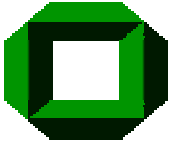
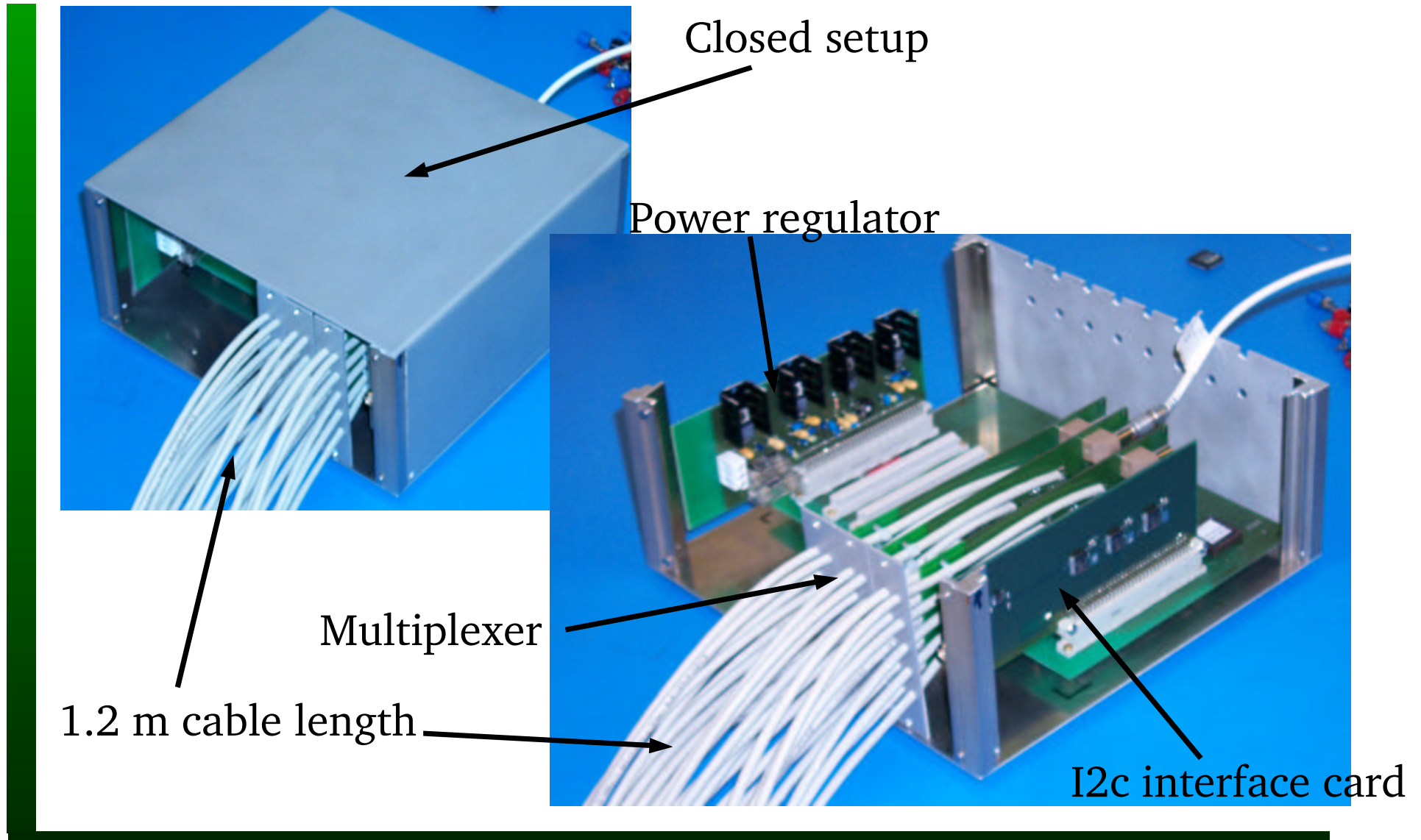


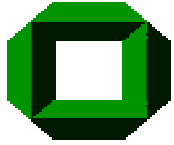
LED-Array devices and Control card

Guido Dirkes
for the Karlsruhe CMS Group



Final multiplexer device appearance





Mux Production Status



PCBs all in house, all components mounted
(cables in progress)

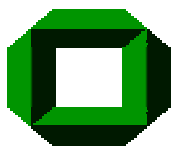
500m cables with 400 connectors in work
(40 multiplexer cards | 20 already done)

Electrical tests in progress
(only two malfunctional motherboards so far)

Mechanical housing designed
(Series in workshop, finished till mid August)

Software integration next point to do
(with help from Valery Zhukov)

Delivery in Sept. CMS and Okt. Tracker week planed



Prices



Part	Estimate	Real 2002	Complete Device
Motherboard	180	250	250 CHF
I2c Interface Card	65	80	80 CHF
Power Regulator Card	75	90	90 CHF
Multiplexer Card	210	350	1050 CHF
			1470 CHF
		Incl. Tax	1705 CHF

Increase caused by

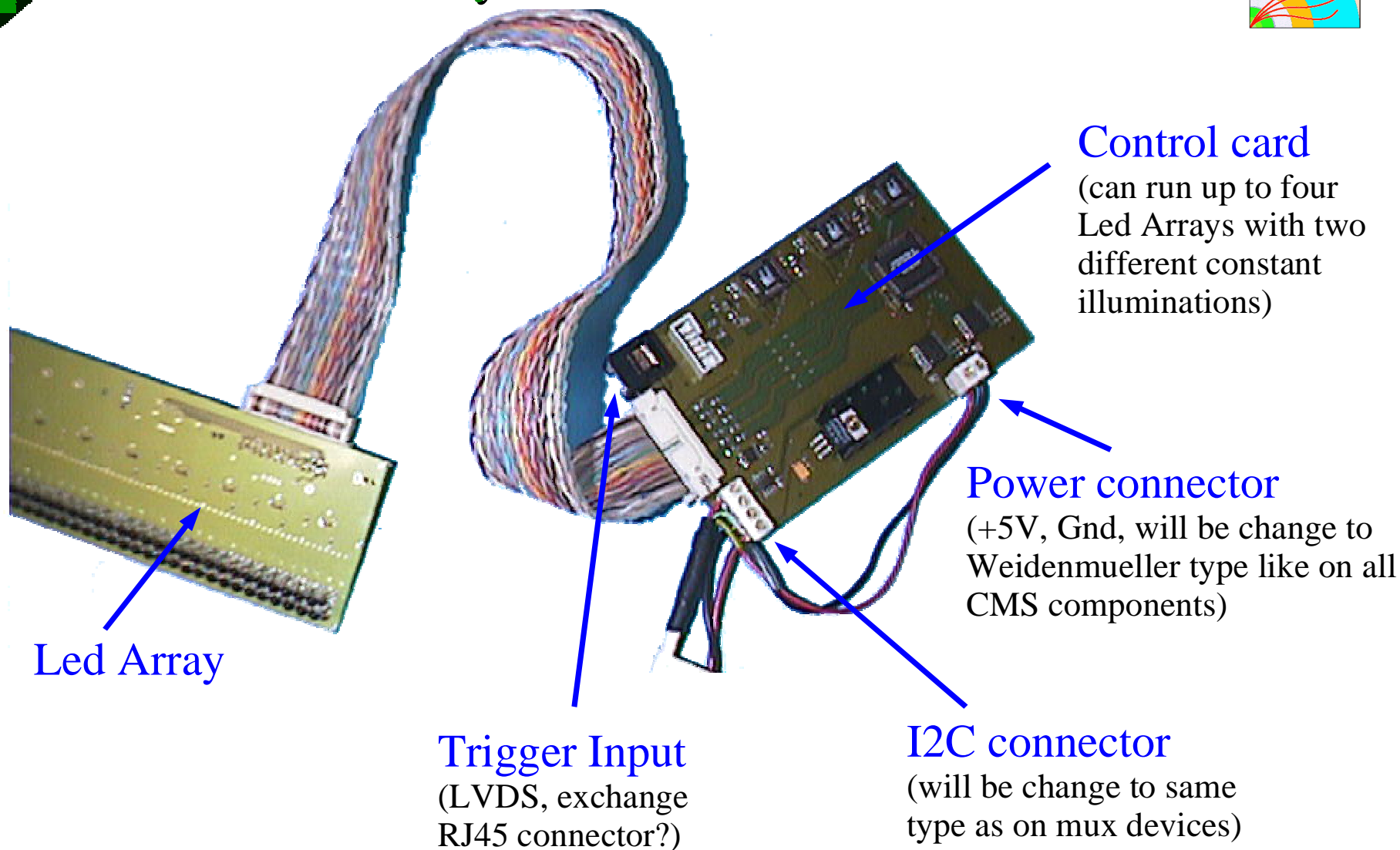
PCBs (20% more expensive than expected)

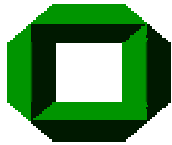
Lemo connectors and cable + work time

Soldering costs for motherboard



Led Array for CMS like readout





Schedule of Led Array production



Apply changes to layout (connectors)
done till mid August

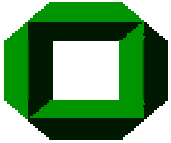
Software adaption
with help from Valery Zhukov till end August

Order PCBs
takes two weeks (end August)

Mounting and final testing (one devices !)
finished till september CMS week

Start of series expected for mid September 02
production rate approximatly one set per week

First delivery during Oktober Tracker week



Prices of LED Array system



Part	Estimate	Complete Device
Led Array	125 EUR	250 EUR
Control Card	150 EUR	150 EUR
Cables (I2c link)	22 EUR	22 EUR
		422 EUR
	Incl. Tax	490 EUR

Rough Estimate with main points

PCBs (50, 75 EUR)

Componets (logic chips, DACs, I2C interface, leds)

Lemo connectors and cable

Cost of workshop