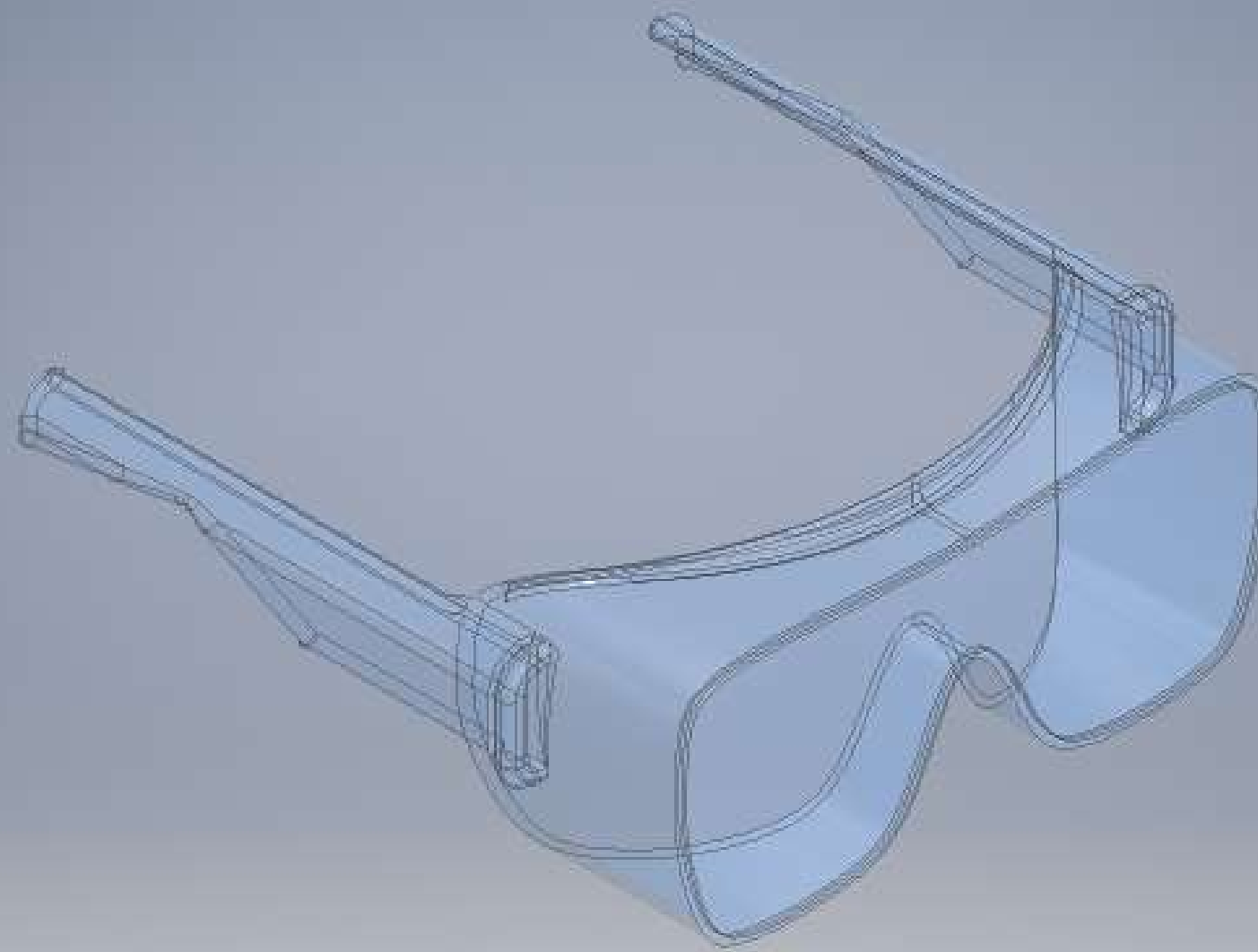


# SAFETY GLASSES DESIGN PROPOSAL



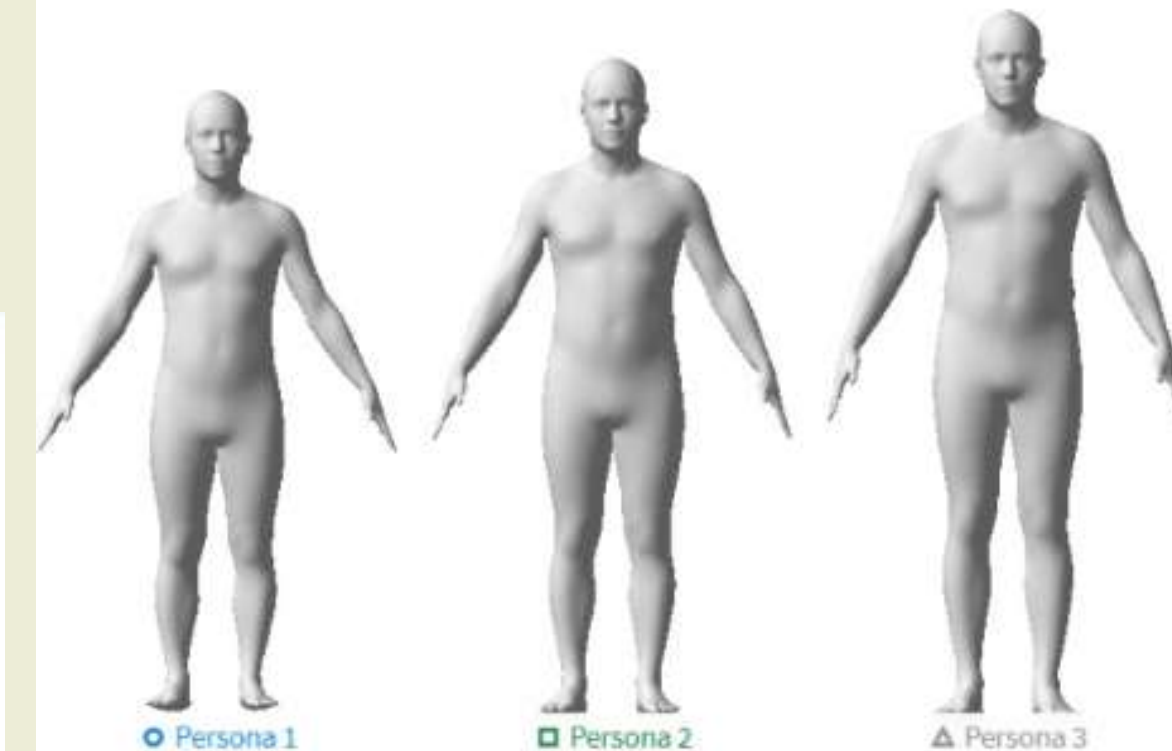
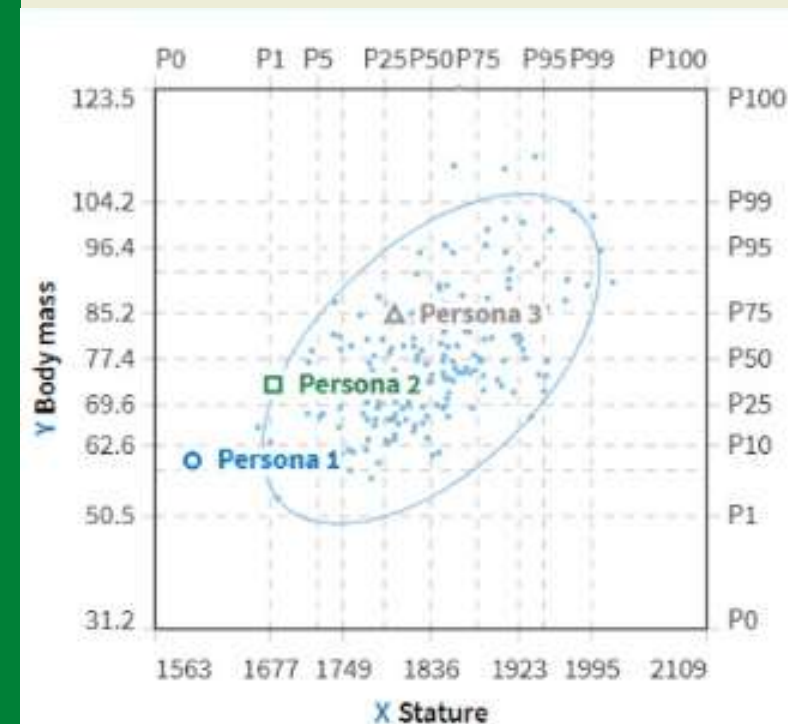
## Introduction

The design of safety glasses in a light and resistant polymer, thinking about the industrial applicability by the operators in Ecuador, in this situation we have thought about the users belonging to all the percentiles, being inclusive with the extremes, we have taken the anthropometric tables of Mexico for the resemblance to Ecuadorian genetics.

## Anthropometric data

For anthropometric data, tables of the Mexican inhabitants have been used, due to the similarity in dimensions with most Latin American nations, taking dimensions similar to the P5, P50, P95 percentile.

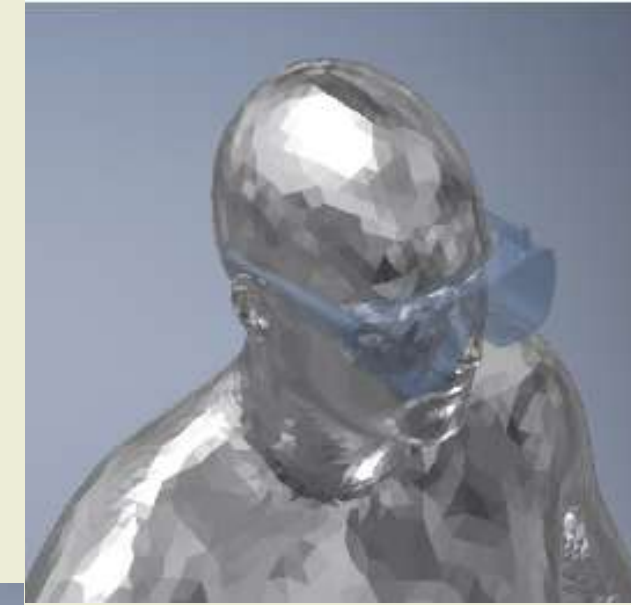
X	Stature	1600 mm	1680 mm	1800 mm
Y	Body mass	60 kg	73 kg	85 kg
...	Head circumference	540 mm	569 mm	597 mm
...	Head breadth	135 mm	155 mm	168 mm



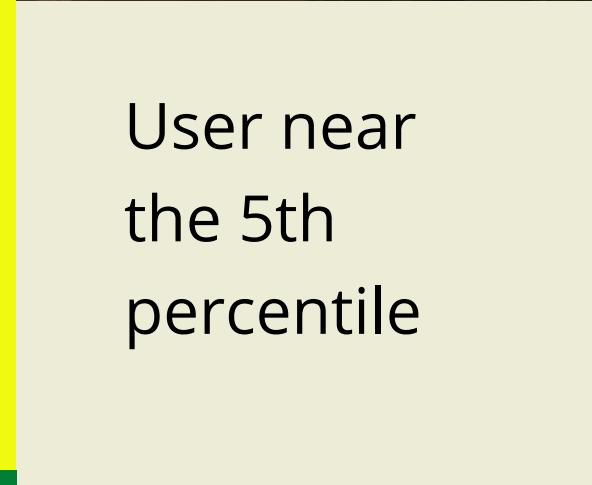
# VALIDATION OF SAFETY GLASSES DESIGN



User near the  
50th percentile



User near the  
50th percentile



User near  
the 5th  
percentile

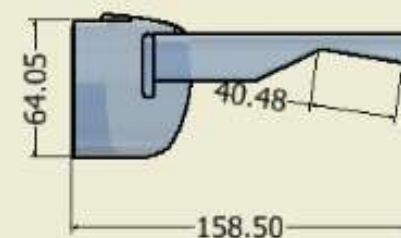
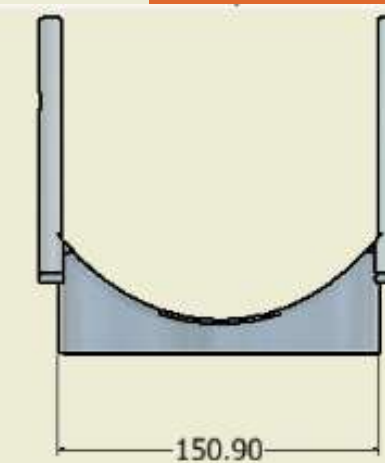


A simple, adaptable  
and economical system  
is presented.

Its material is  
polycarbonate, which  
makes it safe and light,  
which can be  
manufactured through  
plastic injection.

It is presented in order to present a product according to the Ecuadorian population, and thanks to DINED software, it is possible to model three different dimensions, including even the extreme percentiles. As can be seen, although it is impossible to achieve ergonomic comfort in all three cases, it is still adaptable to all three examples.

Playing with regulations will cause an economic increase in personal protective equipment.



Gudiño Paul