assumption
System
Counter
restart
from each
state

Counter < 60 sec

g_1, r_2, r_3, r_4

Counter < 5 sec

y_1, r_2, r_3, r_4

Counter < 60 sec

r_1, g_2, r_3, r_4

Counter < 5 sec

r_1, y_2, r_3, r_4

Counter < 60 sec

r_1, r_2, g_3, r_4

Counter < 5 sec

r_1, r_2, y_3, r_4

Counter < 60 sec

r_1, r_2, r_3, g_4

Counter < 5 sec

r_1, r_2, r_3, y_4

y-axis labels (bottom to top): g_1, y_1, r_1, g_2, y_2, r_2, g_3, y_3, r_3, g_4, y_4, r_4

60 sec

repeat
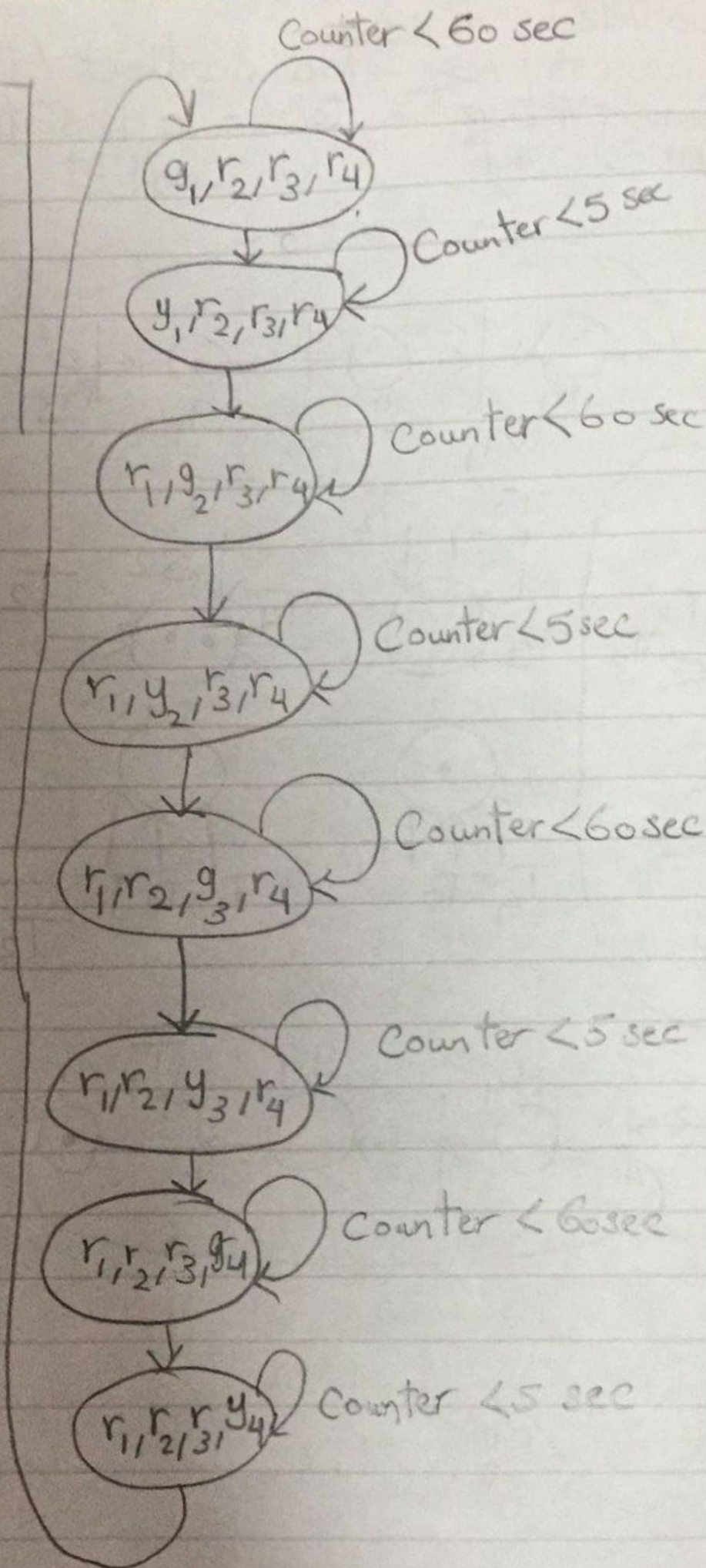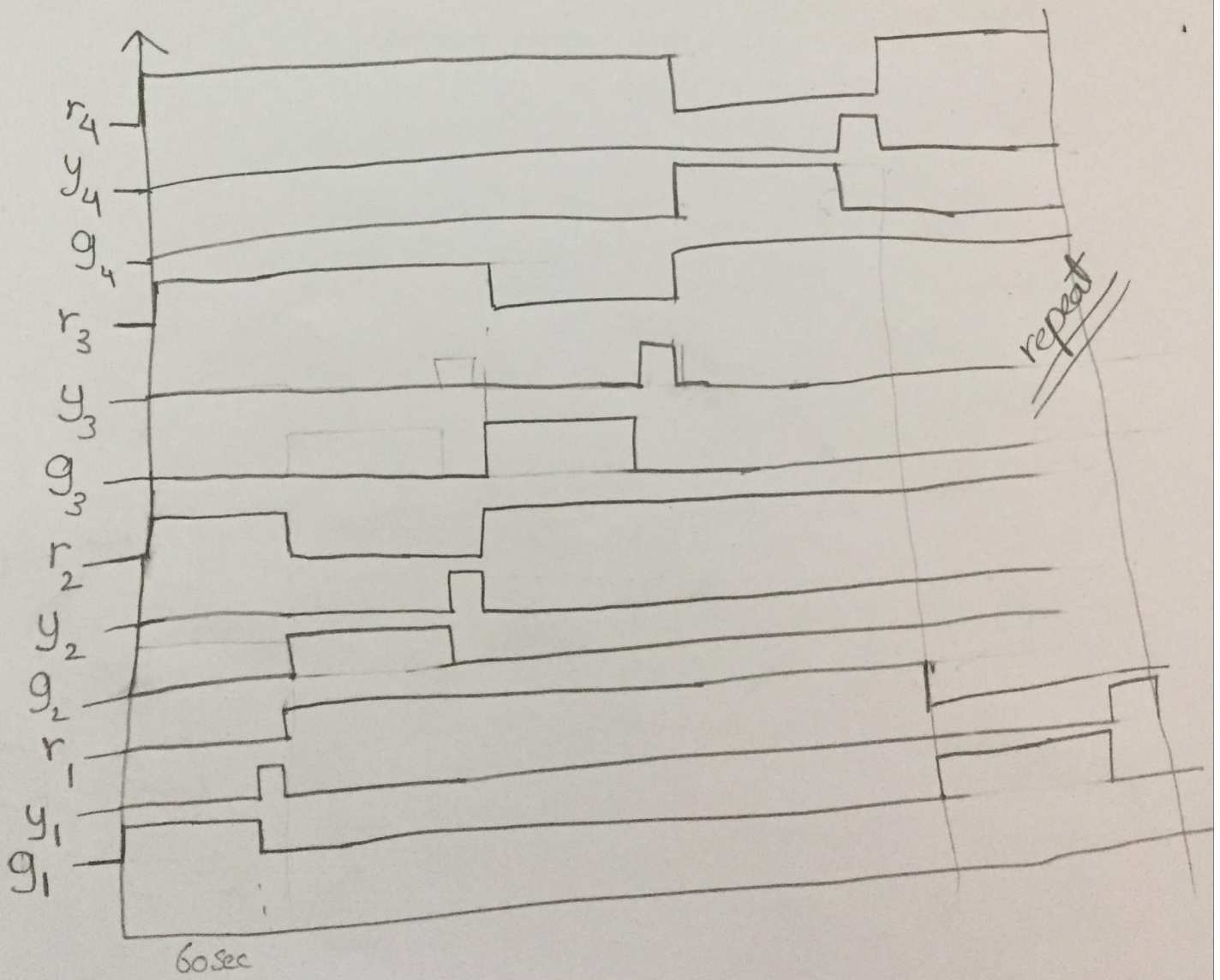
bounded   K=3   No deadlock / terminal
liveness   ✓   token = 10 in states and 7 in
Not Conservative   others
     presistant   No Conflict
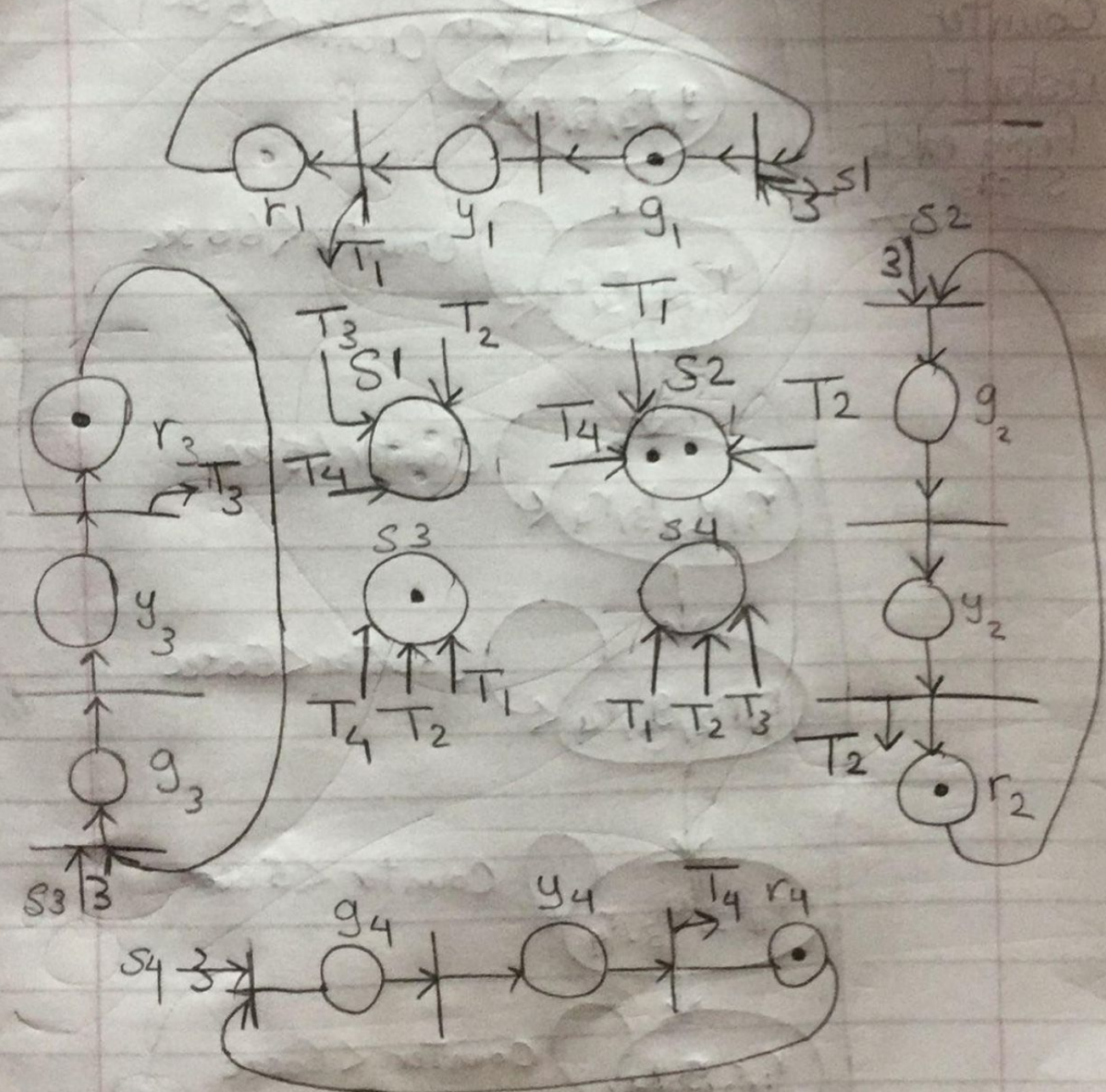
$$r_1, y_1, g_1, r_2, y_2, g_2, r_3, y_3, g_3, r_4, y_4, g_4, s_1, s_2, s_3, s_4$$

$\downarrow g_1$

$$0,0,1,1,0,0,1,0,0,1,0,0,0,2,1,0$$

$\downarrow y_1$

$$0,1,0,1,0,0,1,0,0,1,0,0,0,2,1,0$$

$\downarrow r_1$

$$1,0,0,1,0,0,1,0,0,1,0,0,0,3,2,1$$

$\downarrow g_2$

$$1,0,0,0,0,1,1,0,0,1,0,0,0,0,2,1$$

$\downarrow y_2$

$$1,0,0,0,1,0,1,0,0,1,0,0,0,0,2,1$$

$\downarrow r_2$

$$1,0,0,1,0,0,1,0,0,1,0,0,1,0,3,2$$

$\downarrow g_3$

$$1,0,0,1,0,0,0,0,1,1,0,0,1,0,0,2$$

$\downarrow y_3$

$$1,0,0,1,0,0,0,1,0,1,0,0,1,0,0,2$$

$\downarrow r_3$

$$1,0,0,1,0,0,1,0,0,1,0,0,2,1,0,3$$

$\downarrow g_4$

$$1,0,0,1,0,0,1,0,0,0,0,1,2,1,0,0$$

$\downarrow y_4$

$$1,0,0,1,0,0,1,0,0,0,1,0,2,1,0,0$$

$\downarrow r_4$

$$1,0,0,1,0,0,1,0,0,1,0,0,3,2,1,0$$