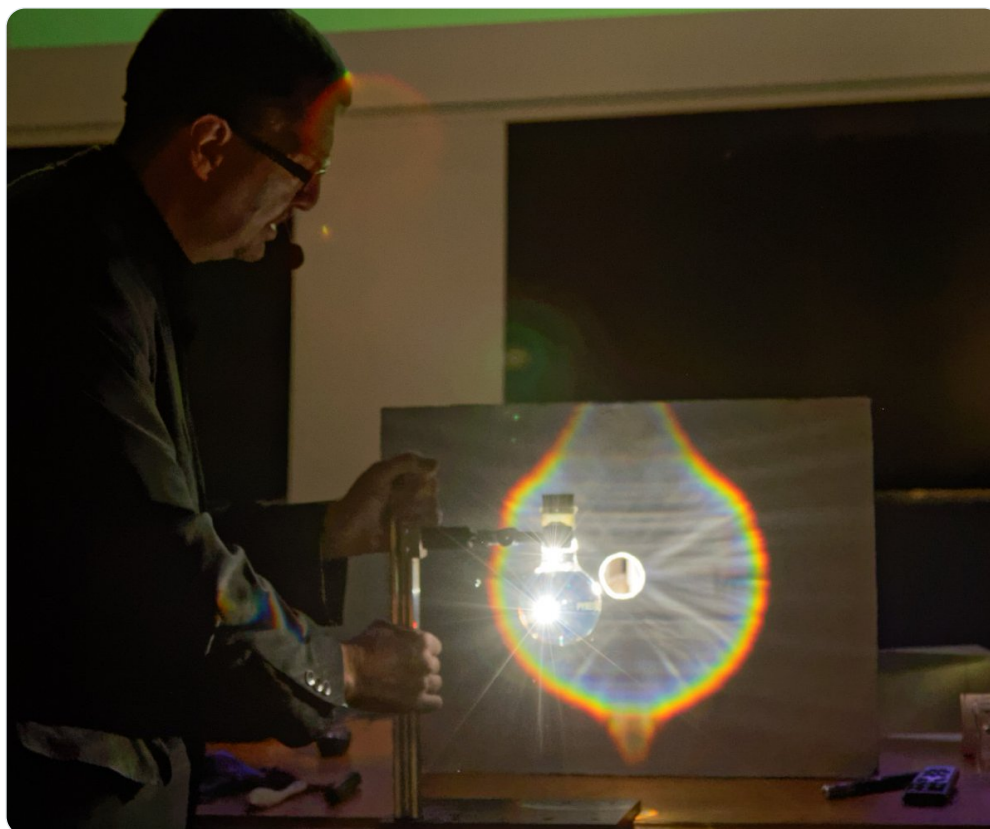




John Dudley @johnmdudley

Dec 22, 2018 · 11 tweets · [johnmdudley/status/1076402452436566017](https://twitter.com/johnmdudley/status/1076402452436566017)

Lecture demonstrations for a Saturday morning. First - a rainbow. Very simple with a projector, card and a flask. Methyl Cinnamate is better than water for doing this as it has a higher refractive index.



And complementing a rainbow is the classic dispersion of white light in a prism demo - colors seem to have saturated on the card but not on the reflection on the table.



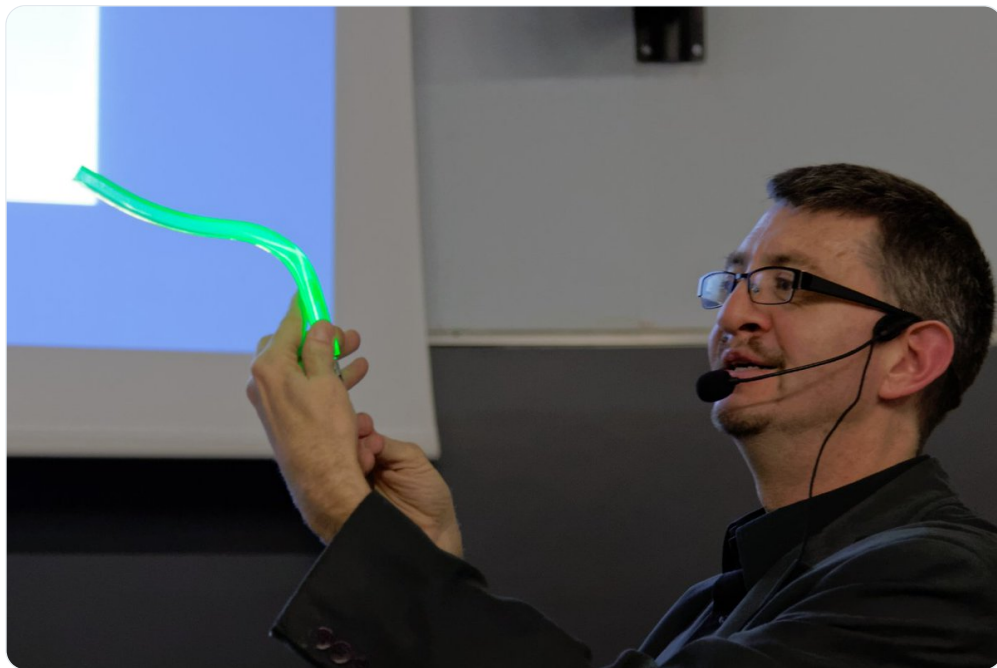
Speaking of colour, very simple yet amazingly effective is to use a hand-held RGB colour mixer



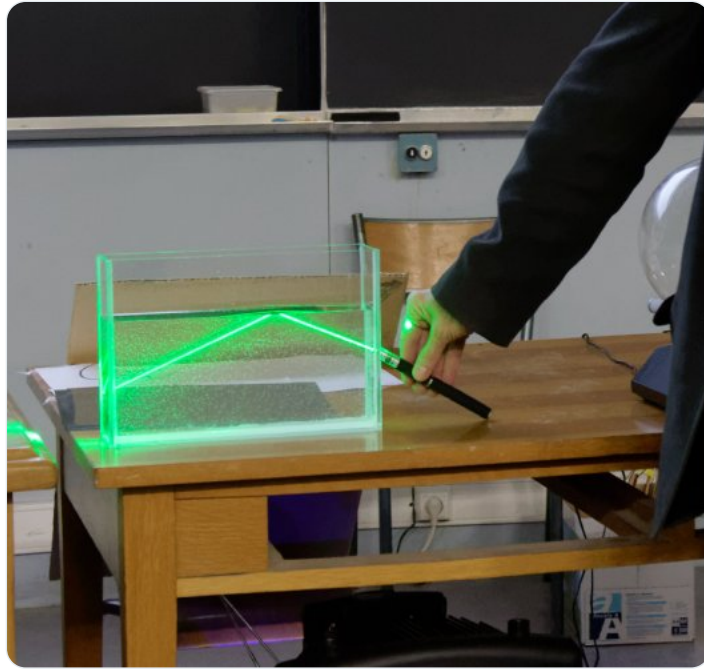
You can light a Neon-lamp holding it close to a Plasma Ball ... Illustrates all sorts of physics!



Hand-held total internal reflection allows you to speak about telecommunications and endoscopy and more in a lecture



TIR also can be shown using the classic aquarium demo of course



Harry Potter does physics! Immersing an orange LED in Liquid Nitrogen changes its emission frequency so that it takes on an evil Green hue. From Expelliarmus to Avada Kedavra using the laws of physics! [#thewandchoosethephysicist](#)



More Harry Potter physics. Levicorpus with a levitron!



And projecting fringes from a Michelson allows you to talk about gravitational waves.



And thanks to @mzelcoco for the photos!

You can see the original orange color of the LED reflected in a Van de Graaf while another student is being charged up at the same time!



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