

# AoE: Audio over Ethernet

It's easy to modify CAT3 ethernet couplers to be used for ghetto audio signal distribution over pre-

existing ethernet cables 😊 Probably not for complete audiophiles, but for me it works very well. Just crack-open the CAT3 coupler and you'll find that small cheap panel-mount 3.5mm stereo jack will fit right in. Then you just need to find and solder proper wires:

Color	Usage
blue-white	left channel (mono)
brown-white	right channel
blue	GND
brown	
rest	100M Ethernet

This should also protect the audio equipment against accidental mixing with PoE as it has blue and brown wires shorted together which will short PoE supply and leave audio device intact.

## Other ideas

### USB

You can use twisted&shielded cables to improve range of your USB cables. As USB uses differential signaling, but typical USB cables are not twisted (just shielded), i believe that using twisted cables can have positive impact on maximal cable length. You should try to minimize lenght of original USB cable (it's optimal to connect USB connector directly to RJ45 jack...). I can suggest following wiring which is

compatible with PoE and also makes sense in terms of colors 😊

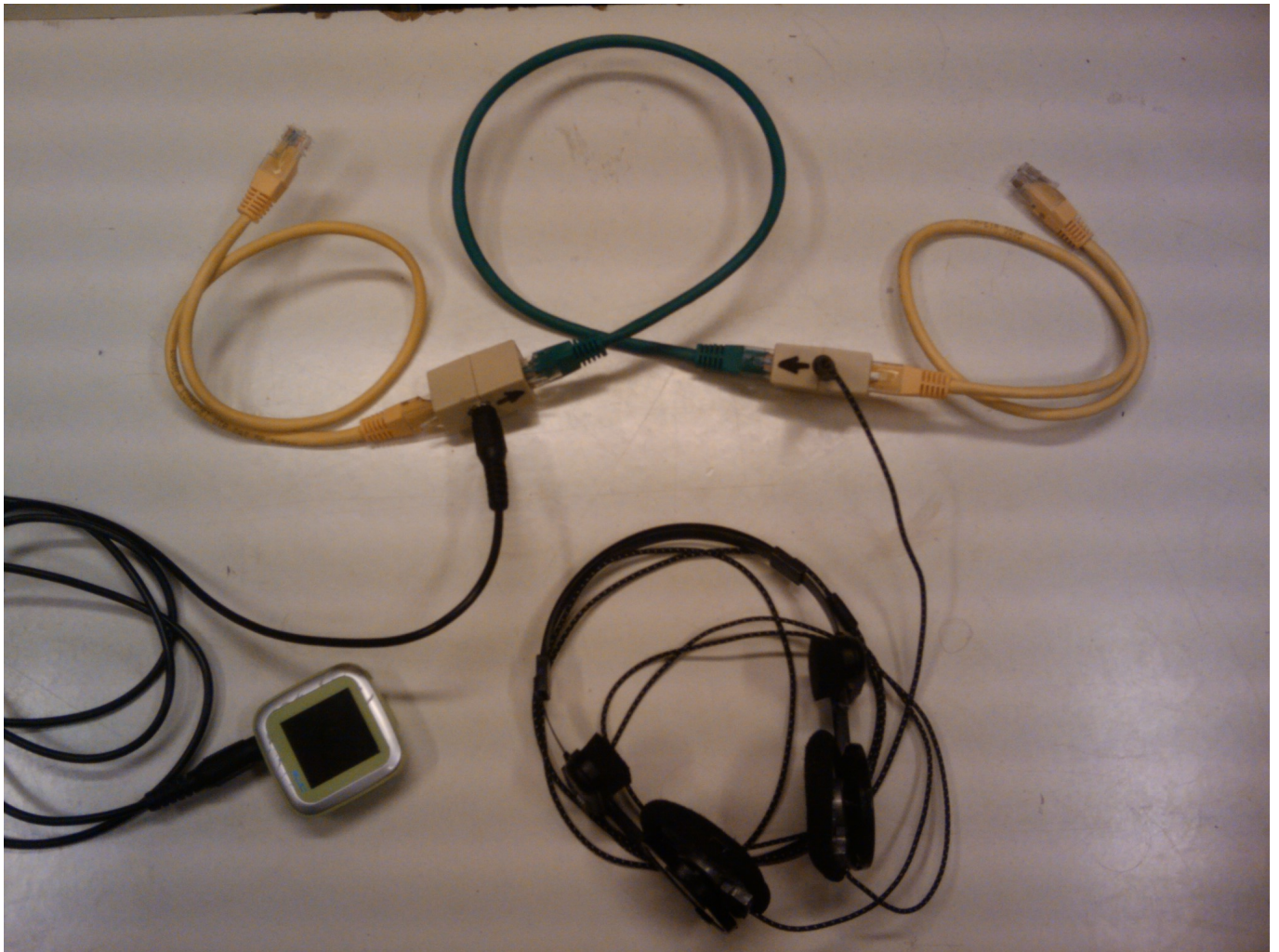
UTP (Ethernet) color	USB color	USB pin
blue	red	Power +5V
blue-white		
brown	black	Power GND
brown-white		
green	green	D+
green-white	white	D-
orange	Not used (possibly D+ and D- for one more USB device)	
orange-white		
shield	shield	

### VGA Video

It's also possible to use shielded ethernet cables for video signal:

- <http://dx.com/p/vga-male-to-rj45-female-adapter-for-cat-5-cat-6-black-153617>

## Photos







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