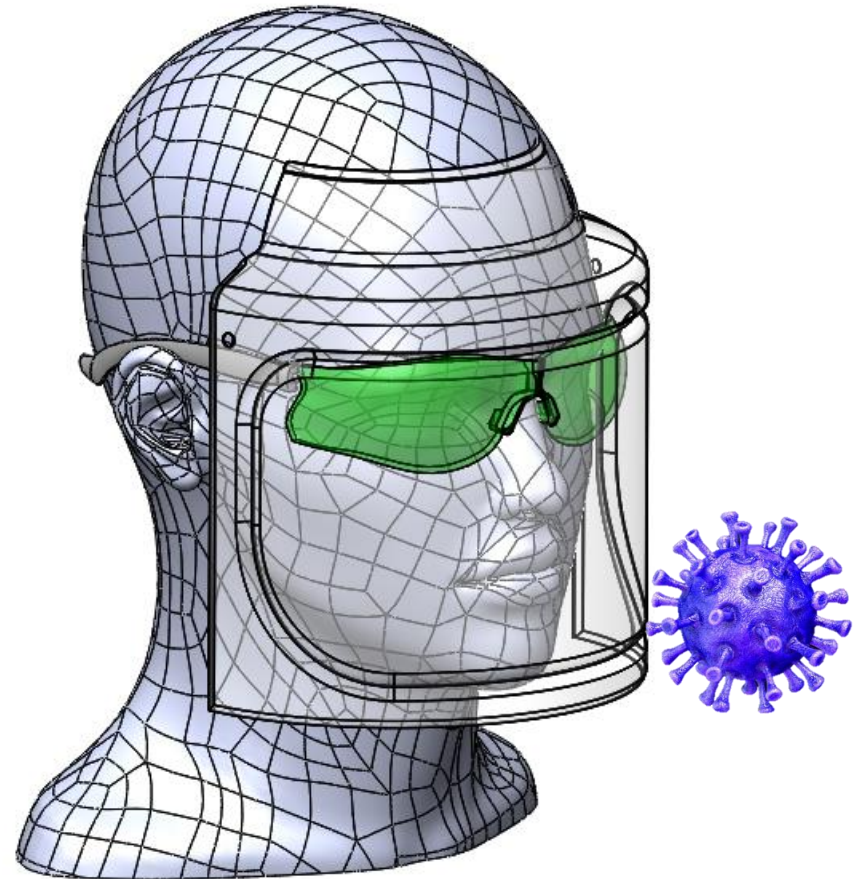




***Safety Mask
Made from
Recycled PET
Bottle.***





Main Project Concepts.



- Replacement of low-scale 3D printed masks, or home-made.
- Replacement of imported product of high cost or difficulty of acquisition.
- Taking advantage of the mechanical capabilities of the recycled PET resin.
- Use of existing preform tooling.
- Solution suitable for low-scale to high-speed manufacturing with manual or robotized processes.
- Use of installed capacity throughout the country for the manufacture of water bottles of various scales.
- Immediate technical feasibility.
- Low cost of blow mold tooling.
- Deployment on an industrial scale in a few days.
- Technical Partnership MDT + Preform makers + Bottle or drinks manufacturers.





Face mask project



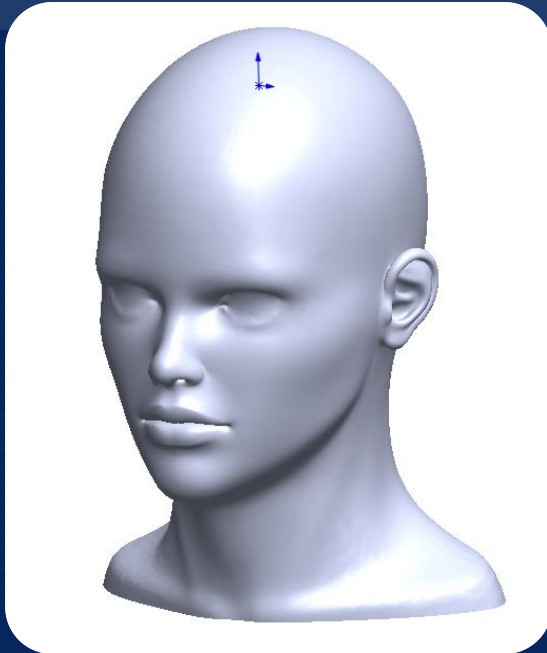
- **Requirements**

- Provision of a simple and low production cost device.
- Taking advantage of the productive resources of other non-healthcare focused industries.
- Product suitable for production on an industrial scale.
- Scalability at country or region level.
- Low tooling investment.
- Use of existing materials originally intended for other uses.
- Single use, fully disposable.





Design parameters:



- **Ergonomic Requirements.**

- 100% facial coverage.
- Separation of the protective shield from face.
- Space for the use of safety glasses.
- Adaptability to different head sizes.
- Effective fixation to the head.
- Removing with one hand.
- Light.
- Cristal clear.





Design parameters:

- **Resin – Preform – Blown.**

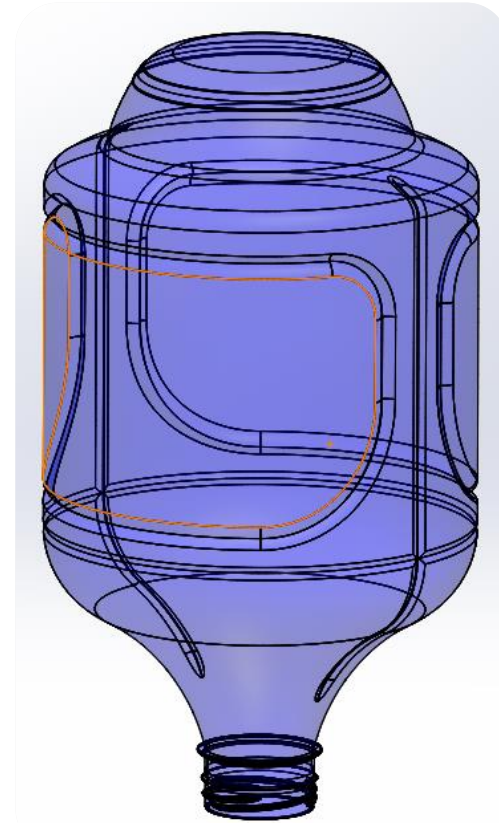


- Preferred use of Post-consumer PET (PCR)
- Clear resin.
- Target weight 83g. Available weights 94g, 148g (search for optimal thicknesses for the function).
- Target weight 58g for the 3L versión.
- Preform injected under food grade conditions.
- Blown in any machine suitable for 6L bottles.
- Low blower process capacity requirement.
- Geometric profile that prioritizes the distribution of resin and transparency.



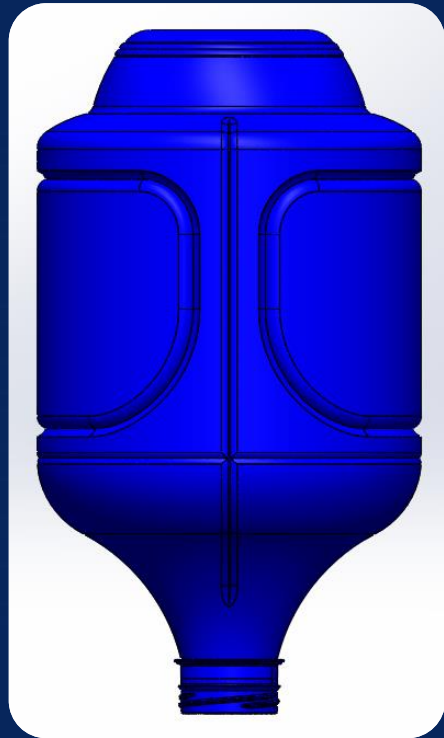


***Safety Mask
Made from
Recycled PET
6L Bottle.***

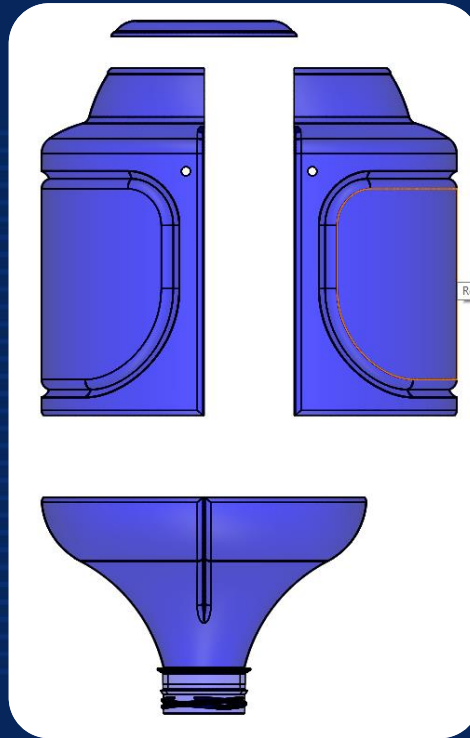




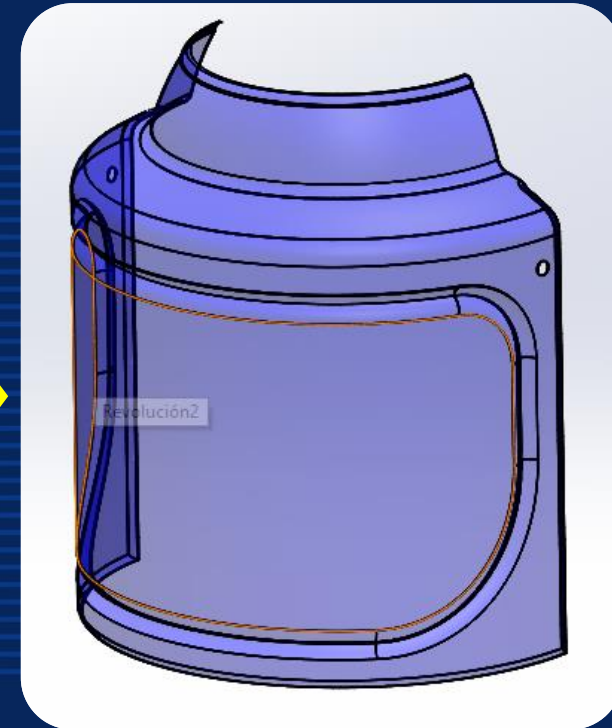
Proposal for a single piece PET solution:



Initial bottle



Cut scheme.
2 units are obtained.

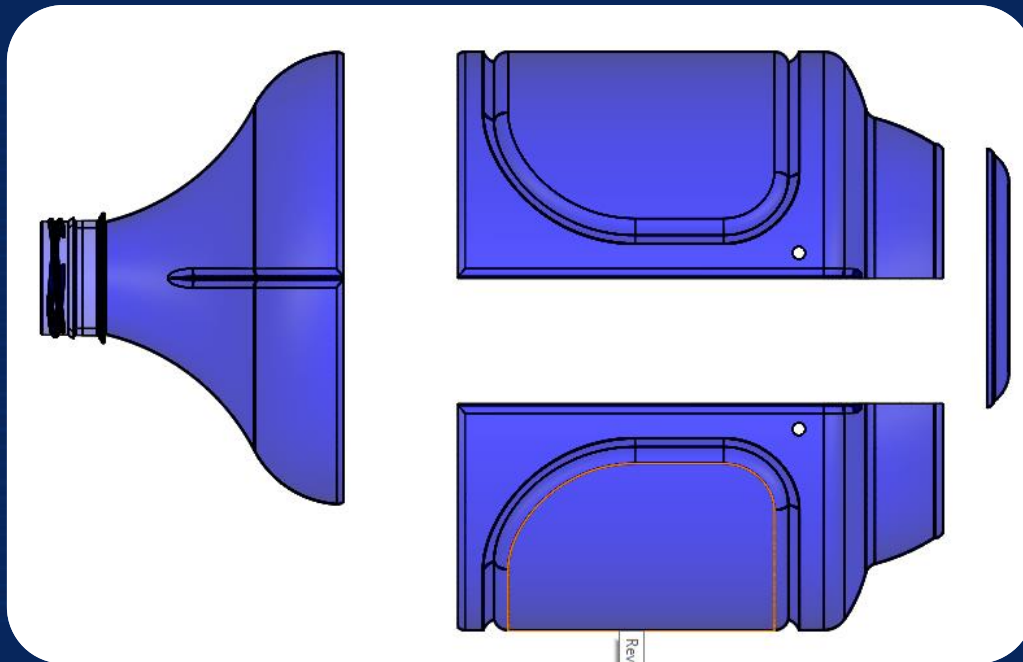


Safety mask obtained





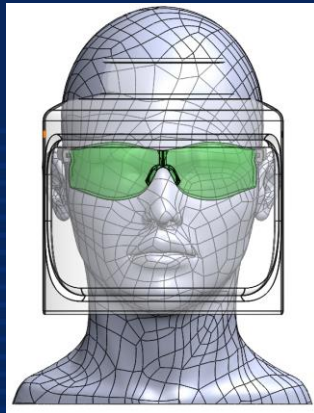
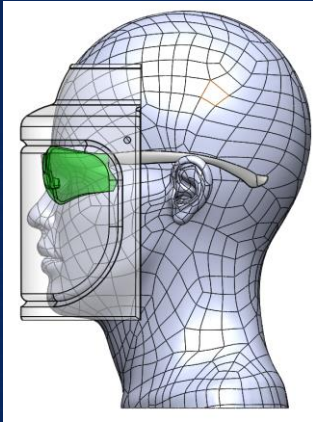
Linear cutting process.



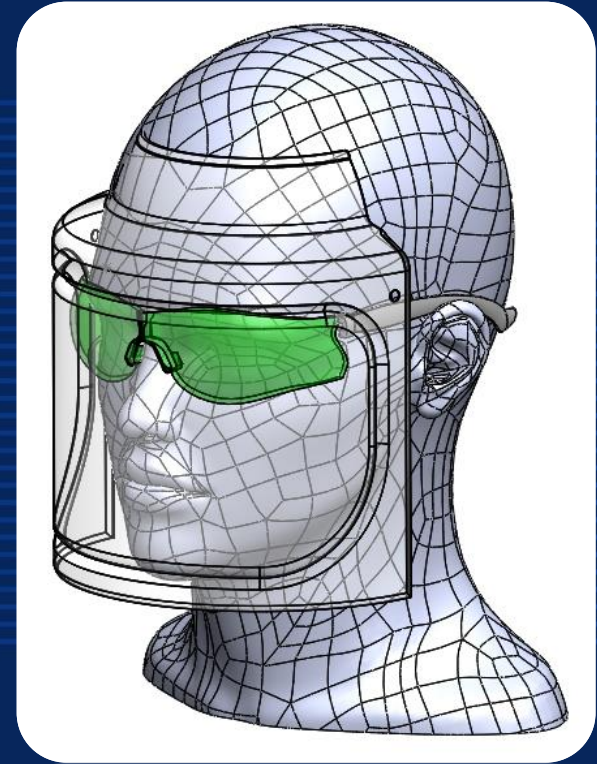
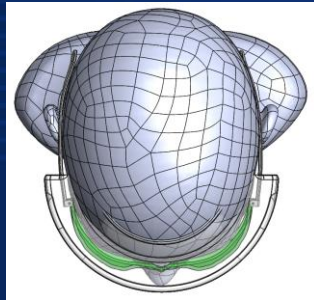
- From the blowing process, marks are made where the cuts must be made.
- The cut can be done with scissors.
- Cutting can be industrialized using blades or hot wire
*process used for sectional cutting of PET bottles.



Proposal for a single piece PET solution:

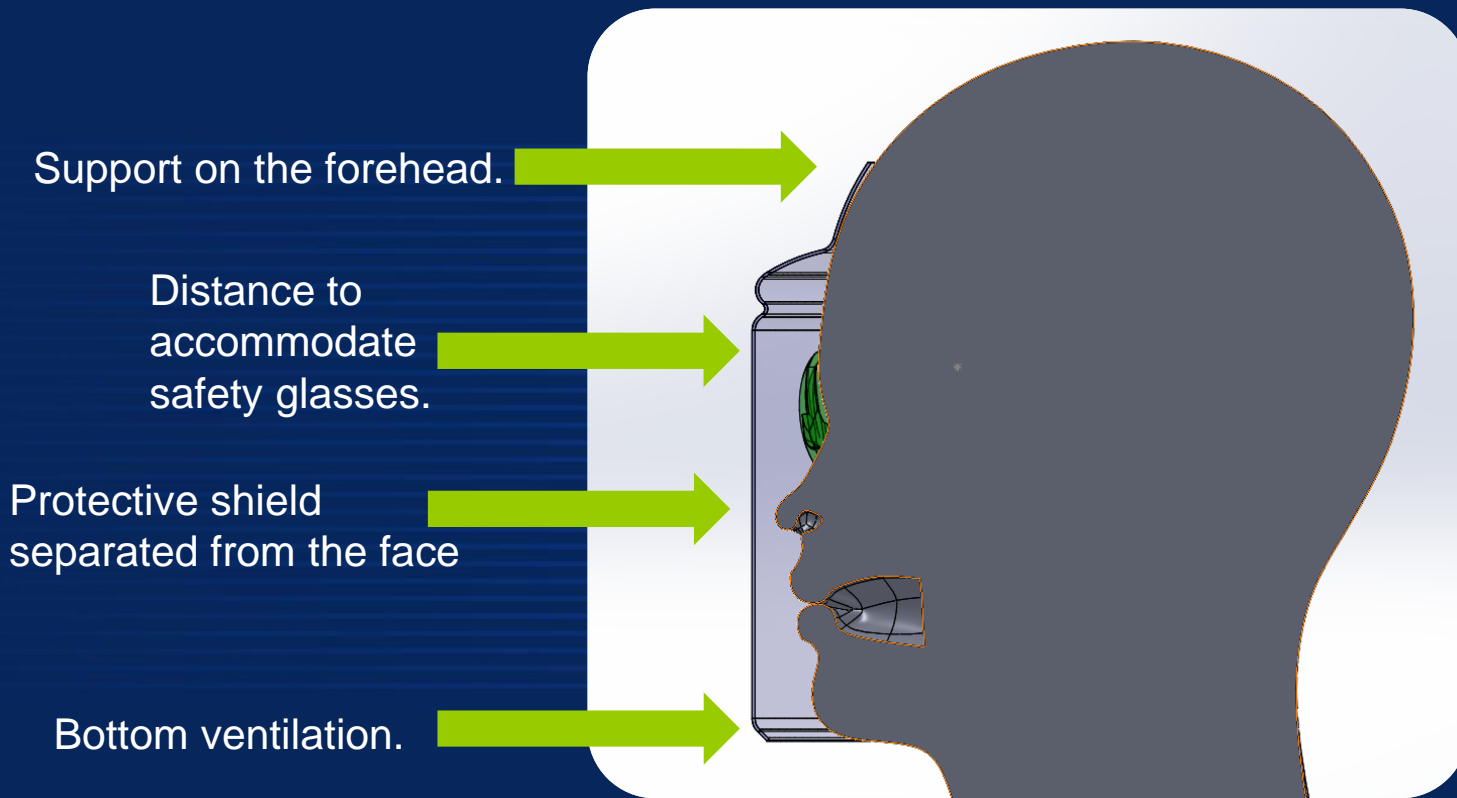


**Mounted safety mask
with safety glasses.**



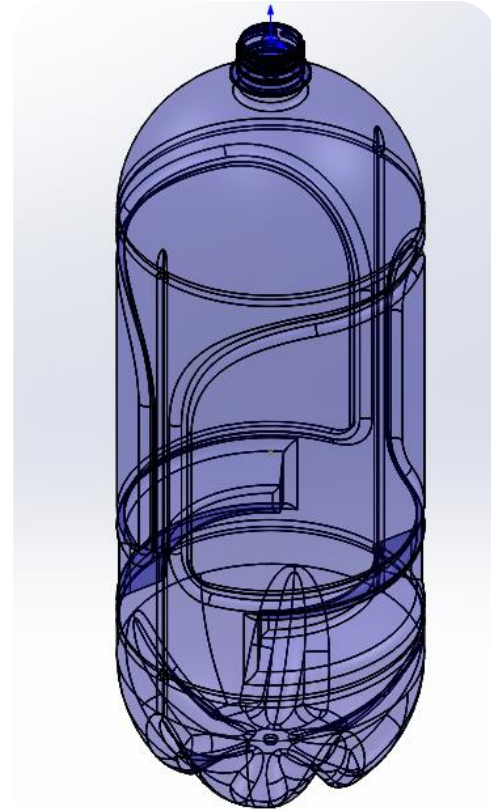


Proposal for a single piece PET solution:



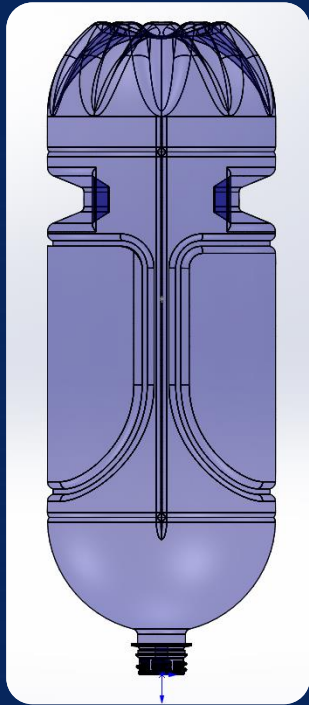


***Safety Mask
Made from
Recycled PET
3L Bottle.***

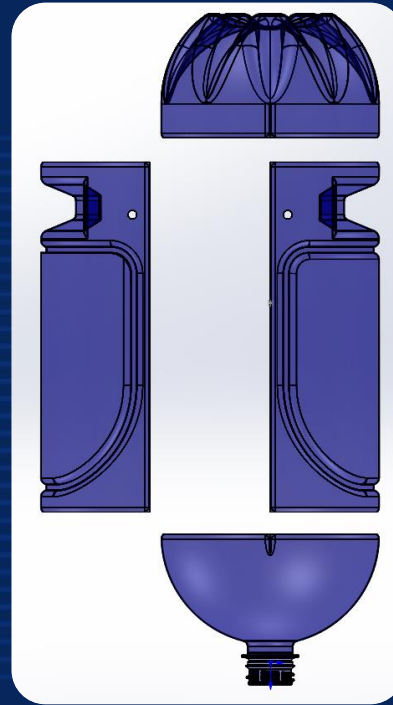




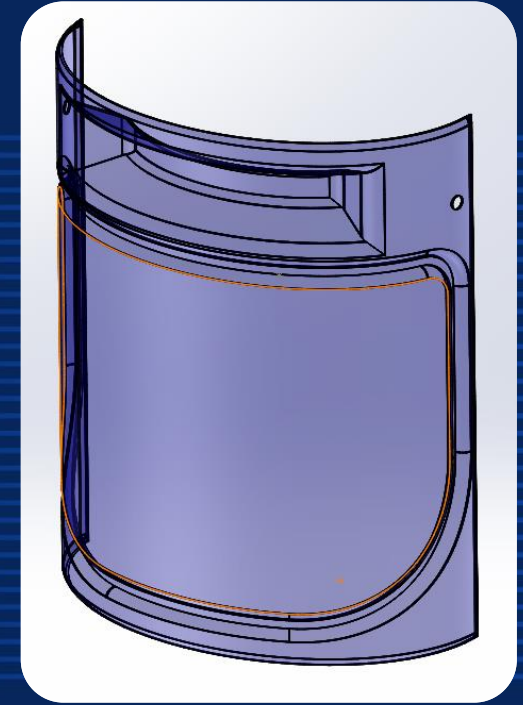
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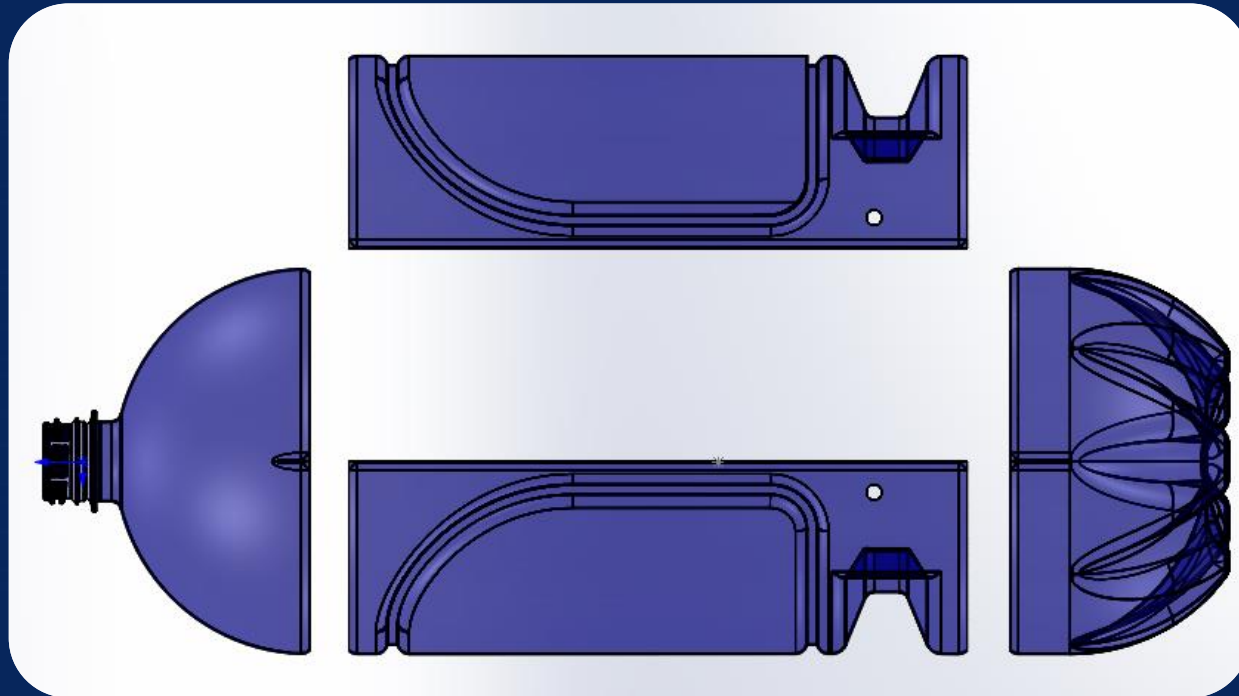


Safety mask obtained





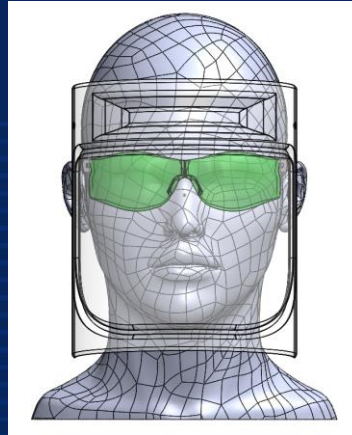
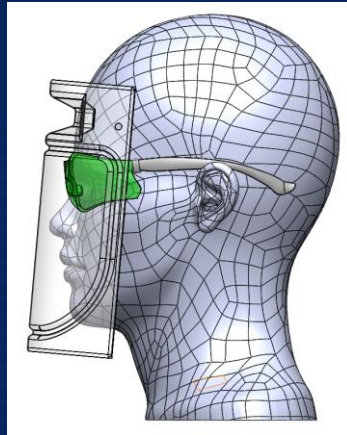
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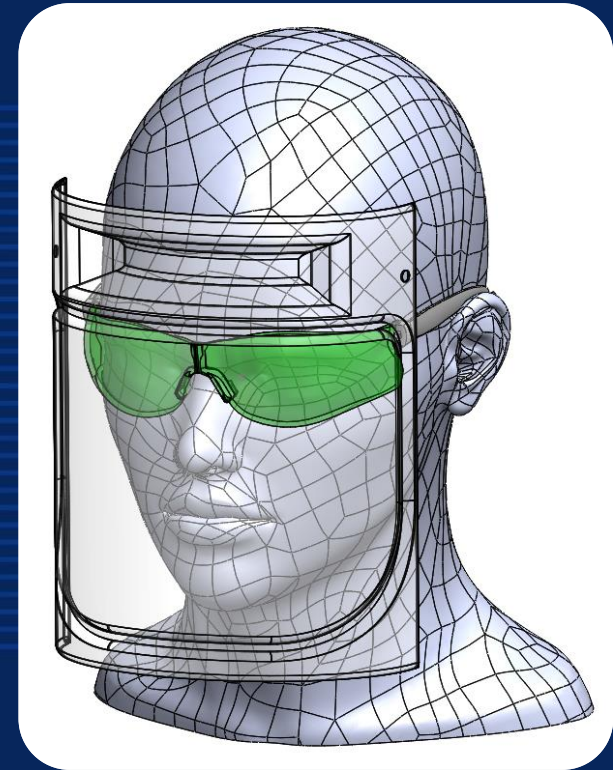
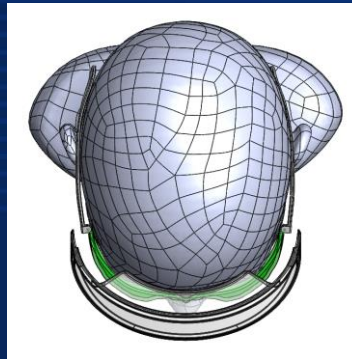
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*process used for sectional cutting of PET bottles.



Proposal for a single piece PET solution:



**Mounted safety mask
with safety glasses.**





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**MUCHAS GRACIAS
Muito Obrigado
Thank You Very Much
Merci Beaucoup
Veilen Dank**

