

# the FSM for polling of digital input

This is a synchronous Mealy finite state machine

## input

dRead=1  
dRead=0  
TimeOut

## Output

dOut=1  
dOut=0  
none  
startTimer50ms

Act2=startTimer50ms

Act3=startTimer50ms

Act5=startTimer50ms

Act9=startTimer50ms,dOut=0

Act10=startTimer50ms, dOut=1

Act11=startTimer50ms,dOut=1

Act12=startTimer50ms,dOut=0

## states

down  
waitUp  
up  
waitDown

state & action table		states			
		down	waitUp	Up	waitDown
input	dRead=0	down/none	down/Act2	waitDown/Act3	waitDown/none
	dRead=1	waitUp/Act5	waitUp/none	Up/none	Up/none
	TimeOut	down/Act9	up/Act10	up/Act11	down/Act12

