

Importance of Visualizations

Most research projects are very complex and difficult to picture with written or oral material alone. This is why visualizations are important in presenting research projects to an audience. Models and diagrams can greatly improve an individual's understanding of a relatively complex concept. In this case, a visualization will be constructed explaining a "temperature-compensating transistor" (tentative title). This is a transistor that will keep the device that uses it working properly when it is exposed to a significant temperature change. Basically, this new transistor is made up of two spheres connected to opposite ends of a voltage source with the spheres having opposite charges. This will create an electric field between the two spheres resulting in a closed circuit. Unlike a normal transistor, the distance will remain constant between the two spheres under significant temperature change. This will keep the magnitude of the electric field constant in the transistor allowing the device to remain stable. In the construction of this visualization, one must pay close attention to detail and realism. For example, the transistor changes shape under change of temperature. Therefore the scale and the mechanical physics must be taken into consideration. Also important is making the visualization attractive. In this case, materials like gold and quartz are used. Including visualizations with written or oral presentations enhances understanding by the audience.

Category: Visualization

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