Use of Laser in Lenses Cutting (ULLC)

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After deep and continuous searching for months in the field of optical lenses' cutting machines, and after reaching Jordan's biggest universities, and contacting many specialists and professors in this field. We found out that the typical and present way of cutting optical lenses wastes too much water, electricity, money, and pollute the environment. The present technique of using "Water Jets" basically depends on a high speed motor rotating a hard rock near the lens, removing layer by layer until it is edged, and pumping out water at the same time on the lens, to prevent the lens from being broken or scratched. This typical way needs a machine costing from 30,000 to 120,000 US Dollars. As well as wasting 5 liters of water per one lens. It also needs a technician to keep an eye on the machine while it is working for approximately 7 minutes for every lens. Therefore we as a team searched for a new idea to improve this field, and make it blot free. So we came up with ULLC. ULLC uses CO2 laser instead of the high speed motor, and cut down the use of water and the pollution that is caused by the mixture of lenses' dust and water (rubbish), in a procedure that we will mention later in details in this research.

Awards Won: