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|  |  | |  |  |  | | --- | --- | --- | |  |  |  | |  | The sun has always posed a perfectly safe alternative source of power to all these polluting methods.  It not only produces no pollution, but it actually uses the greatest aspect of the environment to produce power--the sun.  For billions of years, plants and even tiny single-celled organisms have taken advantage of the ample bounty of the sun's rays to sustain themselves and provide all the energy they need.  The sun itself is literally a bursting ball of energy, so how can we not use it for all our energy needs?  Today, modern science has developed means of doing this.  The secret of photosynthesis in plants is mimicked by solar panels, which are used to convert the sun's light into usable energy.  Solar power requires no burning of fossil fuels, produces no harmful wastes, and poses no safety hazards.  In fact, the only aspect of solar power that takes from the environment (besides the obvious use of solar rays) is the materials needed to construct the solar panel itself.  The world's supply of fossil fuels is running out as you read, and soon there will be none left to feed our hungry power plants.  Solar power provides a timely alternative, needing no fossil fuels, and causing no harmful greenhouse effects.  So, why aren't solar panels already in widespread use?  Unfortunately, a solar power plant does not produce as much power per dollar as traditional power plants do.  As a result, they are less economical, and thus will not be built nearly as much as other power plants, especially in a capitalistic society like our own.  If solar power could be made more efficient, it would certainly provide a valuable and clean alternative power source .  The aim of our project is to do just that: to find a way to make solar power more efficient, and thus usable to nations around the globe.  There are several ways that we might improve upon today's current methods, we just need to find them.  If someone can find a way to make solar power an attractive option to our energy needs, the effect on the environment, on our world, would be incredible.  Day after day, greenhouse gasses are building up, produced by the harmful emissions from fossil fuel-burning power plants.  Nuclear wastes are being stored deep in the earth, and radioactive substances are being released into the air and water.  Plants and animals, and people, are dying as a result of these polluting power sources.  Solar power eliminates all these problems, providing a promising pathway to a better future, and working to heal a damaged environment.  In this project, we will be exploring two possibilities for a better solar power source.  The first is a parabolic dish.  Much the way a radar dish works in focusing radio transmissions into a single point, a solar dish would focus sunlight onto a single solar panel.  Using a concave parabolic mirror, all the sunlight striking the entire mirror is focused onto a single solar panel.  If it is possible to raise the power output of a panel by a significant amount through this method, this could provide a useful means of increasing the efficiency of solar power, meaning more power for less actual panel.  The second possibility is the use of a lens to focus light |  | |  |  | | | | |  | | | |
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