



TI Reverse Engineering Online Challengue

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Number TEAM

47800A

Location

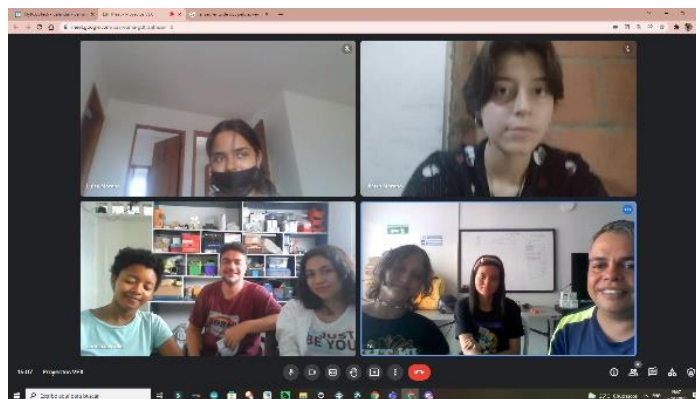
Valle del cauca, Colombia



Table of Contents

Introduction	¡Error! Marcador no definido.
Specifications	¡Error! Marcador no definido.
Queries VEX.....	¡Error! Marcador no definido.
Illustrative table	¡Error! Marcador no definido.
Photographic evidence	¡Error! Marcador no definido.

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Introduction

This is a document of support where progress are presented made from the various meetings convened on the occasion of our development of the reverse engineering challenge. From now on, a brief description of every process we've been through, managed to answers the questions that have been raised by the challenge

Specifications

- ✓ Any PSU or battery must be disconnected or removed before disarmament.
- ✓ Use must glasses of security during the disarmament process.



After meeting the specifications of challenge, we add an extra step to disarmament process. It is about cleaning the device.



Photo 1



Photo 2



Queries VEX

What type of device you choose to explore and why?

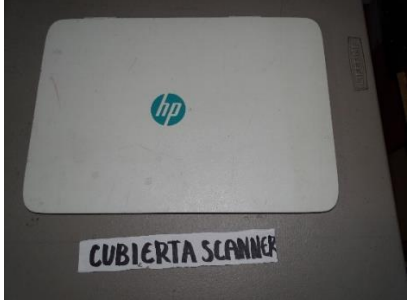

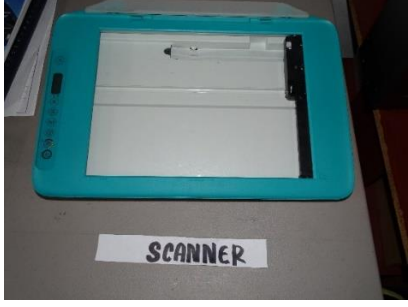





The printer is a peripheral output device which allows you to connect to our computer. Explore its functioning and the electronic elements that lead to it is an effective way to be autonomous in solving unforeseen errors, the reinvention of its operations or the replacement of its parts. It expands our knowledge and creativity through the sense of doubt, that leads us to think about how to optimize it.





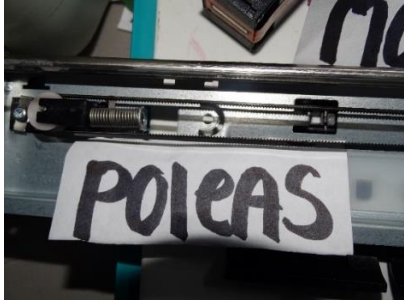









¿What identifiable pieces did you find during the disarmament process?

Illustrative Table

TYPE OF PIECE	IMAGE	
External cover scanner		
Semiexternal Scanner		
Of operation Print rail		
Semiexternal ink cartridges		



<p>Of operation Sprockets</p>		
<p>Of operation pulleys</p>		
<p>Electronic AC- DC Adapter - Power supply</p>		
<p>Electronic Engines</p>		
<p>Electronic Bluetooth and WIFI communications card</p>		



¿What role does each component of the System play?

Scanner: Uses to mark characters and letters in digital documents and printed images.

Rail of impression: The ink cartridges are moved horizontally through it. As the document is printed, its movement is continuous. Once finished, it returns on its original position on the side of the mechanism.

Pinions, pulleys and motors: Assembly of parts that allow and give the necessary strength for the process of feeding sheets and their output.

Communications card: Network adapter that allows the transfer of information and resources from one device to another. In our case, What we want to print.

Sensors IR: They play the role of activator of the internal mechanism, detecting by means of colour whether or not a sheet document exists.



Vacuum pump: It generates suction at intervals in a tire that releases the ink and, in turn, drives it towards the pipes to the head.

What you learned by exploring your electronic device?

Things won't always go out the first time. We learned about parts and tools we didn't know before and, in practice, we were able to use. When you try to find the why for something, you must have patience and perseverance. The mistakes we made are solved with mutual help, we share ideas and delegate tasks. We accelerated to disassemble and then lost track of rebuilding the printer, but with the previous work we managed to straighten out our steps following an order. We were creative providing ways to achieve our goal, and methodically choosing the most optimal. The complexity of this printer further motivated us to continue the challenge.

Photographic evidence



