Fremdprojekte

Fremdprojekte sind Workshops der anderen Fablabs, die wir mit jeweils 15 Teilnehmern durchführen sollen. Uns wurden die folgenden Projekte zugeteilt

Zu Freiwilligen siehe auch die schon etwas ältere Freiwilligen-Liste von Mitte 2017

Droposcope

Altersgruppe Young Minds, 10-14 Jahre

http://phablabs.eu/workshop/droposcope



A Droposcope is a simple microscope which uses a drop of water as a lens. The image of organisms inside a water drop is projected on a screen using a laser.

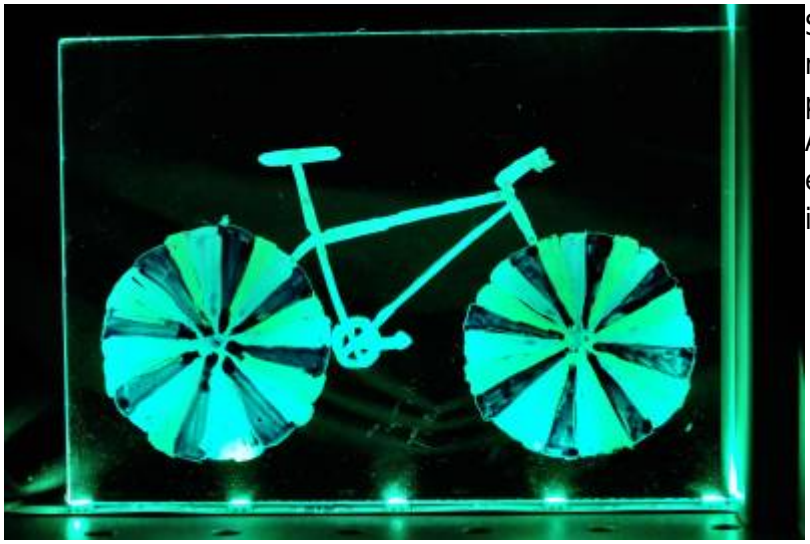
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Lightboard

Altersgruppe Young Minds, 10-14 Jahre

http://phablabs.eu/workshop/light-board

Photonics principle: Understanding theoretical points such as ‘total internal reflection’, ‘colour mixing’ and the process of ‘fluorescence’.



Short description: The participants can make their own custom-made clear polymer plate with a hidden message. Applying ink patterns makes the light escape from the plate and displays an image.

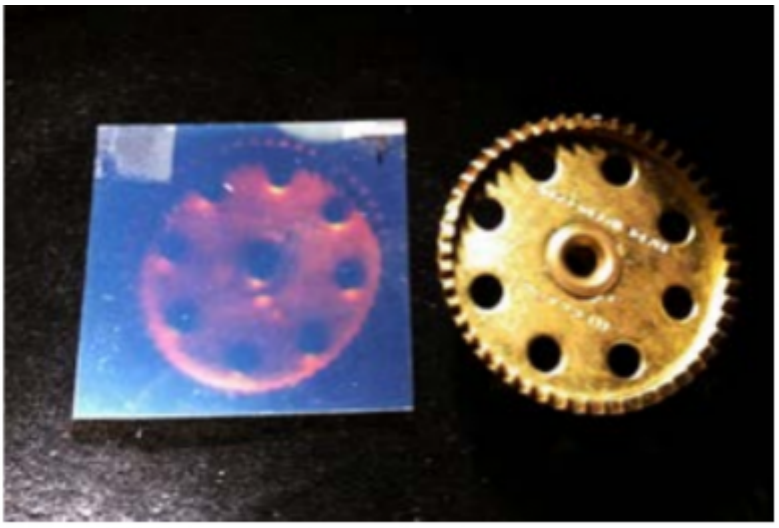
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Holography

Altersgruppe Students, 15-18 Jahre

http://phablabs.eu/workshop/holograms-and-electromagnetic-spectrum

Photonics principle: Reflection, refraction, diffraction and interference



Short description: Participants will make a hologram using a laser, and create a ‘Scratch’ hologram manually, to understand the light theory behind holography and the applications of 3D technologies.

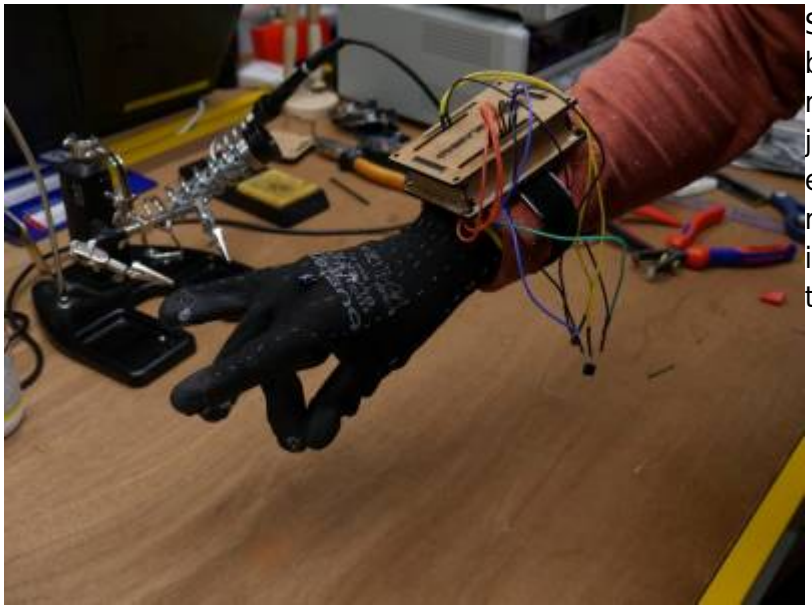
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IRglove

Altersgruppe Students, 15-18 Jahre

http://phablabs.eu/workshop/ir-glove

Photonics principle: This Photonics Workshop starts with the principle of wavelengths in infrared used to send a signal with e.g. your remote control. Most remote controls make use of near infrared light with wavelengths between 800 and 950 nm.



Short description: The participants will build an IRglove that will serve as a remote control for a certain device. By joining two fingertips, a signal will be emitted by the IR emitter to a TV or a radio. A controller and a battery integrated in a bracelet are attached to the glove.

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Photonics Piano

Altersgruppe Young professionals, 18+ Jahre

http://phablabs.eu/workshop/photonics-piano

Photonics principle: In this workshop the basic principles of light are explained: the speed of light, the refractive index, reflection and refraction, total internal reflection.



Short description: Optical fibers and music: the Photonics Harp. Each note in the harp will have a different coloured LED connected and aligned to a fibre. When pressing down a fibre, the fibre gets misaligned and the emitted light cannot be coupled anymore in the fibres. The light switching process is coupled with sound. A note will be produced once the corresponding illuminated fibre is switched off.

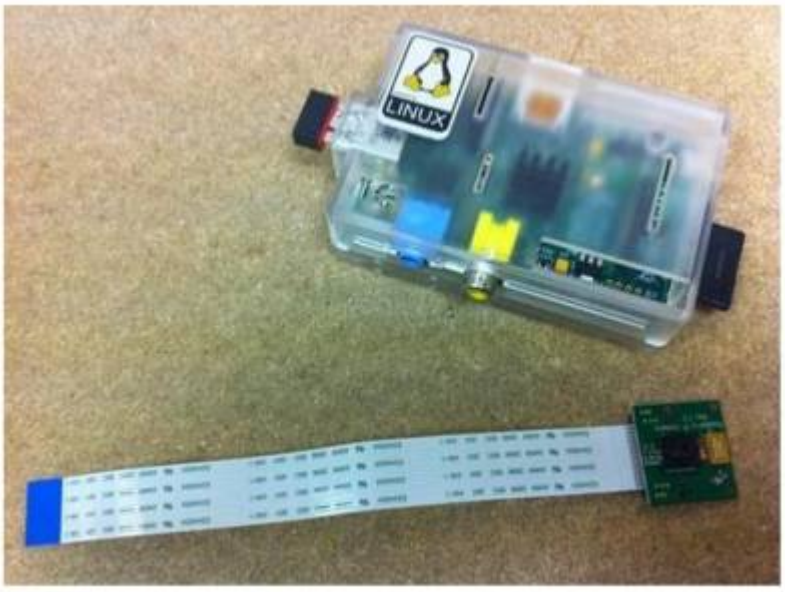
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Spectrometric Pi-Camera

Altersgruppe Young professionals, 18+ Jahre

http://phablabs.eu/workshop/advanced-spectrometer

Photonics principle: Spectrometry



Short description: Raspberry pi technology provides us with low cost and form factor design while still packing the computational punch to do some complex tasks. This makes it an ideal platform to underpin a more advanced spectrometer that has a dedicated camera and processing system. Ideal to work out a spectrometer.

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