|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Current State | Event | | | Next State |
| INIT | k\_pacingMode == 0 or 2 or 4 | | | A\_CHARGING |
| k\_pacingMode == 1 or 3 | | | V\_CHARGING |
| NOT(k\_pacingMode == 0 or 1 or 2 or 3 or 4 or 5) | | | --- |
| A\_CHARGING | m\_pushButton == true | | | A\_CHARGING |
| m\_pushButton == false | | | --- |
| k\_pacingMode == 0 | After(k\_atrPaceDelay) | | A\_PACING |
| NOT(After(k\_atrPaceDelay)) | | --- |
| k\_pacingMode == 1 | | | V\_CHARGING |
| k\_pacingMode == 2 | m\_atrCMPDetect == true | After(k\_arpDelay) | A\_CHARGING |
| NOT(After(k\_arpDelay)) | --- |
| m\_atrCMPDetect == false | | --- |
| k\_pacingMode == 3 | | | V\_CHARGING |
| k\_pacingMode == 4 | | After(k\_pacingAVDelay) | V\_PACING |
| NOT(After(k\_pacingAVDelay)) | --- |
| A\_PACING | After(k\_atrPulseWidth) | | | A\_CHARGING |
| NOT(After(k\_atrPulseWidth)) | | | --- |
| V\_CHARGING | m\_pushButton == true | | | V\_CHARGING |
| m\_pushButton == false | | | --- |
| k\_pacingMode == 0 | | | A\_CHARGING |
| k\_pacingMode == 1 | After(k\_ventPaceDelay) | | V\_PACING |
| NOT(After(k\_ventPaceDelay)) | | --- |
| k\_pacingMode == 2 | | | A\_CHARGING |
| k\_pacingMode == 3 | m\_ventCMPDetect == true | After(k\_vrpDelay) | V\_CHARGING |
| NOT(After(k\_vrpDelay)) | --- |
| m\_ventCMPDetect == false | | --- |
| k\_pacingMode == 4 | | After(k\_atrialEscapeInterval) | A\_PACING |
| NOT(After(k\_atrialEscapeInterval)) | --- |
| V\_PACING | After(k\_ventPulseWidth) | | | V\_CHARGING |
| NOT(After(k\_ventPulseWidth)) | | | --- |

# INIT

## ENTRY:

%Open all switches so no current flow

# A\_CHARGING

## ENTRY:

%Charge the capacitor and rectify the atrial pace

# A\_pacing

## ENTRY:

%Pace the atrium

# V\_CHARGING

## ENTRY:

%Charge the capacitor and rectify the ventricular pace

# V\_PACING

## ENTRY:

%Pace the ventriclek\_pacingAVDelay {uint16} – p\_fixedAVDelay – p\_atrPulseWidth

K\_atrialEscapeInterval {uint16} – ms/beat – k\_pacingAVDelay – p\_ventPulseWidth