

APPENDIX A

The Original 14 Stage Marx

Archive 1st Prototype for Future Reference

Photo: Front View

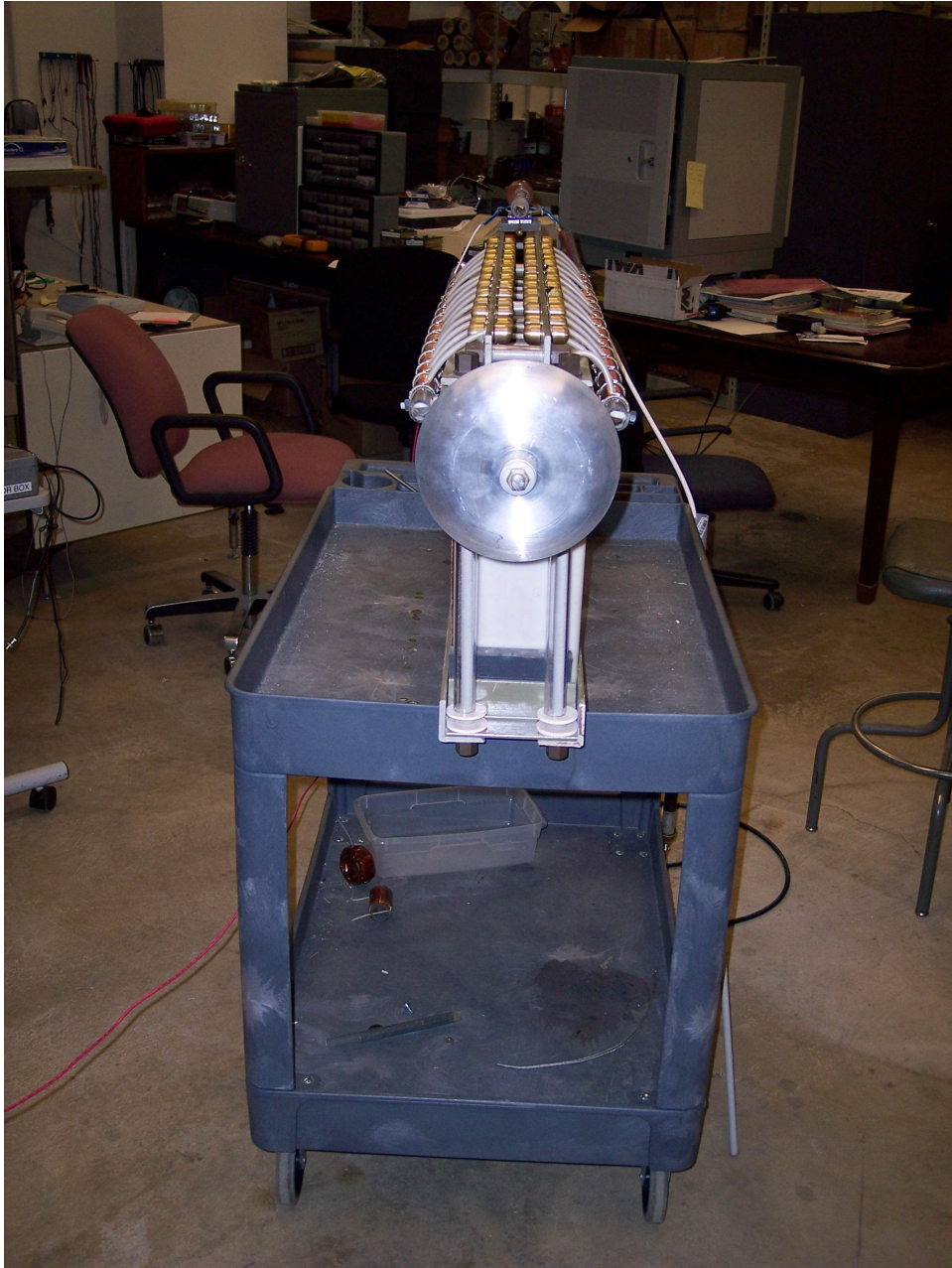
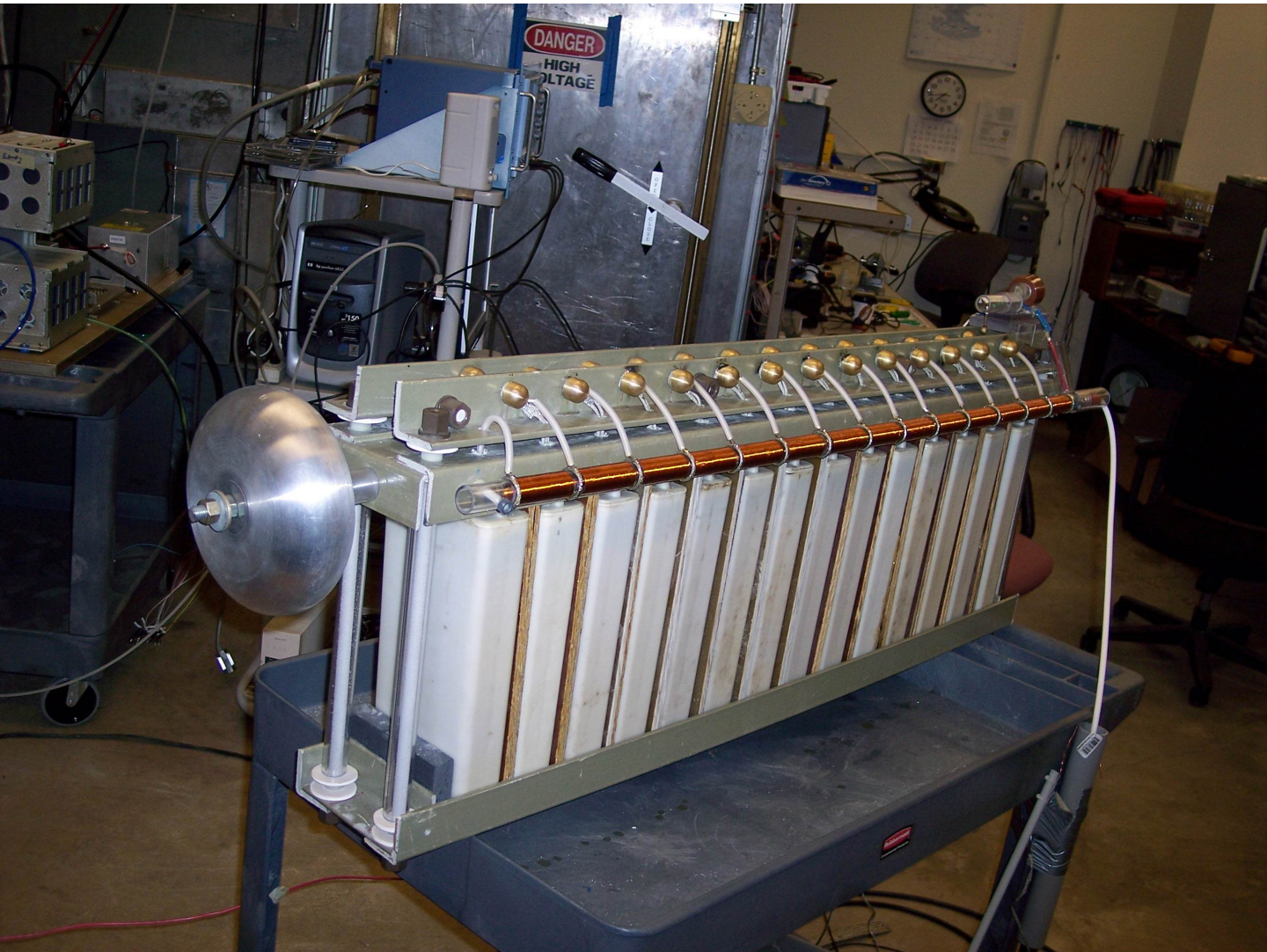


Photo: Side View (HV charging rail)



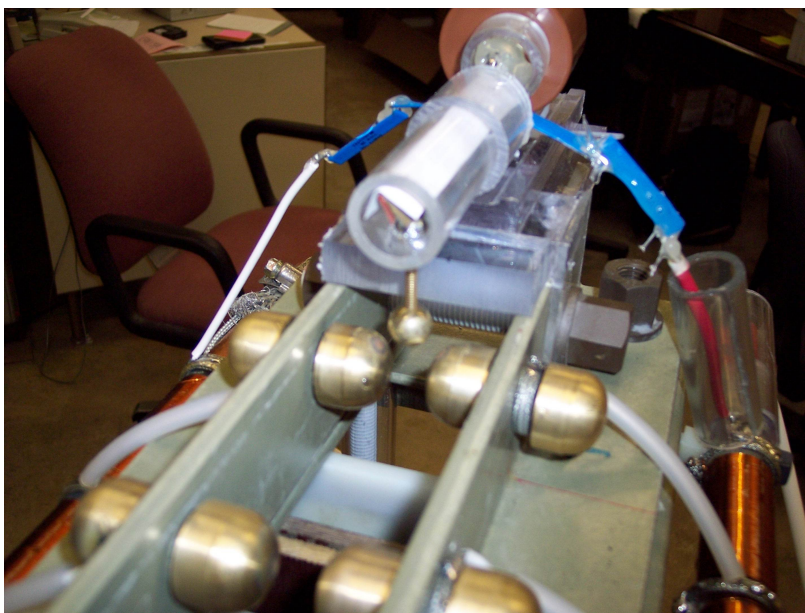
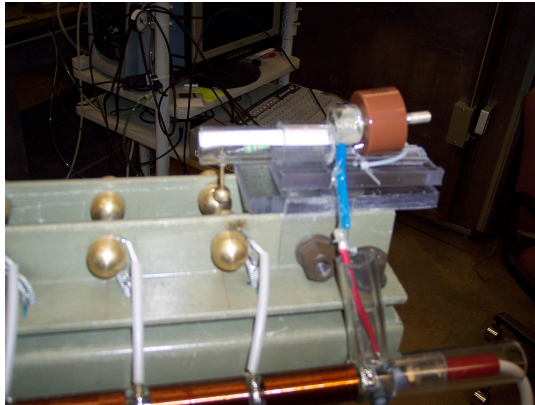
Charging resistor

Photo: Side View (GND charging rail)



Photo: Triggered SG

SG $\sim 0.36''$



14 Stage Marx =>> some basic parameters :

> charging approximate parallel capacitance ie $14 \times 0.32\mu\text{F} = 4.5\mu\text{F}$

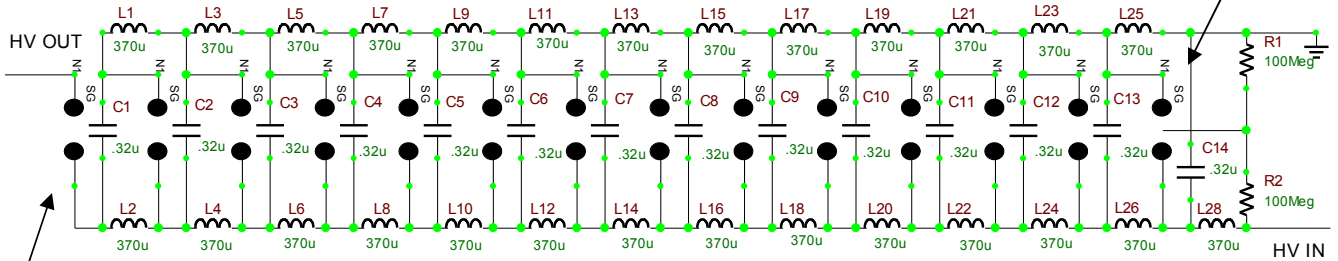
> erected capacitance $0.32\mu / 14 = 0.023\mu$

Notes:

Has 14 sparkgaps (SG) including the peaking gap

Has 13 charging inductors on the ground rail

Triggered SG



Has 14 charging inductors on the HV IN charging rail

370 uH ea.

Output peaking SG

Has 14 capacitors

WARNING LETHAL ENERGY & VOLTAGE!!!

Vin(Kv)	KJoules	Erected Voltage(KV)
25	1.4	350
28	1.75	392
30	2	420
35	2.75	490
40	3.6	560
50	5.6	700