

# WORKSHOP

## VR Virtual Reality



- .- VR GLASSES
- .- CARDBOARD APK
- .- XILISOFT

## 1.-Virtual reality

To start talking about how videos are made in virtual reality, let's start by knowing: What is virtual reality and how does it work?

- There are two types of virtual reality, immersed virtual reality and virtual reality not immersed, immersed reality as its own name suggests allows people to be perceived within the virtual environment through various devices, such as HDM visor helmets, gloves and other accessories that allow you to capture the position and movements that the person makes with their body.

And not immersed virtual reality also known as desktop virtual reality, it resembles internet browsing, since it is a kind of navigation, in which only the computer is used, because it does not require the use of other dispositives. This type of virtual reality has been widespread and widely accepted, since it works by representing an unreal world in the space of a window on the desktop of the PC. A lot of video games that are currently commercialized have incorporated some elements of virtual reality not immersed.

Now that we understand a little more than this is virtual reality let's see how to create our videos and see them with our VR glasses.

## 1.1.- Virtual reality glasses

These are the virtual reality glasses that we will use, but before knowing how to use them we will learn what it is that makes us able to watch a video in VR.



How do virtual reality glasses work?

To start with there are two types of glasses, the cheapest are those that use a mobile device to show videos or games, and there are other types of glasses that are more expensive that bring the screen incorporated in the lens of the device. We will explain how both types of glasses work.

The lenses of the glasses expand the angle of vision and generate a 3D image to create the feeling that is within the scene, which makes it very realistic. But in addition, its technology gets our brain to believe that it really is there, so it reacts as if everything were real.

To enjoy virtual reality you only need two fundamental devices, the glasses that surround the eyes and the computer device that creates the virtual environment, the virtual reality glasses have a

screen and some lenses. The screen can be incorporated as standard in the glasses or use the mobile for it. The computer device generates two different images, one for each eye, thus achieving the effect of realism that we see in 3D movies.

In addition, virtual reality glasses have motion sensors, so that the environment created responds based on the movement of the user's head, giving the feeling that we can freely observe our environment in 360°. Of course, if they are for mobile, it is important to make sure that your phone is compatible with virtual reality applications and that it has a gyroscope. This element allows the Smartphone to determine the position and orientation, which is essential for the application to work properly.

Once we know this, using the glasses is the simplest thing, the only thing we have to do in our case is to take out the slot where we will introduce our Smartphone with the previously set video and enjoy the experience.

## 2.- How to assemble Cardboard VR glasses



## 2.1.- Your package contain:



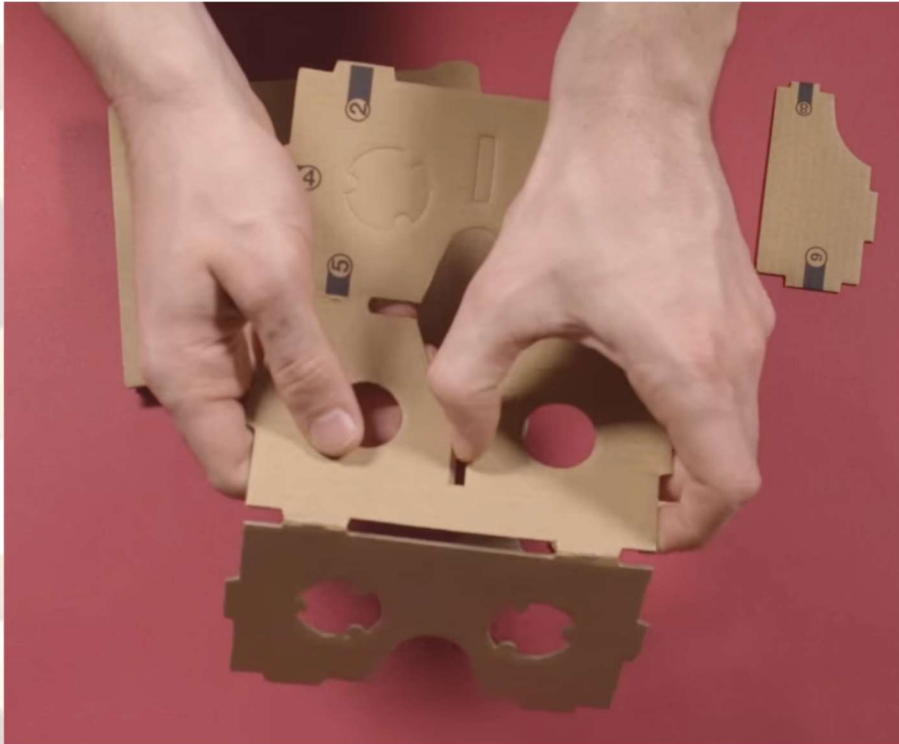
- 3 Cardboard template
- 2 Lenses
- 2 Magnets
- Velcros



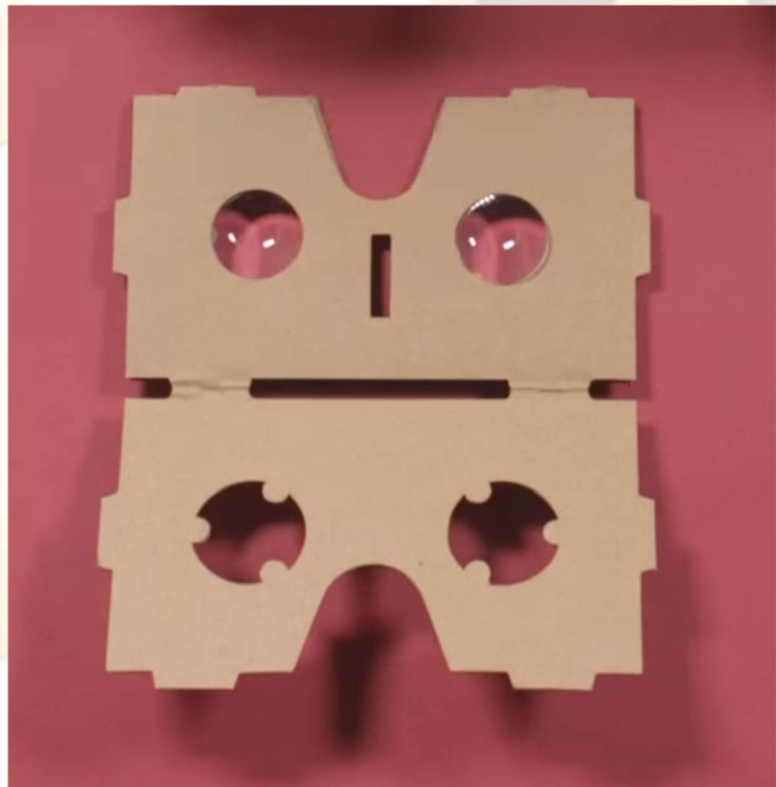
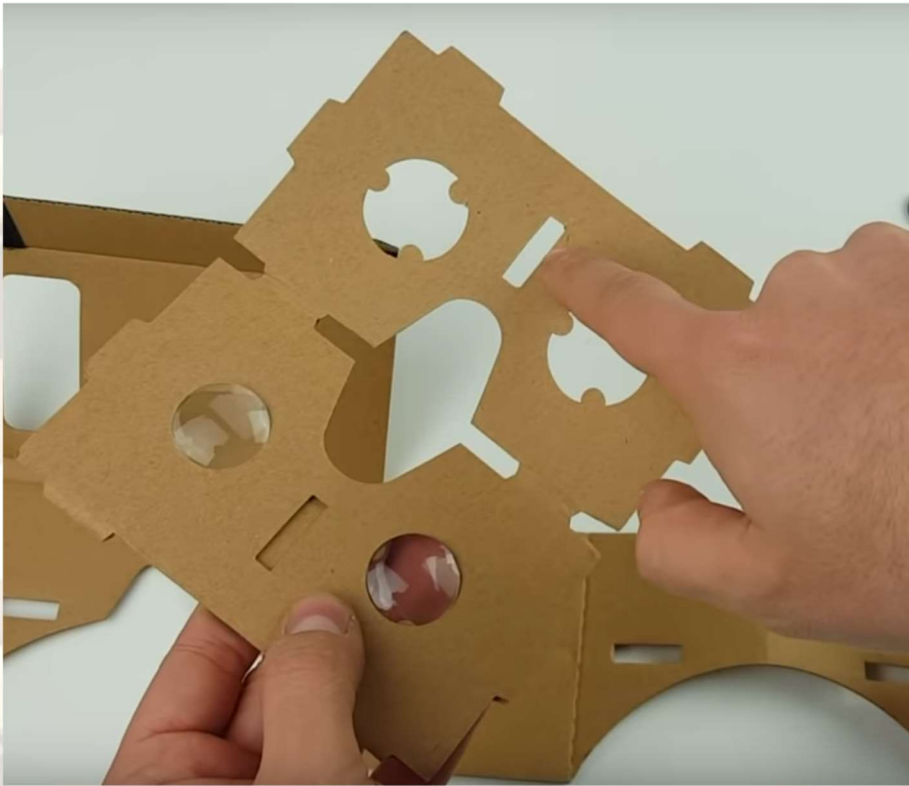
- Elastic band



2.2.- We prepare the cardboard templates by removing the marked parts

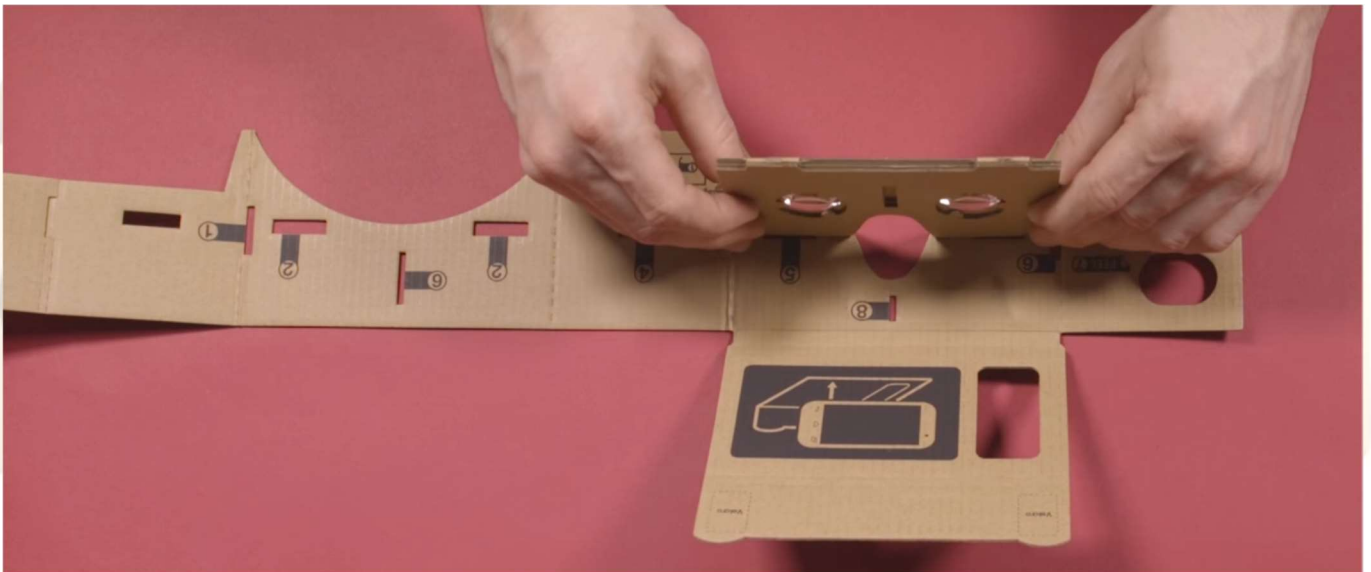


### 2.3.- Place the lenses in the template

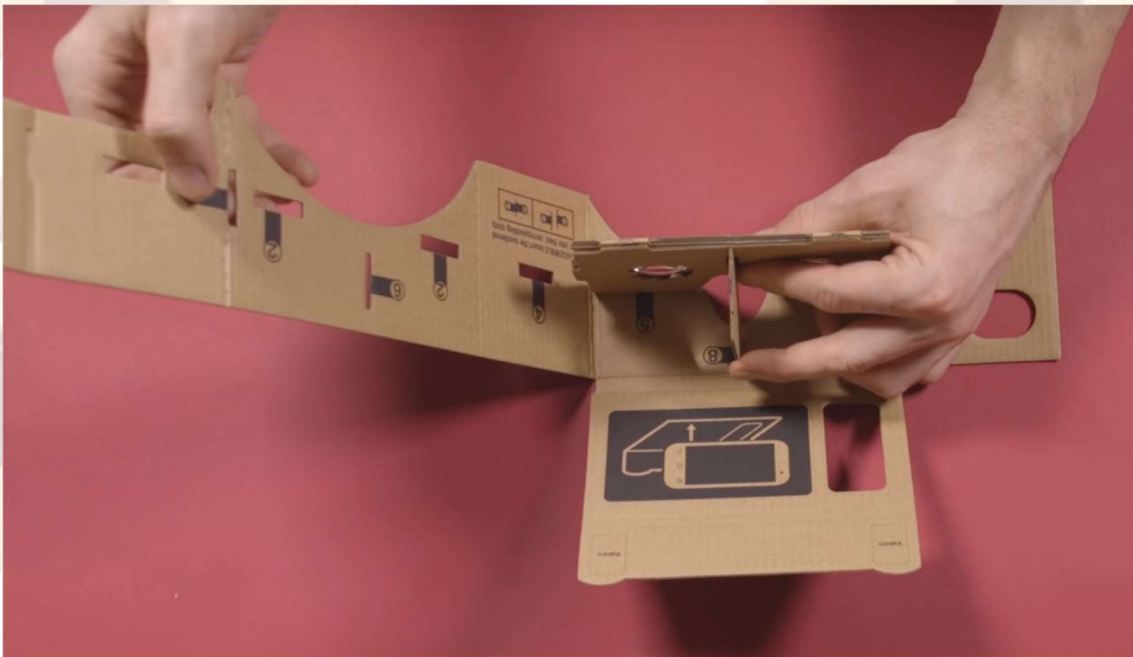
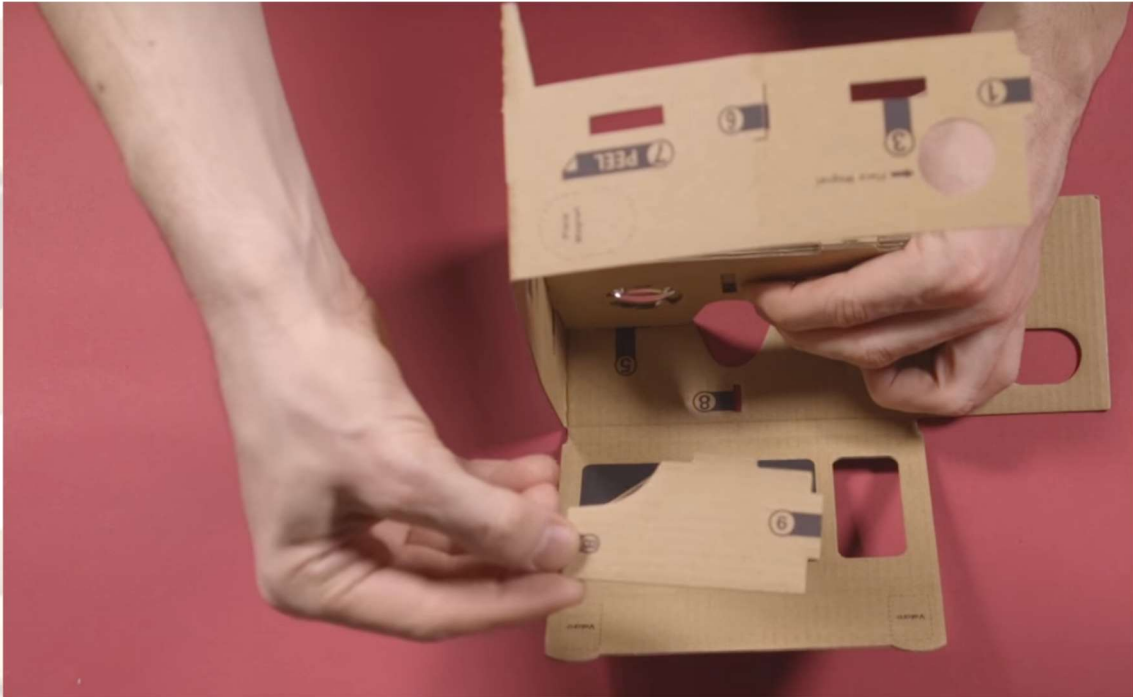




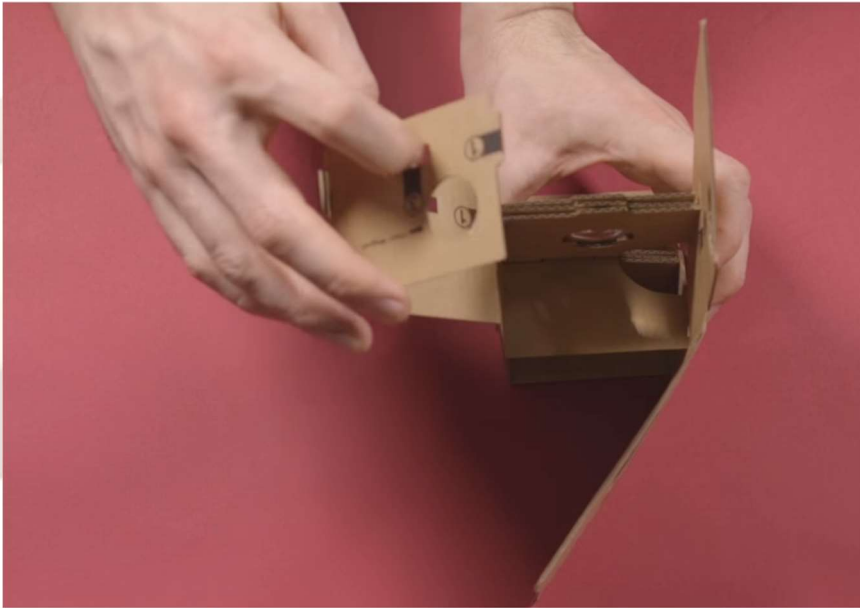
2.4.- Assemble the templates of the lenses with the template of the glasses.



2.5.- We place the nose template inside the template of the glasses before closing it



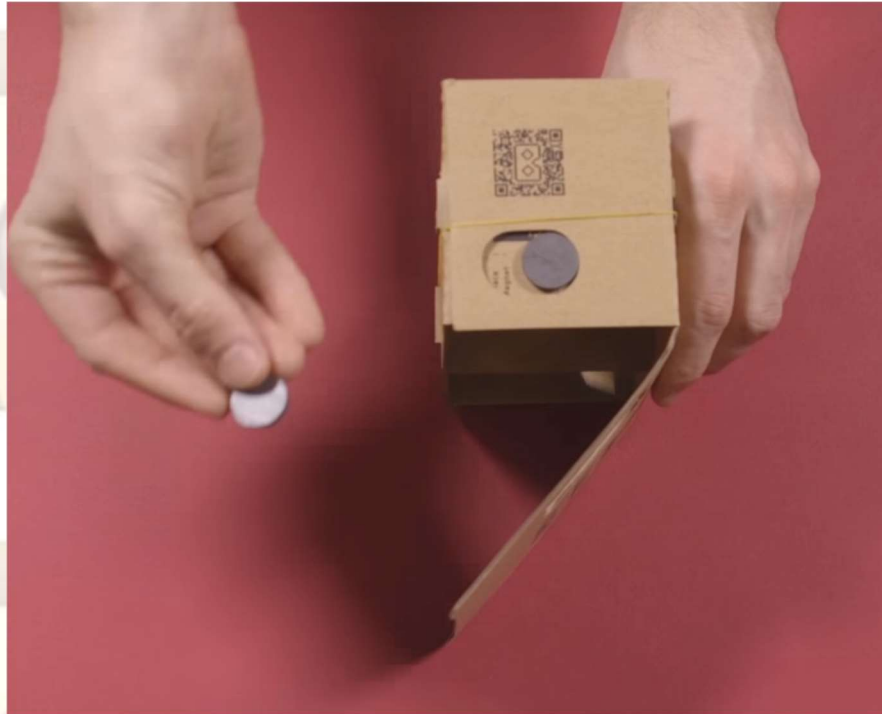
2.6.- We close the template of the glasses



2.7.- And we hold it with a rubber band



2.8.- We place the magnets on the template of the glasses, one on the outside and one on the inside, both in the spaces intended for them.



2.9.- We put the velcros



2.10.- We remove the velcros protectors



2.11.- We close the template of the glasses so that the velcro sticks on the closure



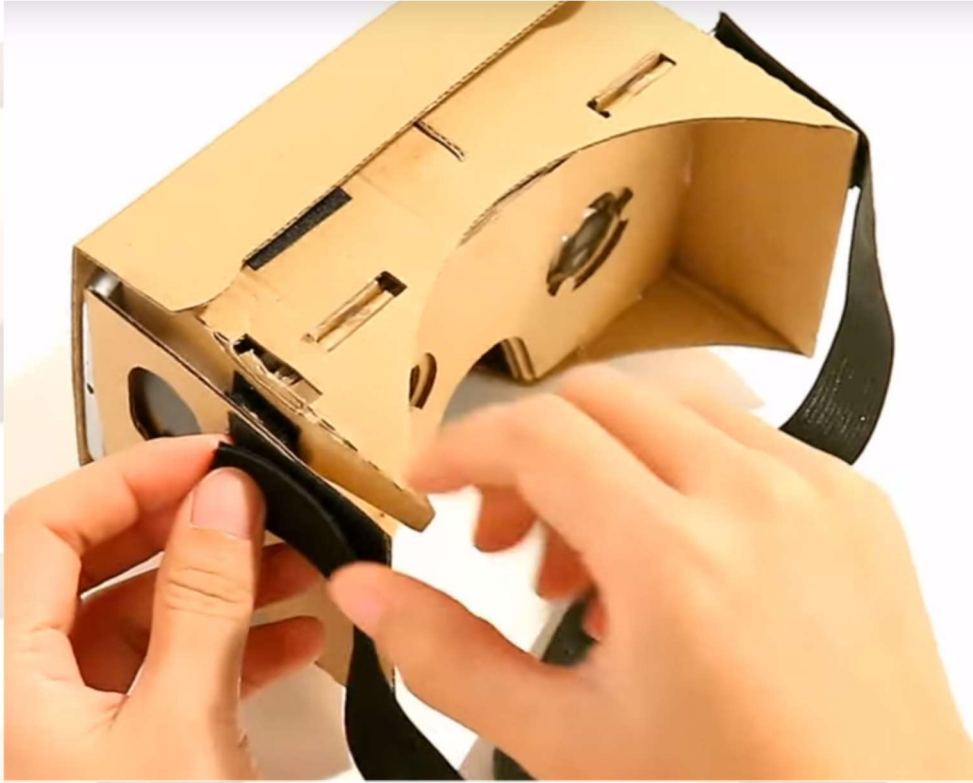
2.12.- We stick the felt protector across the contact surface of the glasses with the face



2.13.- We stick the Velcro of the elastic band



2.14.- We put the elastic tape that will hold the glasses to the head



2.15.- Put the mobile phone inside de glasses.



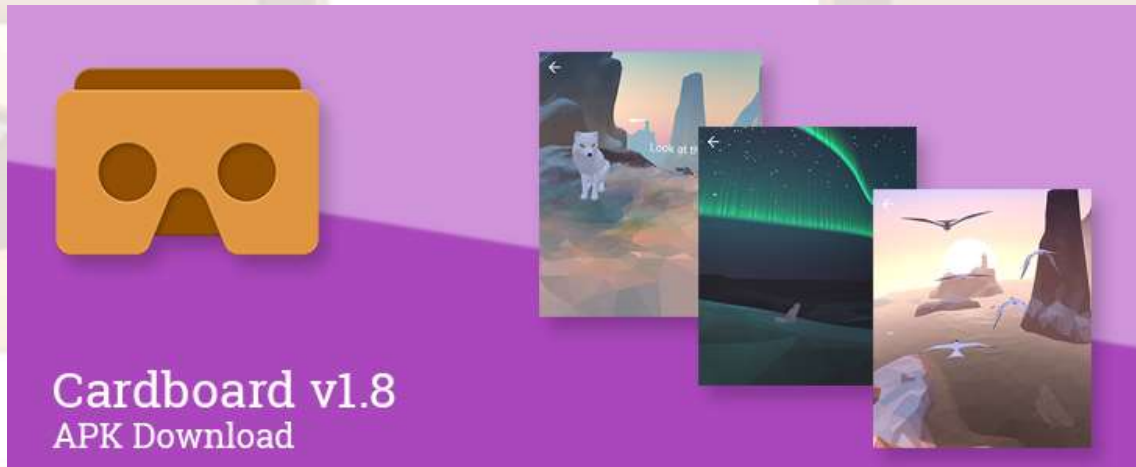


2.16.- We already have our card boards ready to work.

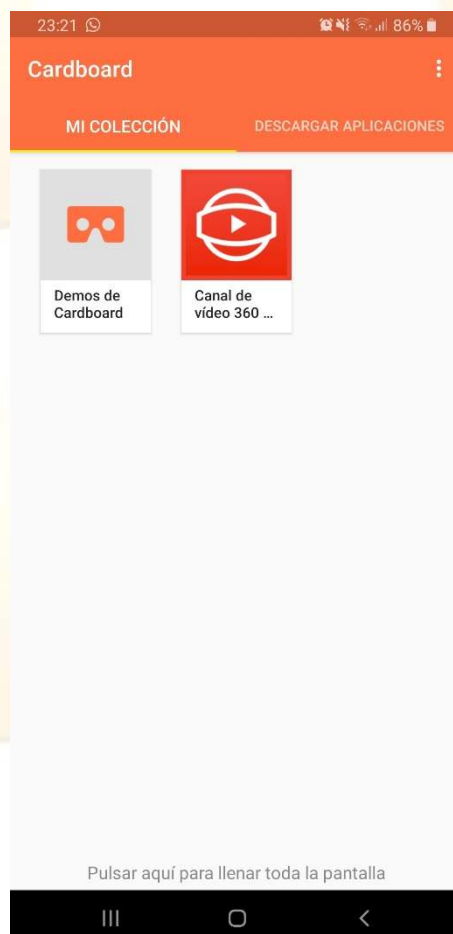


### 3.- CARDBOARD APK

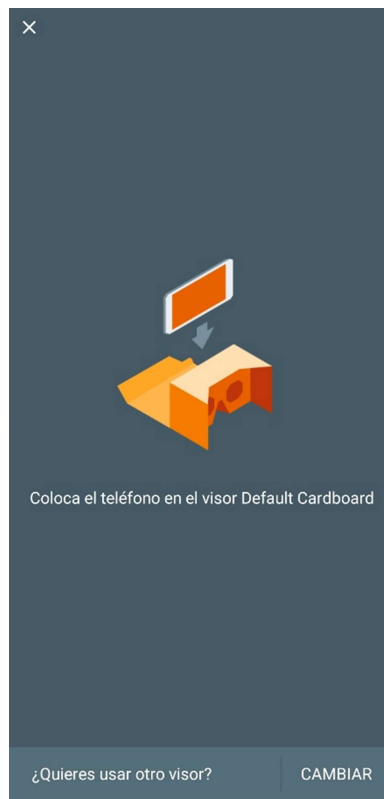
The CARDBOARD application can be downloaded from the PLAY STORE



When starting the apk, this screen appears, and we must choose demos



This screen appears, indicating that you have to put the phone horizontally, and the moment you do, switch to the next screen

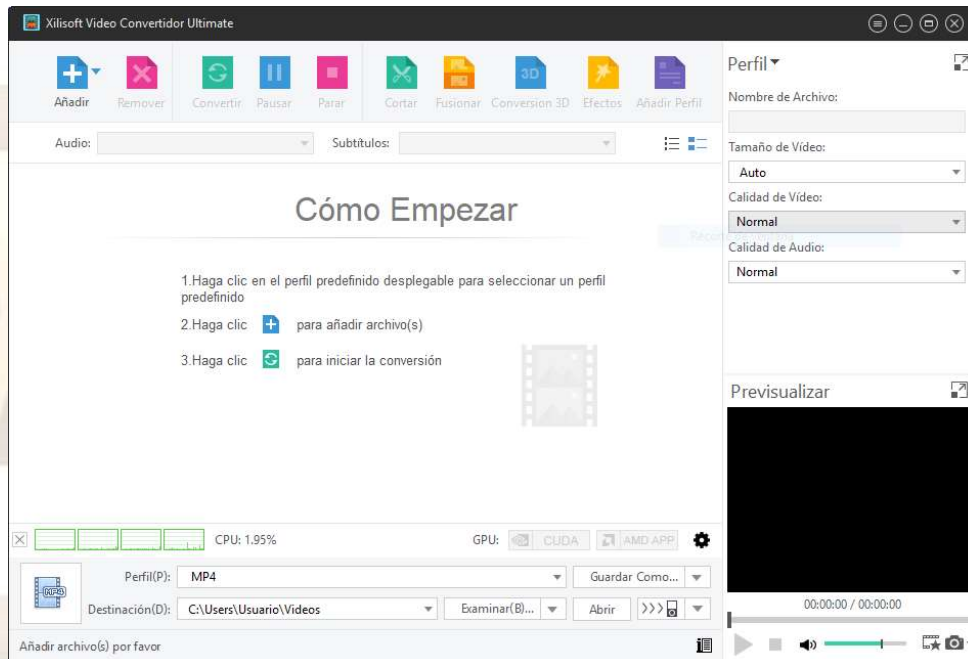


On this screen, you can choose between different viewing options, including the videos on your phone.



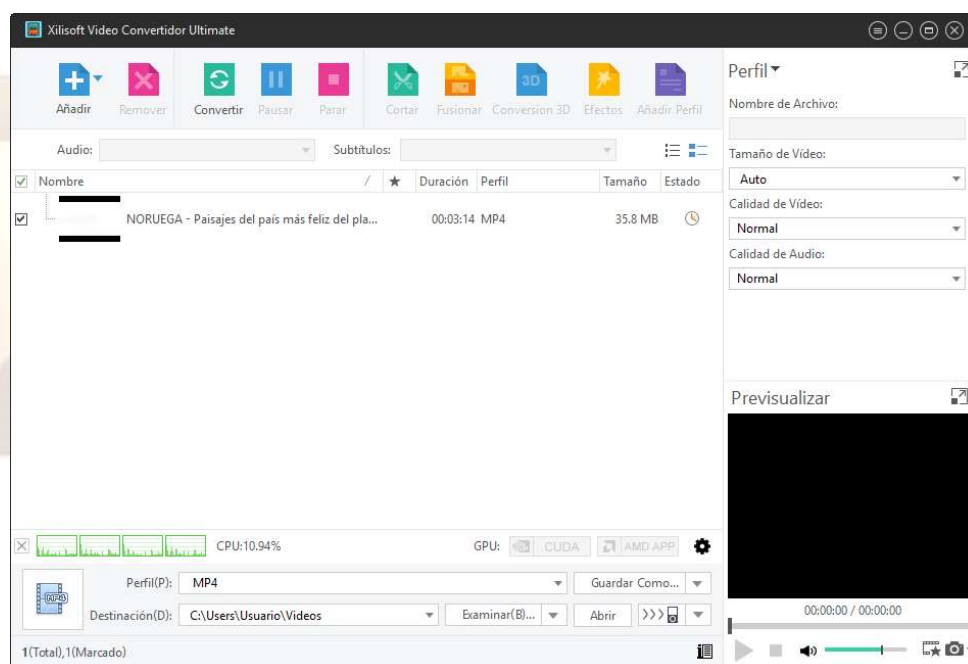
## 4.- Xilisoft Video Converter

This will be the program that we will use to create our videos.

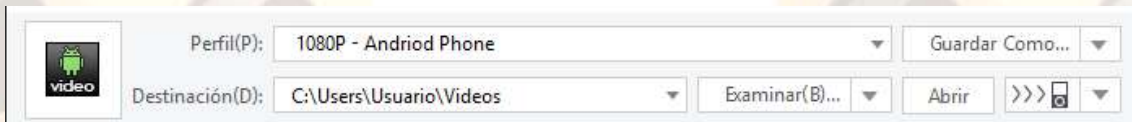


To create our first video we will need the video in question and we will click on the add option that is seen in the upper left corner.

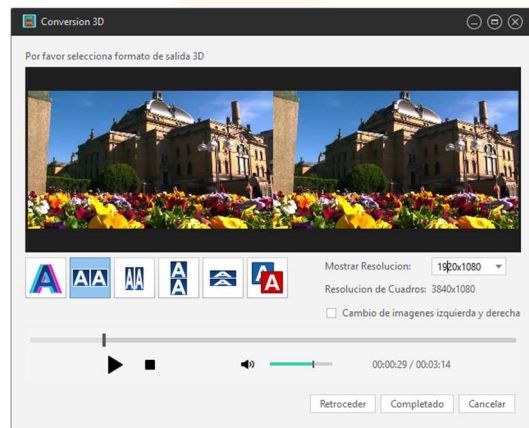
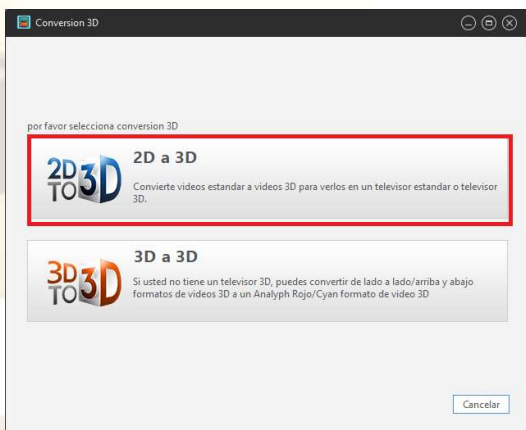
When clicking on add we will go to the folder in which the video is found, we select it and open it in the application.



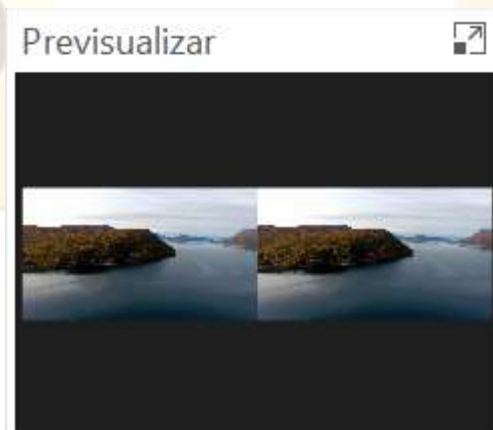
Once we have the video inside we can choose the video format and what quality we want, it is also possible to choose the device: if we are going to see it on a computer with virtual reality glasses or on our phone with an application that we will say later. In our case we will choose the option Android Phone 1080P to see it on an Android phone but it is also compatible for tablets, iPhone, iPads, etc ...



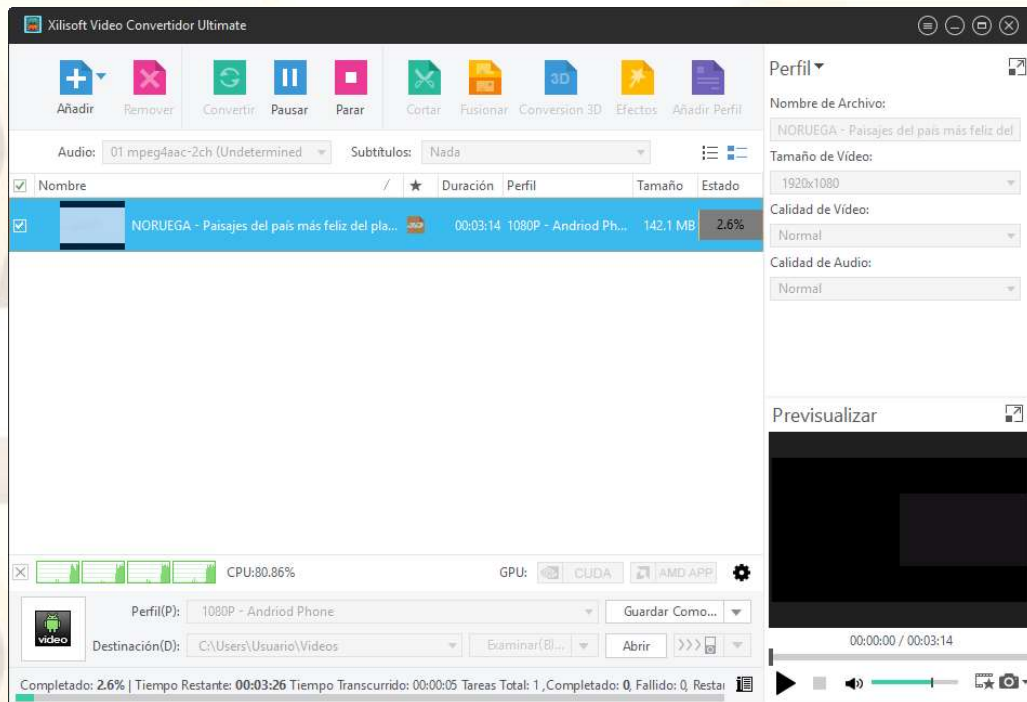
Now we turn to convert the video into "3D" because right now it only has one image and in some glasses it would be impossible to see it, for that we will have to click on the 3D Conversion option at the top and choose the configuration that will be shown in the following ones images.



When we have completed those steps we can see that in the Preview tab you can see the video as we have configured it.



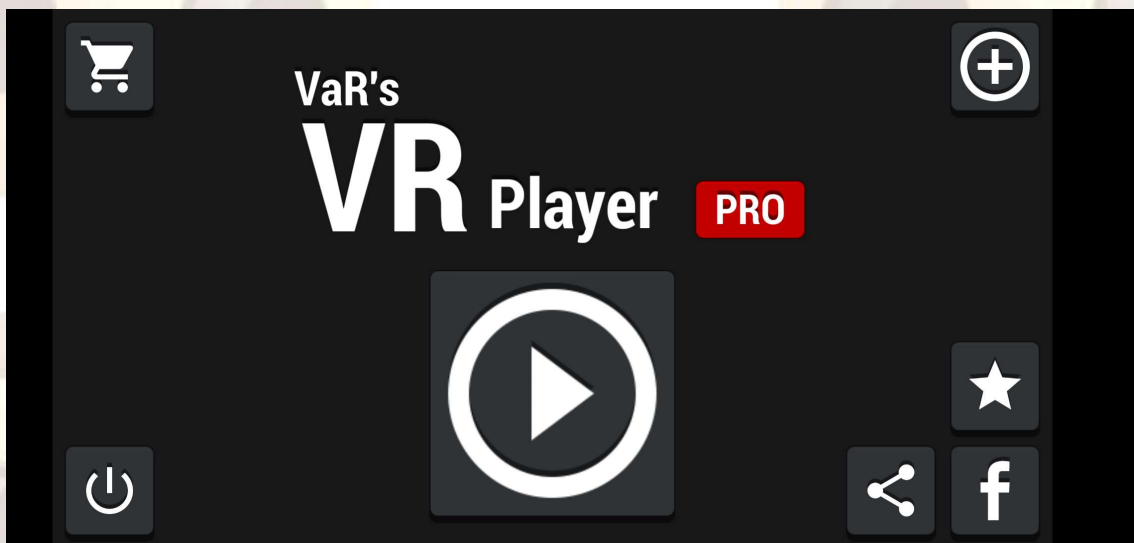
The final step will be to convert the video to see it later. To do this we will click on the option Convert and start converting the video. To know where it is stored, you have to look at the "destination" option that is just below where we chose the video format.



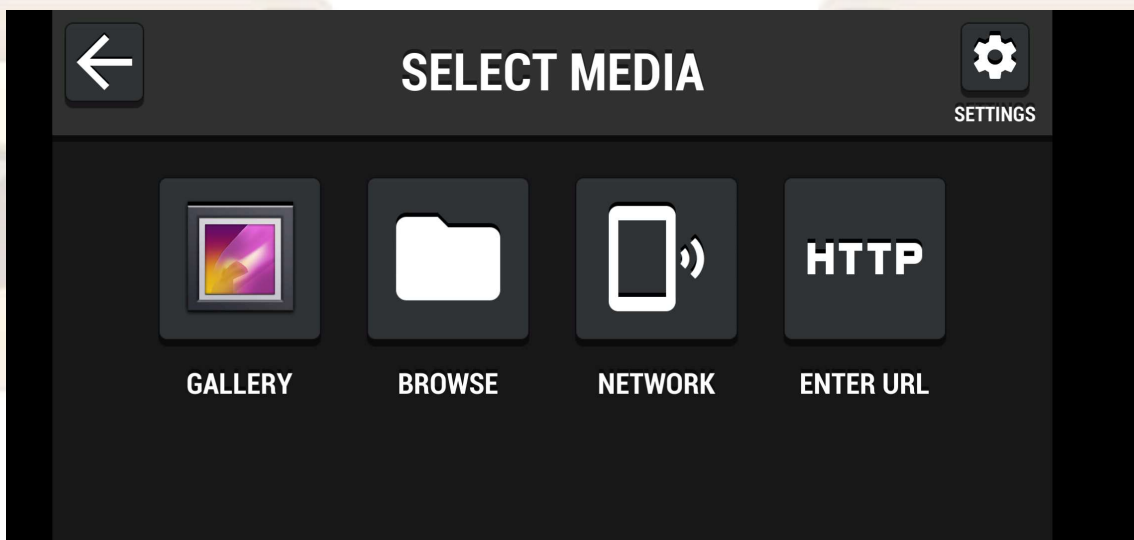
When we have our video we will proceed to pass the video from the computer to the mobile to be able to see the video with our glasses.

## 5.- VaR's VR Video Player PRO

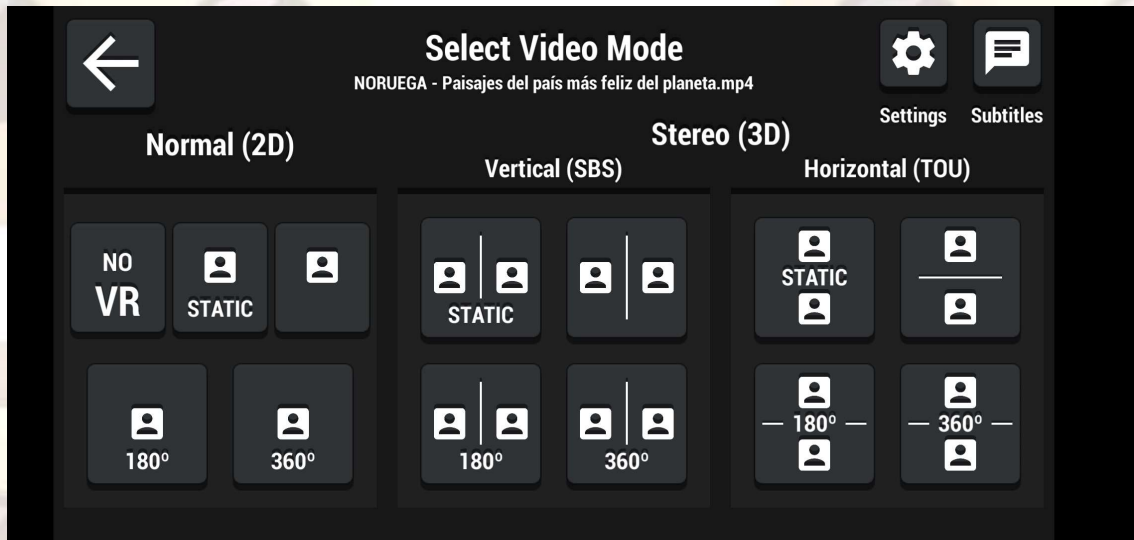
This will be the application that we will use to watch our videos in virtual reality, the application can be downloaded from the Play Store without any problem. Once we have the video on our phone and the installed application we proceed to watch our video in virtual reality.



This will be the first image that we will have when we open the application, we give the play button and it will show the following screen.



In this screen it will allow us to choose a video from our gallery, search for it through our device, it will also allow us to connect to other devices to access the videos that we want, or through URL but I tried to access videos via URL and it has not worked , right now the most viable option is to have the video on your mobile and take it from our gallery.



After choosing the video we will choose the central option since our virtual reality glasses are horizontal, we choose the option 360 degrees and the video will start playing.