OF THE BAYONET JOINT.

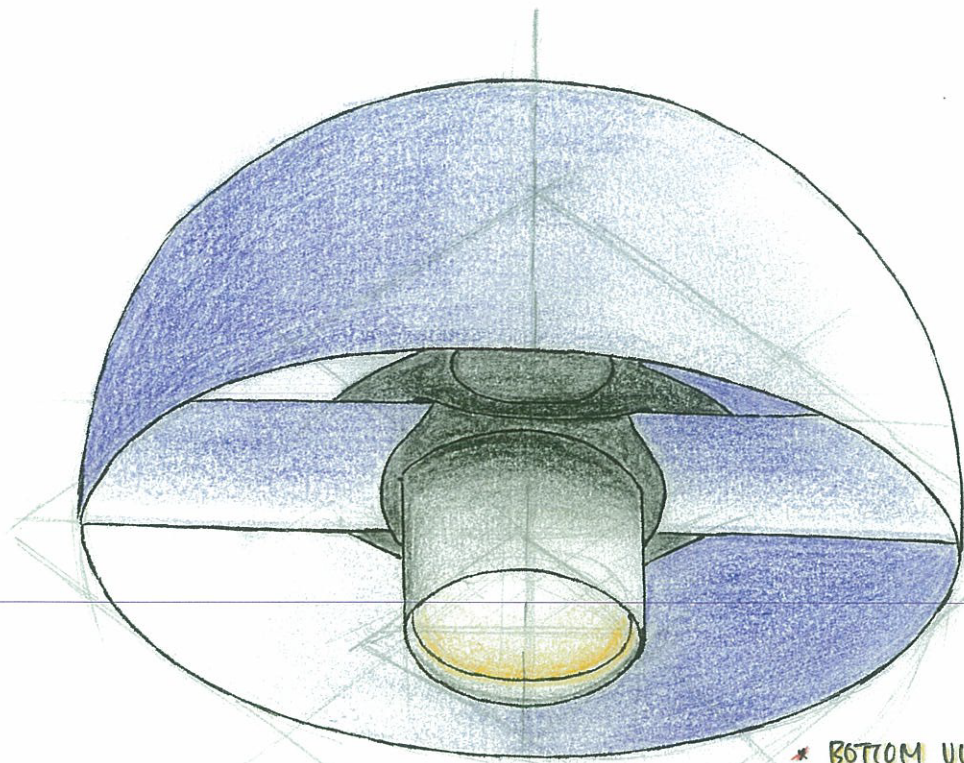
BAYONET JOINT. UNLIKE A THREAD JOINT, BAYONET JOINT CAN BE TIGHTEN WITH ONLY A 90° TURN.

FINAL DESIGN

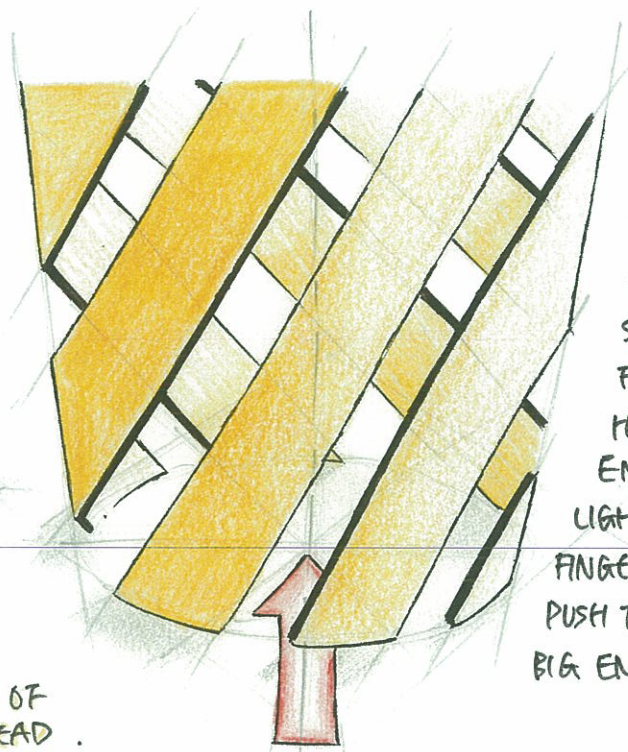


FINAL LAMP DESIGN.

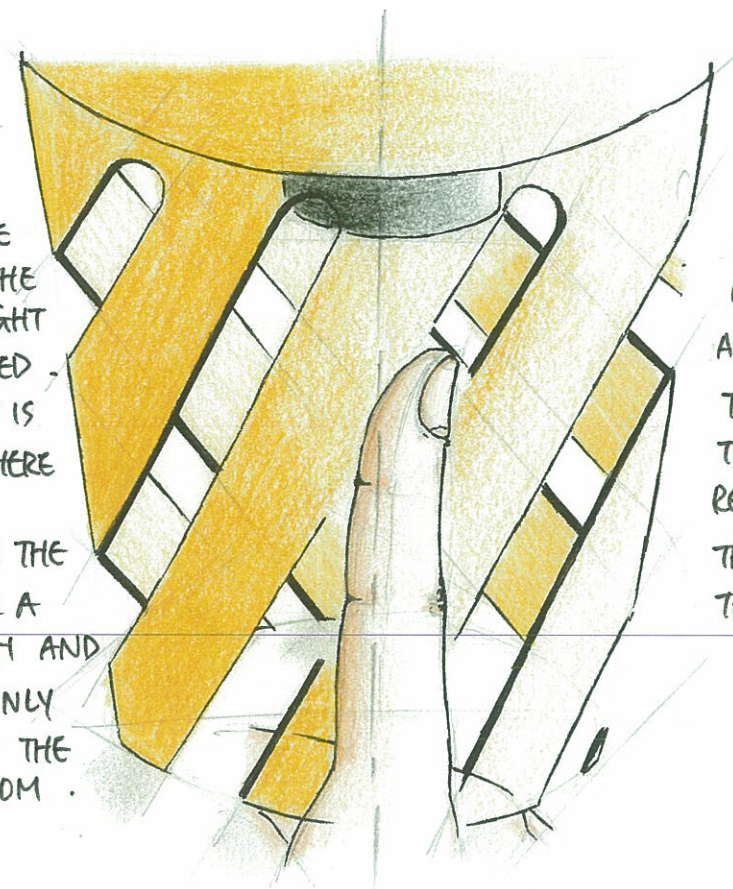
NTS.



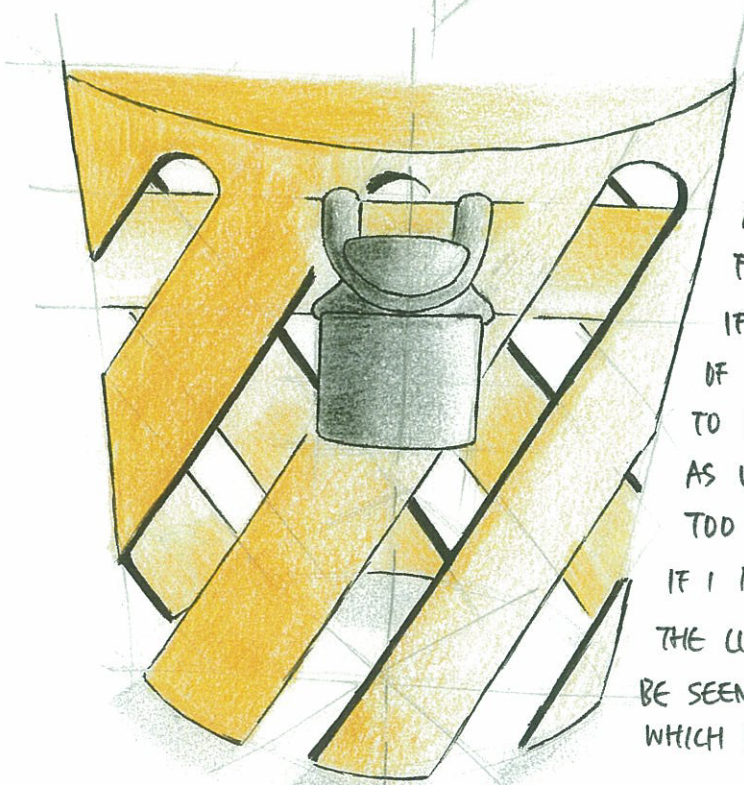
\* BOTTOM VIEW OF THE HEAD .



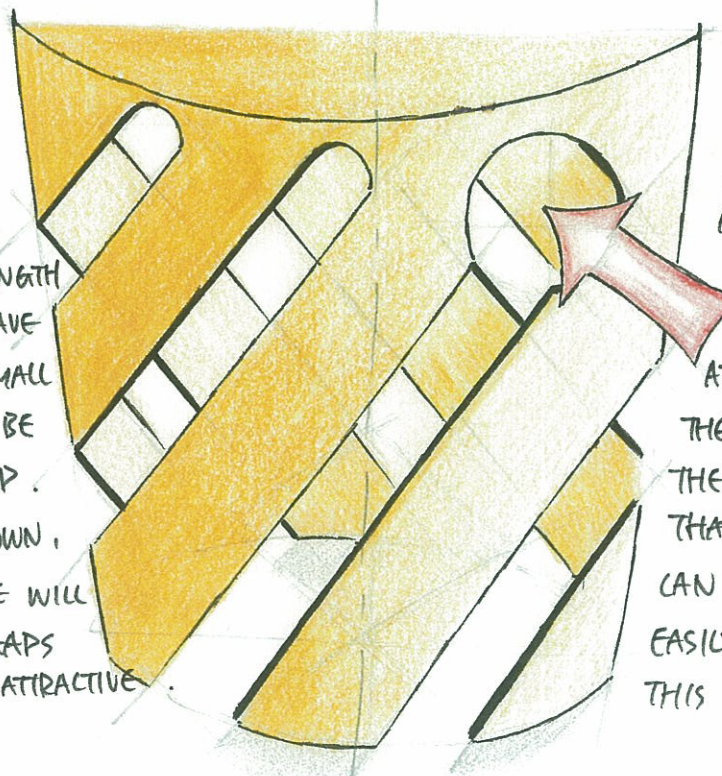
TO TURN ON THE BICYCLE LIGHT, THE LENS OF THE LIGHT HAVE TO BE PUSHED . SINCE THE LIGHT IS FACING DOWN . THERE HAS TO BE A BIG ENOUGH GAP NEAR THE LIGHT IN ORDER FOR A FINGER TO GO THROUGH AND PUSH THE LIGHT . THE ONLY BIG ENOUGH GAP IS AT THE BOTTOM .



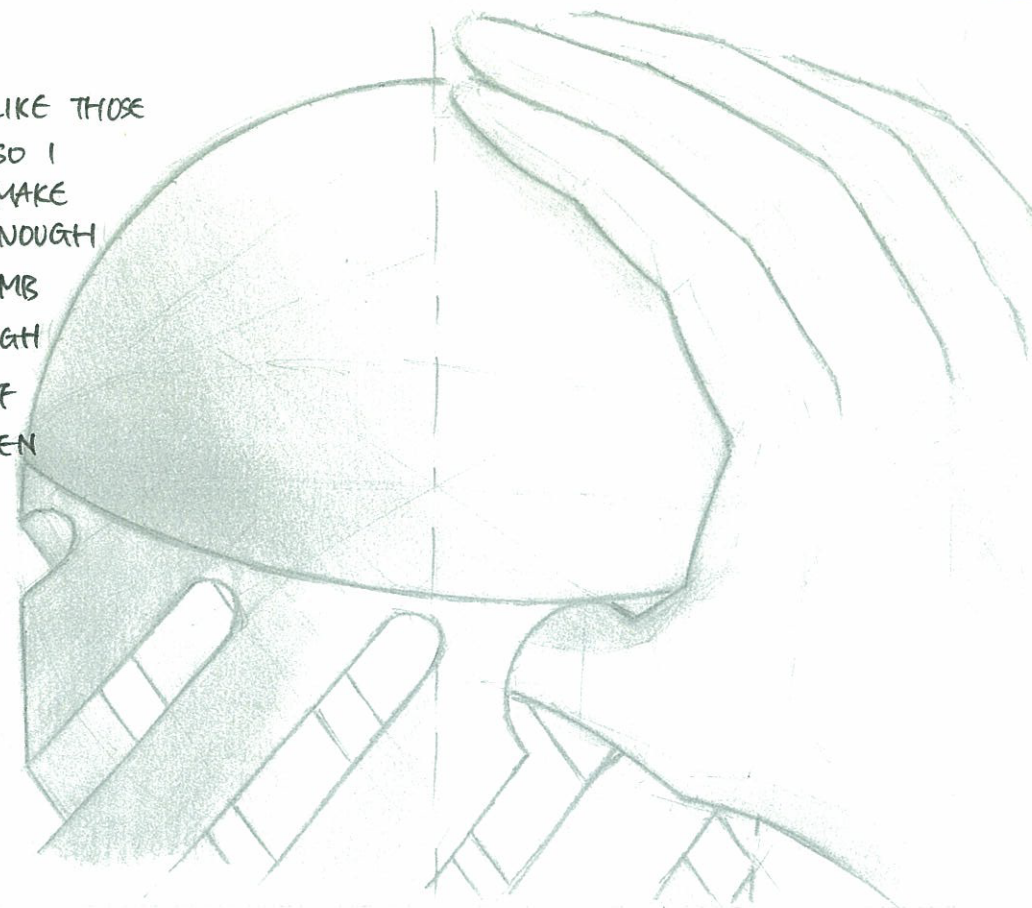
THE PROBLEM WITH THIS IS THAT THE LEGS OF THE LAMP IS LONGER THAN AN AVERAGE ADULT FINGER . THERE IS TWO SOLUTIONS TO SOLVE THIS . I CAN REDUCE THE LENGTH OF THE LEGS OR I CAN MOVE THE BICYCLE LIGHT DOWN .

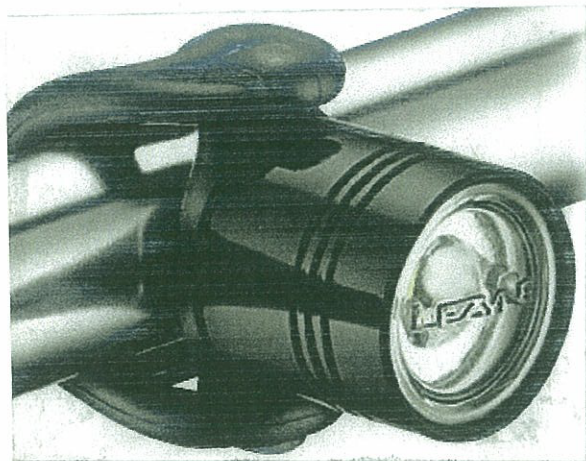
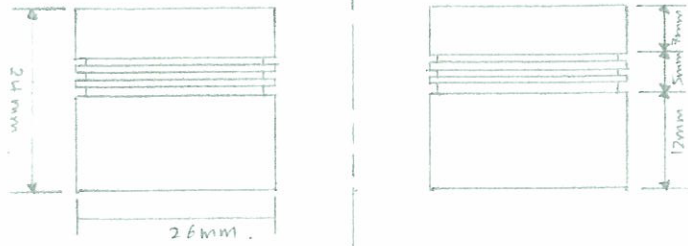


LENGTH OF AN AVERAGE ADULT FINGER IS SMALL . IF I REDUCE THE LENGTH OF THE LEGS , I'LL HAVE TO MAKE THE HEAD SMALL AS WELL . THEN IT'LL BE TOO SMALL FOR A LAMP . IF I MOVE THE LIGHT DOWN , THE LIGHT AND THE POLE WILL BE SEEN THROUGH THE GAPS WHICH WILL MAKE IT UNATTRACTIVE .



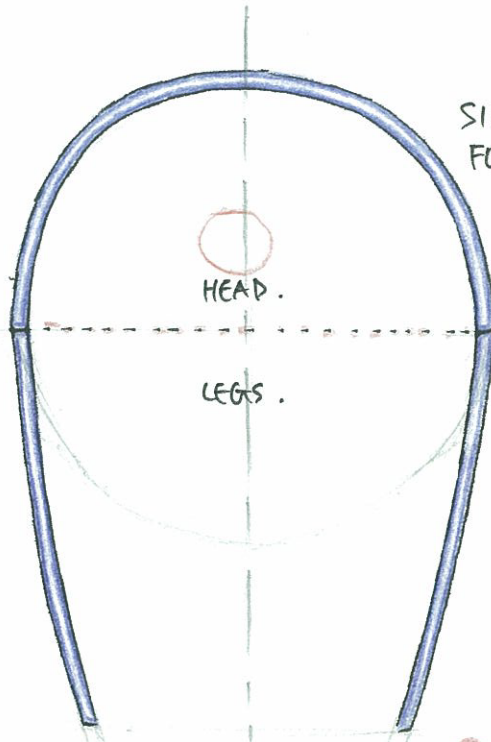
I DIDN'T LIKE THOSE TWO IDEAS SO I DECIDED TO MAKE A HOLE BIG ENOUGH FOR A THUMB TO GO THROUGH AT THE TOP OF THE GAP BETWEEN THE LEGS . SO THAT THE LIGHT CAN BE PUSHED EASILY THROUGH THIS HOLE .





[http://www.lezyne.com/product-led-sport-femto/rnt.php#Vaa2LO\\_ALIU](http://www.lezyne.com/product-led-sport-femto/rnt.php#Vaa2LO_ALIU)

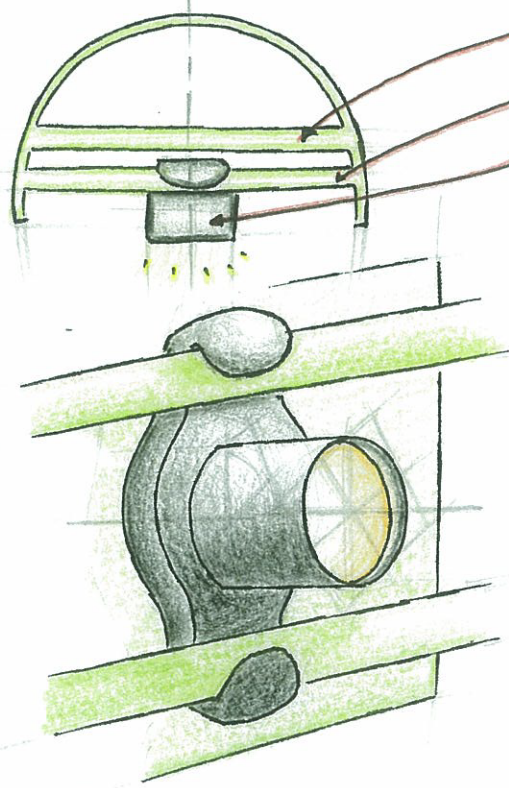
THE LEZYNE FEMTO DRIVE IS A BRIGHT, ULTRA-COMPACT 15 LUMEN SAFETY LIGHT. IT FEATURES AN INTEGRATED LENS SWITCH MADE OF HIGH GRADE OPTICAL MATERIAL, WHICH SERVES AS AN ACTIVATION BUTTON THAT HAS FOUR FLASH MODES AND ONE SOLID MODE. THE ALUMINUM BODY IS LIGHT WEIGHT, DURABLE AND EXTREMELY WEATHER-RESISTANT. THE COMPOSITE MATRIX BACK CAP FEATURES THE CLIP-ON SYSTEM FOR VERSATILE SWAPPED OR CLIPPED MOUNTING.



SINCE THE PLASTIC THAT I'M USING FOR THE 3-D PRINTING OF MY LAMP ISN'T SEE-THROUGH, IT WOULD BE BETTER TO HAVE THE BICYCLE LIGHT FACING DOWN INSTEAD OF FACING TOP. THE BEST PLACE TO FIT THE LIGHT WOULD BE THE INSIDE OF THE HEAD OF THE LAMP. BECAUSE IF I PUT THE LIGHT INSIDE THE LEGS, THE LIGHT WOULD BE SEEN THROUGH THE GAPS OF THE LEGS WHICH WILL MAKE IT UNATTRACTIVE / UGLY. BUT IF I PUT IT INSIDE THE HEAD, IT WOULD BE COMPLETELY HIDDEN.

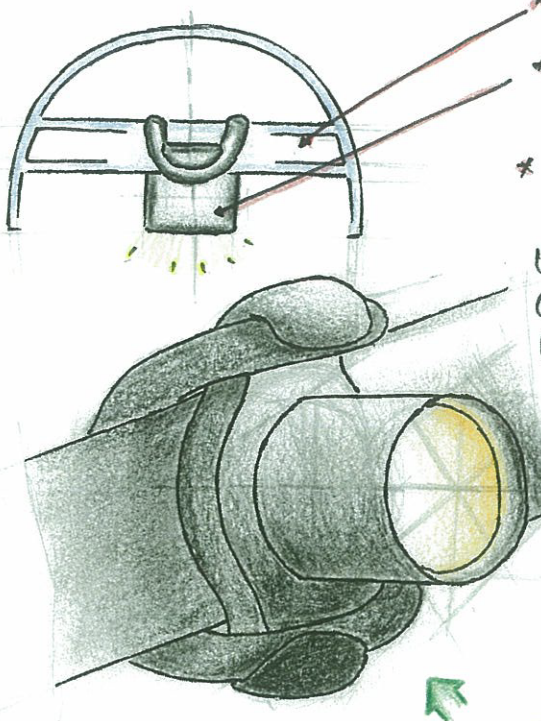
○ = THE LIGHT IS GOING TO BE HERE.

IDEAS OF HOW I'M GOING TO ATTACH THE LIGHT TO THE LAMP.



- \* PLASTIC PANEL.
- \* TWO PLASTIC POLES, ON EACH SIDE.
- \* BICYCLE LIGHT.
- \* IDEA 1.

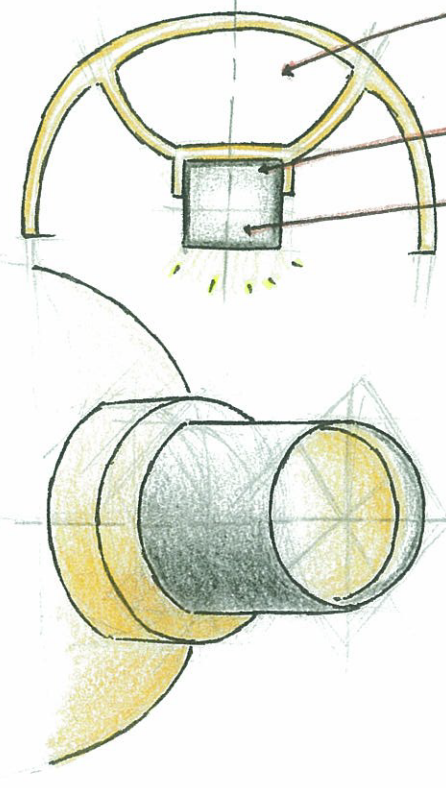
IN THIS IDEA, I HAVE MADE TWO PLASTIC POLES THAT'S STUCK TOGETHER WITH THE HEAD OF THE LAMP. THE LIGHT IS SLIPPED ONTO THESE TWO PLASTIC POLES. ALSO THERE IS A PLASTIC PANEL BEHIND THE LIGHT TO PREVENT THE LIGHT FROM FALLING OFF. AND TO SUPPORT THE LIGHT FROM PRESSURE WHEN SOMEONE PUSHES IT.



- \* PLASTIC POLE. (HOLLOW)
- \* BICYCLE LIGHT.
- \* IDEA 2.

I THINK THIS WILL BE THE BEST CHOICE SINCE THE LIGHT IS DESIGNED TO BE STRAPPED AROUND A METAL POLE (BICYCLE HANDLE). I WILL BE USING PLASTIC INSTEAD OF ALUMINIUM FOR THE POLE. THE POLE WILL BE STUCK TOGETHER WITH THE HEAD OF THE LAMP. AND THE POLE WILL BE HOLLOW IN THE INSIDE.

CHOSEN IDEA



- \* MADE IT HOLLOW IN THE INSIDE BECAUSE I DON'T WANT THICK PLASTIC.
- \* BICYCLE LIGHT GLUED.
- \* BICYCLE LIGHT.
- \* IDEA 3.

IN THIS IDEA, I HAVE REMOVED THE TWO CLIPS AT THE BACK OF THE BICYCLE LIGHT AND GLUED IT TO THE INSIDE OF THE HEAD WHICH IS DESIGNED TO FIT THE LIGHT. THE PROBLEM WITH THIS IDEA IS, WHEN THE LIGHT IS DEAD, BATTERIES CAN'T BE CHANGED BECAUSE THE BACK OF THE LIGHT IS GLUED.