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Layman friendly spectroscopy[1] STIPO SENTIC, SHARON SESSIONS, New Mexico Tech — Affordable consumer grade spectroscopes (e.g. SCiO, Qualcomm Tricorder XPRIZE) are becoming more available to the general public. We introduce the concepts of spectroscopy to the public and K12 students and motivate them to delve deeper into spectroscopy in a dramatic participatory presentation and play. We use diffraction gratings, lasers, and light sources of different spectral properties to provide a direct experience of spectroscopy techniques. Finally, we invite the audience to build their own spectroscope—utilizing the APS SpectraSnapp cell phone application—and study light sources surrounding them in everyday life. We recontextualize the stigma that science is hard (e.g. Math, Science Popular Until Students Realize Theyre Hard, The Wall Street Journal) by presenting the material in such a way that it demonstrates the scientific method, and aiming to make failure an impersonal scientific tool—rather than a measure of ones ability, which is often a reason for shying away from science. We will present lessons we have learned in doing our outreach to audiences of different ages.

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