Beamer Serial

Our current beamer has an RS232 port, which can make it easier to control.



Without it, we need to power on the beamer, wait for the lamp to turn on, and then click on the source button, in hopes that HDMI is already plugged in. There is no guarantee that it'll stay on HDMI, unlike the commands you can send via serial.

Hardware

We have a Sparkfun RS232 Shifter which can be used to shift the voltage (12V) down to a voltage usable by an ESP8266 (3.3V) or an Atmega328 (e.g. Arduino Uno/Nano) (5V).

The goal is to hook up an ESP8266 (Wemos D1 mini) to it and make it "smart", as to make use of the beamer less annoying.



You can **use the Wemos D1 mini**, as well as many other microcontroller boards **as Serial Adapters**!
All you need to do is **upload an empty Arduino sketch to it**, and **switch the Serial wires (TX/RX) around**.

This is because many microcontroller boards incorporate serial adapters to communicate with the microcontroller itself, you can thus abuse it by making the microcontroller do nothing, and use the serial adapter for another purpose.

Software

While you can probably send the indiviudal hexademical bytes, it is much easier to simply copy-paste the text (e.g. `* 0 IR 001`) into a `Serial.println()` statement.

Note that you do not copy the `\r`, but instead use `Serial.println()` to achieve the same effect.



RS232 spreadsheet

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