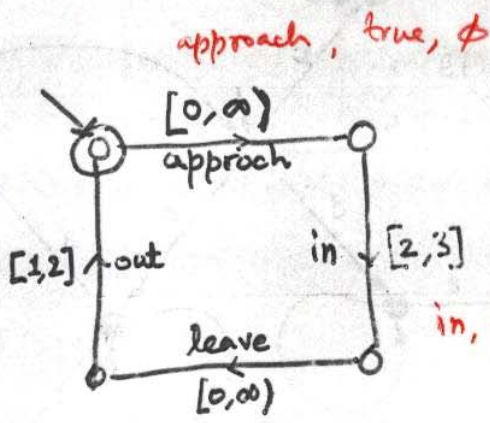
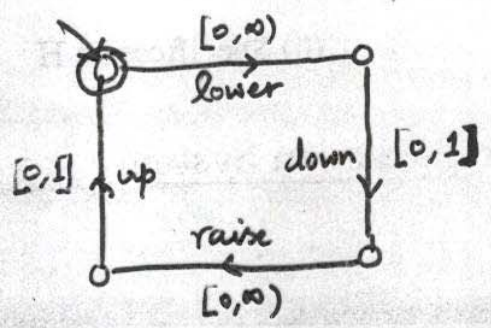
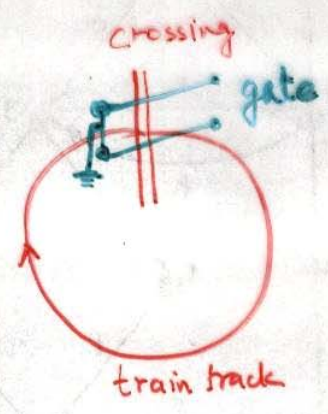


Train-Gate Example



Train
in, $2 \leq c_{in} \leq 3, \{c_{in}\}$



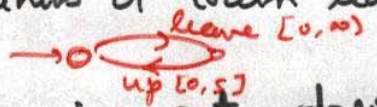
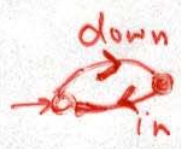
Gate

• $P = \text{train} \parallel \text{gate}$

• Desired timed traces : $K \subseteq T^m(P)$

- train in \Rightarrow gate down

- gate up within 5 time units of train leaving



• Uncontrollable events : approach, in, out, down, up

Unobservable events : in, down, up

$\Sigma_u = \text{sensor} + \text{failure events}$

$\Sigma_o = \text{sensor} + \text{actuator events}$

... synchronization requirements