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### **Physics Bus: An Innovative Model for Public Engagement**

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The Physics Bus is about doing science for fun. It is an innovative model for science outreach whose mission is to awaken joy and excitement in physics for all ages and walks of life – especially those underserved by science enrichment. It is a mobile exhibition of upcycled appliances–reimagined by kids–that showcase captivating physics phenomena. Inside our spaceship-themed school bus, visitors will find: a microwave ionized-gas disco-party, fog rings that shoot from a wheelbarrow tire, a tv whose electron beam is controlled by a toy keyboard, and over 20 other themed exhibits. The Physics Bus serves a wide range of public in diverse locations from local neighborhoods, urban parks and rural schools, to cross-country destinations. Its approachable, friendly and relaxed environment allows for self-paced and self-directed interactions, providing a positive and engaging experience with science. We believe that this environment enriches lives and inspires people. In this presentation we will talk about the nuts and bolts that make this model work, how the project got started, and the resources that keep it going. We will talk about the advantages of being a grassroots and community-based organization, and how programs like this can best interface with universities. We will explain the benefits of focusing on direct interactions and why our model avoids “teaching” physics content with words. Situating our approach within a body of research on the value of informal science we will discuss our success in capturing and engaging our audience. By the end of this presentation we hope to broaden your perception of what makes a successful outreach program and encourage you to value and support alternative outreach models such as this one.

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