Button tie-down problem

Safety feature provided in potentially hazardous machines (saw mill, die press) by requiring machine be only allowed to start when both hands are pressing a push-button (can't start machine by one hand).

Step 0

\[ p_i = \text{push}_i; \]
\[ r_i = \text{release}_i; \]
\[ u = "\text{up}"; \]
\[ d = "\text{down}" \]

Uncontrolled plant

Spec: Successive start events must be blocked unless separated by execution of both the push-button events (can't start the machine by tapping down one button and pressing the other thus by using only one hand).

Desired specification

Source: "Basic Control Systems Eng.", Prentice Hall, 1997