Usage of Conductive Materials to Reduce Pressure Sensor Cost

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The focus of this project is to experiment with low-cost materials that can hold and transfer/disperse electric charges and covert their use primarily to that of a pressure sensor. In today's industry, piezoresistive flooring is extremely expensive and one panel houses a plethora of components and can make one panel cost hundreds of dollars, which explains their use by NASA or industrial plants. The plan would be to experiment with piezoresistive material like polyethylene film, or conductive paint. This experimentation can lead to more household uses of pressure sensors like motion detection, renewable energy, floors for senior care homes. I will be measuring how we can apply them to regular floor panels of different textures and measuring their conductivity and resistivity with a multimeter and seeing how much they can power.

Awards Won: