Simple Timer State Diagram:

OnClick:
timer++,
timeout=WAITTIME,
startTimer

● timer=MIN → **Stopped**

Increment

[timer<MAX]

OnClick:
timeout=WAITTIME,
timer++

onTick: timeout --

[timeout>0]

[timer== MAX]
beep

[timeout==0]
beep

onClick:timer=MIN, stopTimer

Running

onTick: timer--

[timer>MIN]

[timer==MIN]
startAlarm

onClick:timer=MIN, stopTimer, stopAlarm

Alarming