

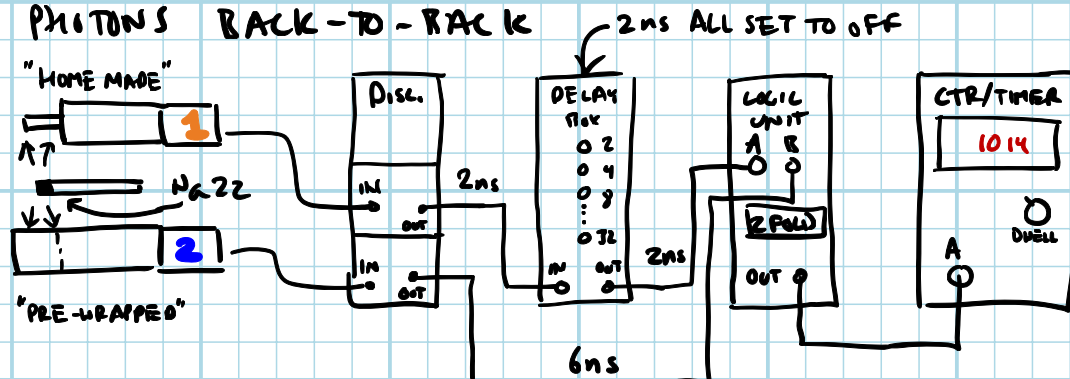
#1

TIMING & COUNTING

25 JULY 2020

(1080)

FOR DELAY CURVE, ADDED CABLE DELAY BOX
WITH SWITCHABLE DELAYS TO DISCRIMINATOR OUTPUT
FROM ONE DETECTOR AND FIXED CABLE LENGTH OF
6ns TO THE OTHER DETECTOR DISC. OUT. FED BOTH
TO LOGIC UNIT, 2-FOLD COINCIDENCE, & Na-22 ANNIHILATION
PHOTONS BACK-TO-BACK



SET TO
1s
(101)
PRESET
INTERVAL
TIME BASE
= 0.01s

DELAY 1 REL TO 2

DELAY (ns)	CTS/1s
0	1050
4	1047
8	1037
12	736
16	124
20	25
24	6
28	5
32	3
36	8
40	4

DELAY 2 REL. TO 1

DELAY (ns)	CTS/1s
4	693
8	191
12	36
16	8
20	5
24	6
28	3
32	6
36	5
40	6

PULSE WIDTHS ARE
BOTH 10 ± 2 ns

SINGLES RATES

1: 10,000 Hz

2: 18,000 Hz

#2 TIMING/COUNTING CONT.

DISCRIMINATOR CURVE

(OPTIONAL)

SAME SETUP AS BEFORE, EXCEPT WE VARY THE THRESHOLD ON ONE DISCRIMINATOR AND MEASURE THE COUNT RATES OF ONE DETECTOR AS WELL AS 2-FOLD COINCIDENCE WITH THE OTHER DETECTOR

<u>THRESHOLD (mV)</u>	<u>SINGLES/sec.</u>	<u>COINC./sec</u>
30	33635	1207
37	31467	1180
45	29210	1146
55	27429	1014
66	25671	955
83	23029	817
100	20279	676
124	16645	532
150	12015	311
186	8317	106
226	6775	44
278	5797	36
340	4758	31
423	3436	16
513	1270	9
625	309	2
771	42	0