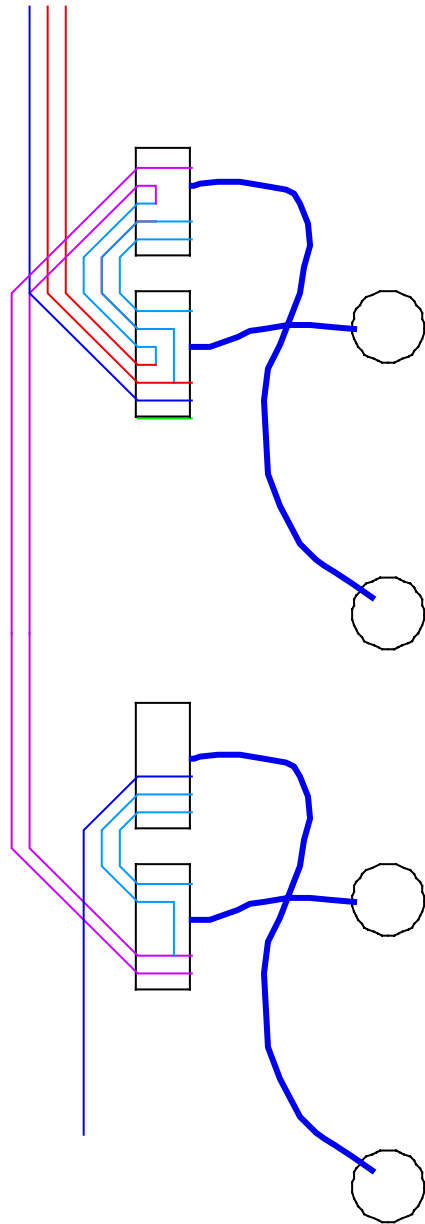


Memo on string and DFL wiring

AK, October 27, 2003

Drawings on string architecture and suggestions on DFL wiring.

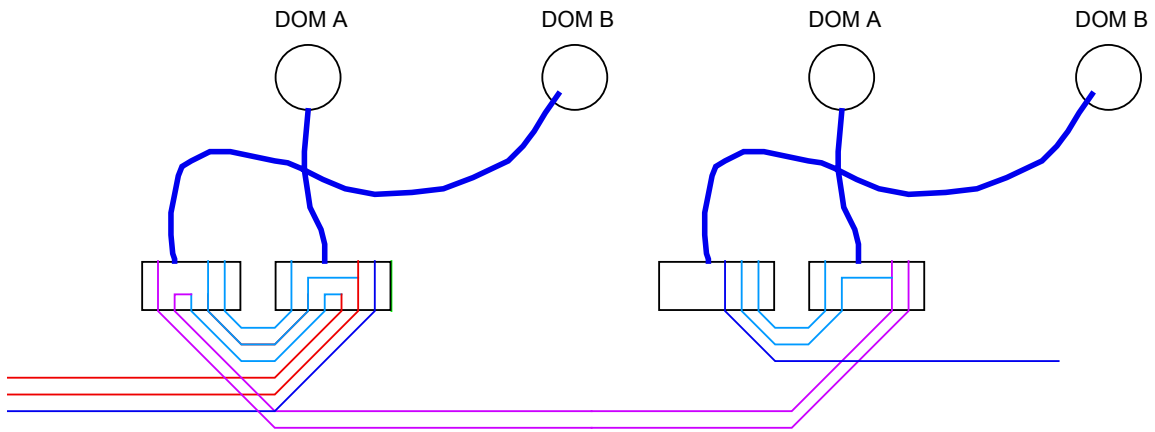
Schematic diagram of string cable:



Each line corresponds to a twisted pair. Colors between breakouts correspond to a specific quad. The rectangular boxes correspond to a 6-pin DOM connector.

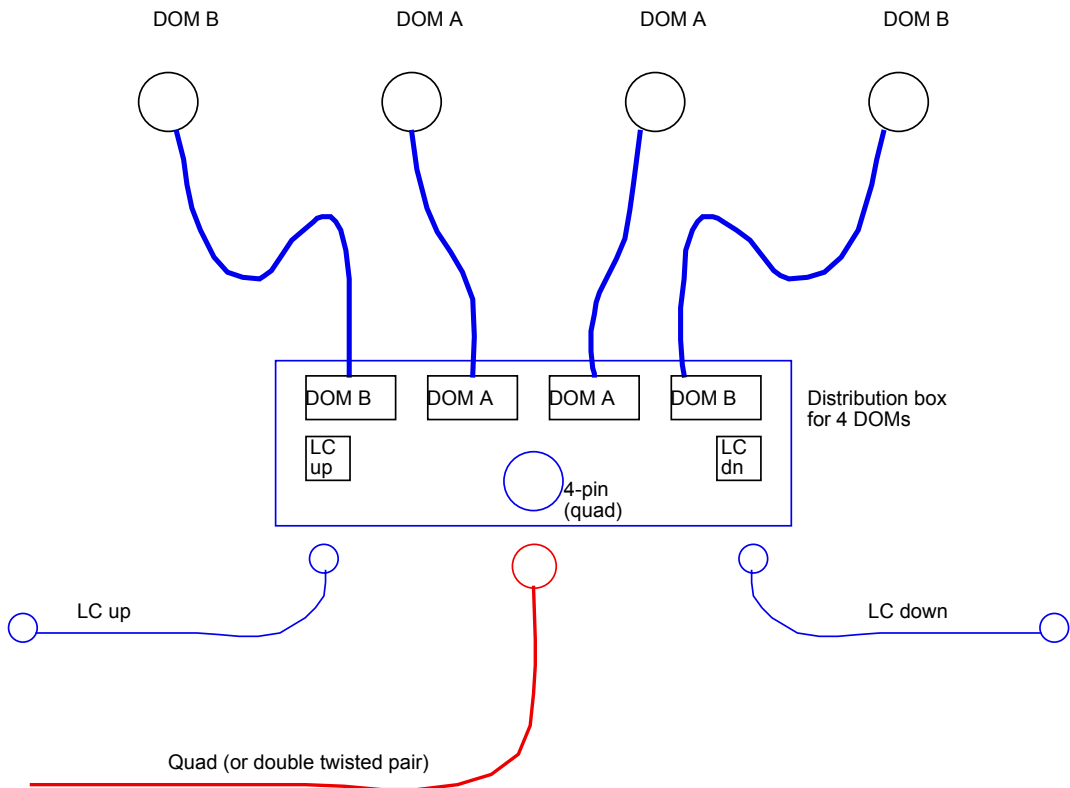
Possible structure the cabling in the dark room similar to real case.

Schematics on real string:

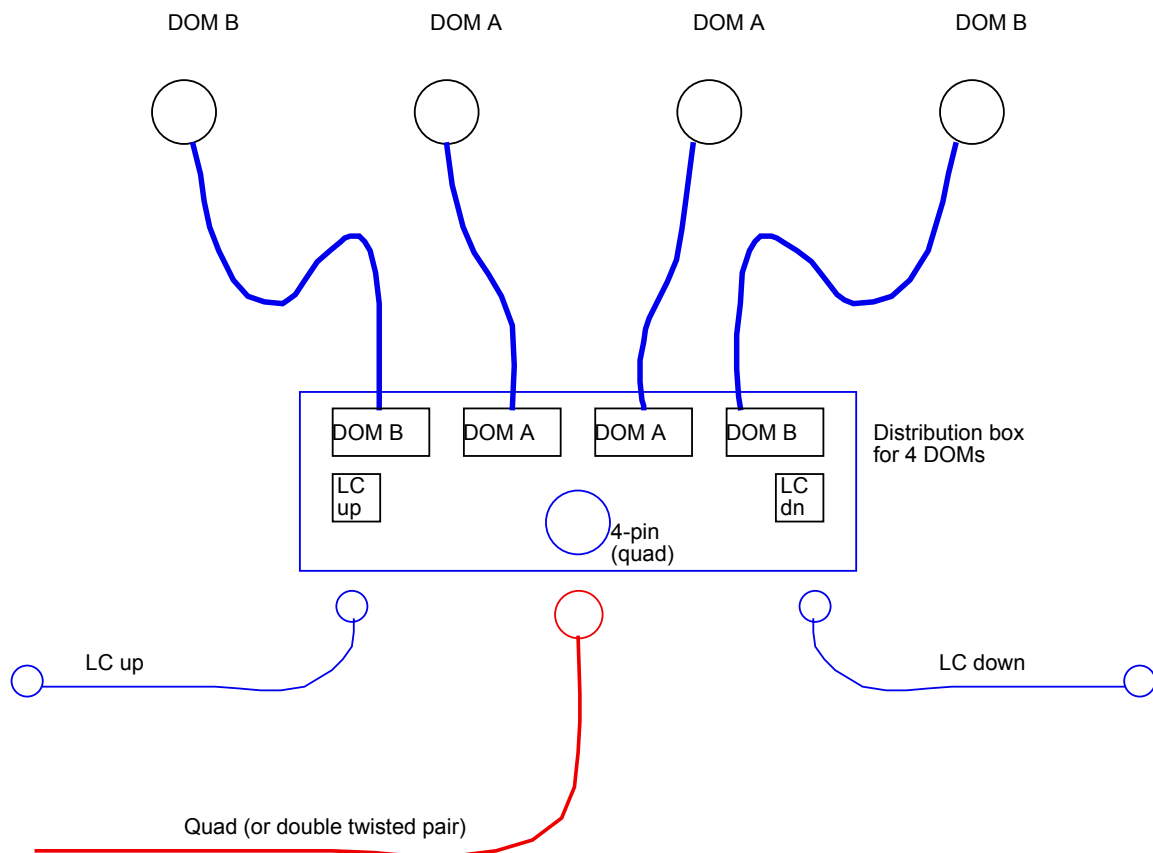


Each line represents a twisted pair.
Each color is associated with a quad.

Practical structure in the darkroom:



Distribution box for DOMs in darkroom using quads:



Distribution box:

- 6 pin receiving sockets for the 6 pin DOM connectors: 4
- 2 pin sockets for signal twisted pair: 2
- 2 pin sockets for custom made LC cables: 2

Cables:

- One twisted quad cable for signal and power to DOMs
- One LC cable with 2 pin LC connectors at both ends

The diagram illustrates a distribution box for 4 DOMs. The box contains four ports labeled DOM B, DOM A, DOM A, and DOM B. Below these ports are two circular ports labeled LC up and LC dn. The box is connected to four external DOMs (two labeled DOM B and two labeled DOM A) via blue lines. The LC up and LC dn ports are connected to a twisted pair line (red) and a twisted pair line (blue) respectively. The twisted pair lines are labeled LC up and LC down. The twisted pair lines are connected to a twisted pair line (red) and a twisted pair line (blue) respectively.

6 pin receiving sockets for the 6 pin DOM connectors: 4

2 pin sockets for custom made LC cables: 2

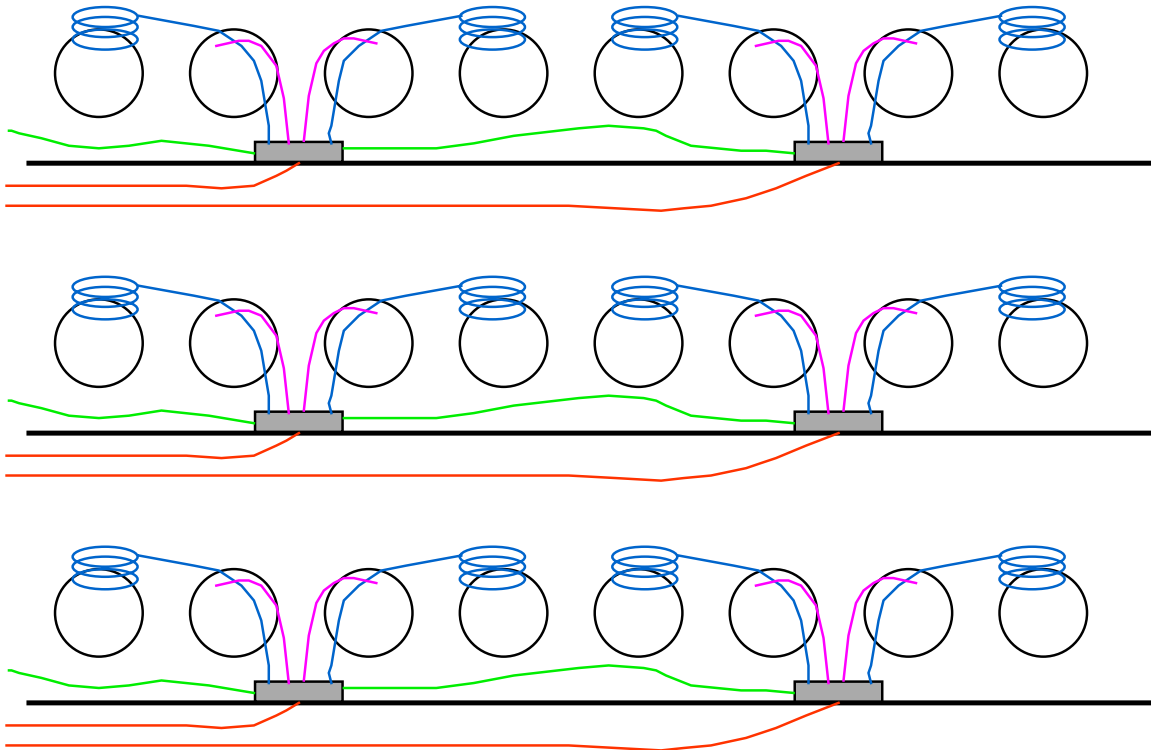
- One twisted quad cable for signal and power to DOMs
- One LC cable with 2 pin LC connectors at both ends

Parts (UW only):

Distribution boxes: 75

LC twisted pairs: 75

Twisted quads: 75 (or 150 twisted pairs)



Estimated number of parts in collaboration needed in 2004:

Distribution boxes: 200 (including 800 6-pin connector sockets and other)

LC twisted pairs, several meters: 200 pieces

Twisted quads, 20 to 40m: 200 pieces (or 400 twisted pairs)

Suggestion: Prepare to buy sufficient material for 20 to 40 boxes plus wiring immediately.