Photon Robot: Developed Algorithms that Turns Light to Data that the Blind's Brain Can Process

Abed, Lama (School: Al- Najah Secondary School)

The purpose of this project is to create a new unique tool that will help the visually impaired to restore their sight partly or fully depending on the case.since till now science did not find any way to solve blindness because the nerve cells and system aren't curable if damaged we needed to find other ways that biological to solve the problem. The procedure was divided into two parts , hardware and software developing , first I read about sight and vision and watched a lecture about how to treat blindness to be more informed about the problems that need to be solved in this project. then i made a prototype for the glasses that are already invented and are still going through trial to cooperate that module with my project so it can support it. then i moved on working on the software part which is the actual focus in this project , i started learning about algorithms and techniques to build AI neural networks to put them into action in the prototype of the project. The data i got after finishing the project was first light translated to electrical signals in the hardware module then in the software module the shapes and the pictures inserted was translated into readable data and codes. which results in a good processor for light and pictures and visual data that can process that visual data into any shapes of data we want . At the end of this project we are one step closer to solve blindness because this is just the start of a new revolutionary solution for those who can't see using AI and MC and deep learning .