

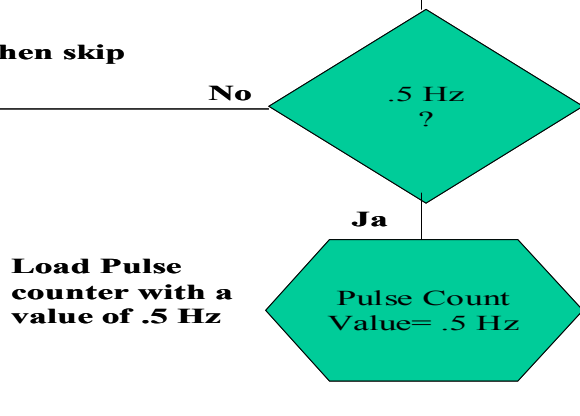
This Subroutine is called every 3.5 Seconds

Subroutine Rand is a 23-Bit RNG and returns a value in Temp

The 8-bit random number in Temp is reduced to 3-Bits

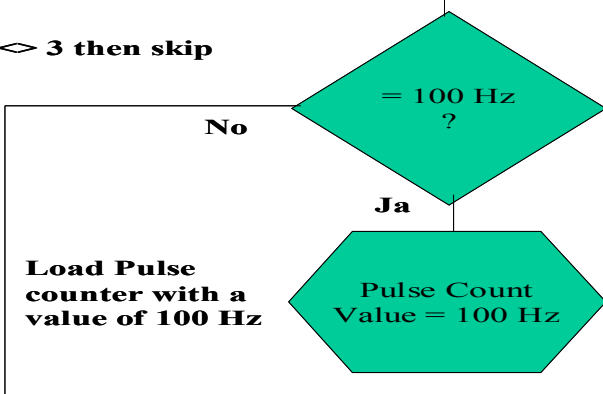
If Temp < 4 then skip

.5 Hz has a statistical weight of 4

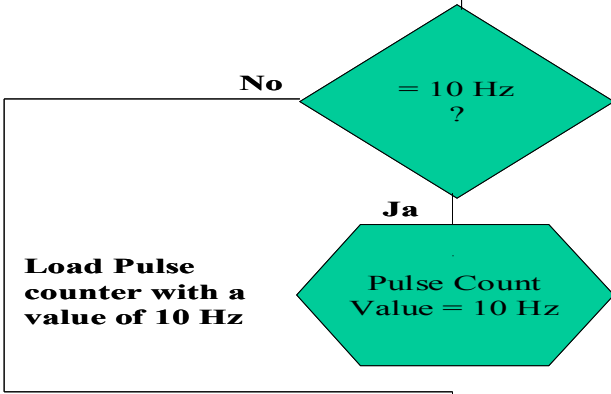


If Temp < 3 then skip

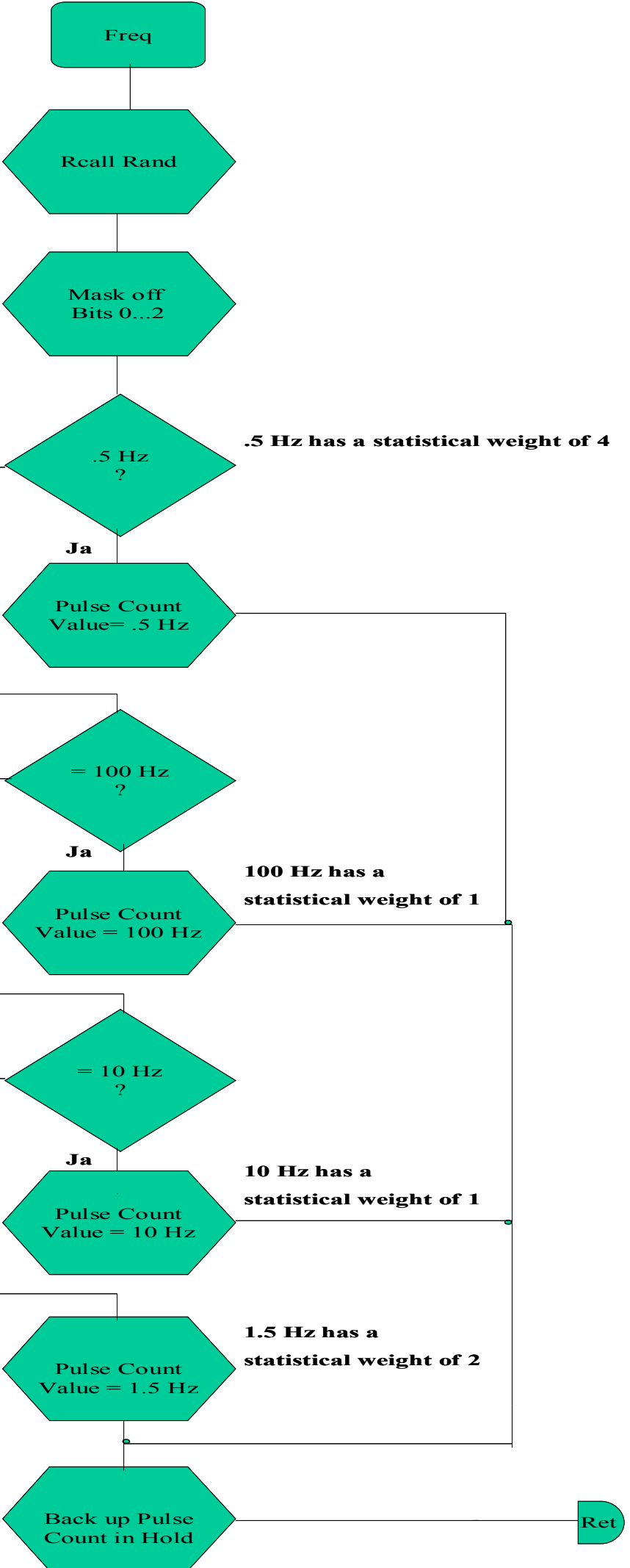
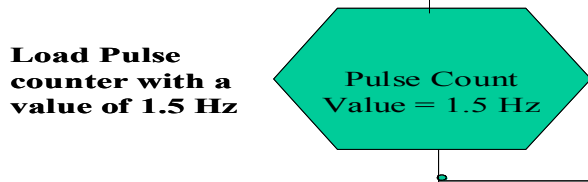
100 Hz has a statistical weight of 1

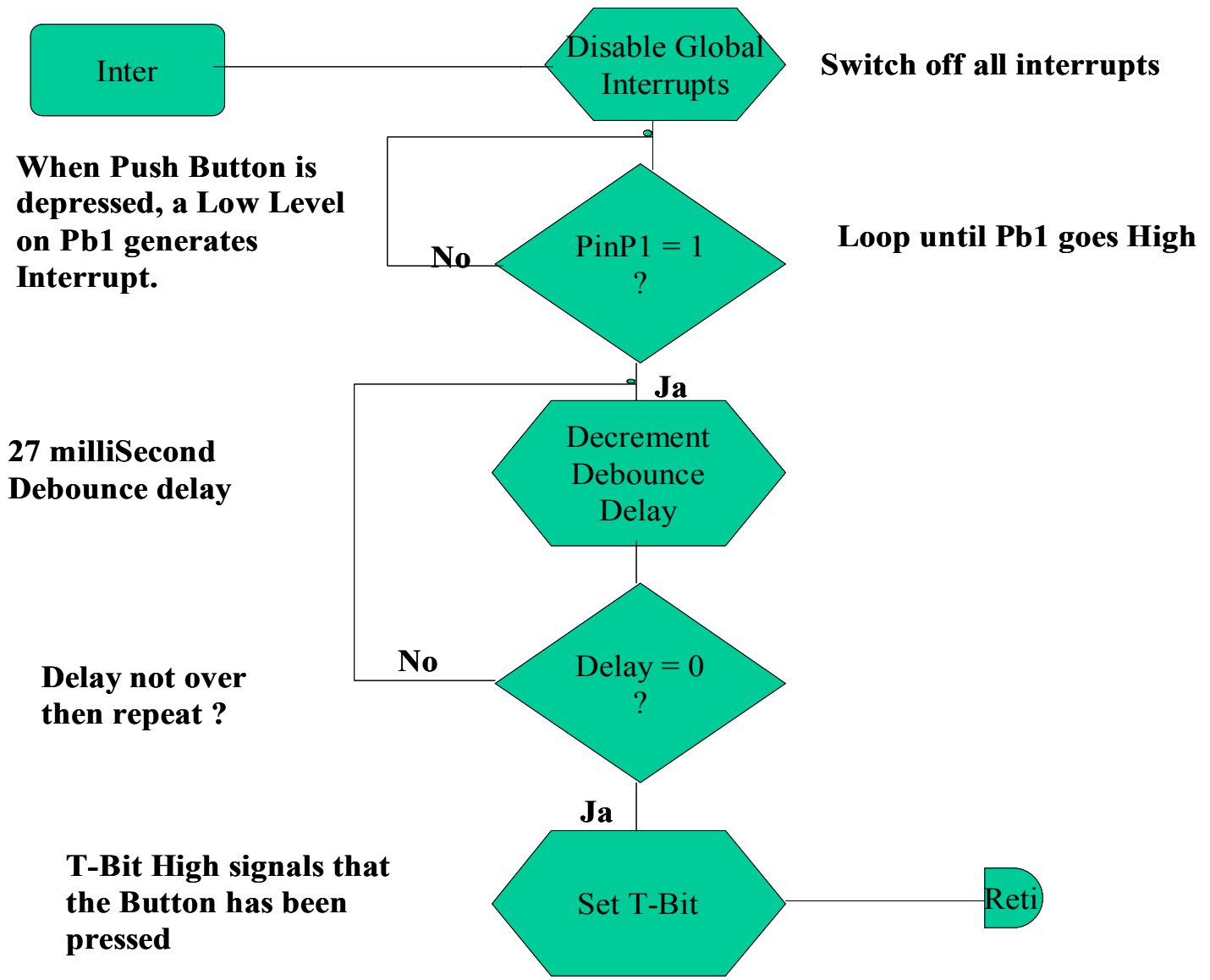


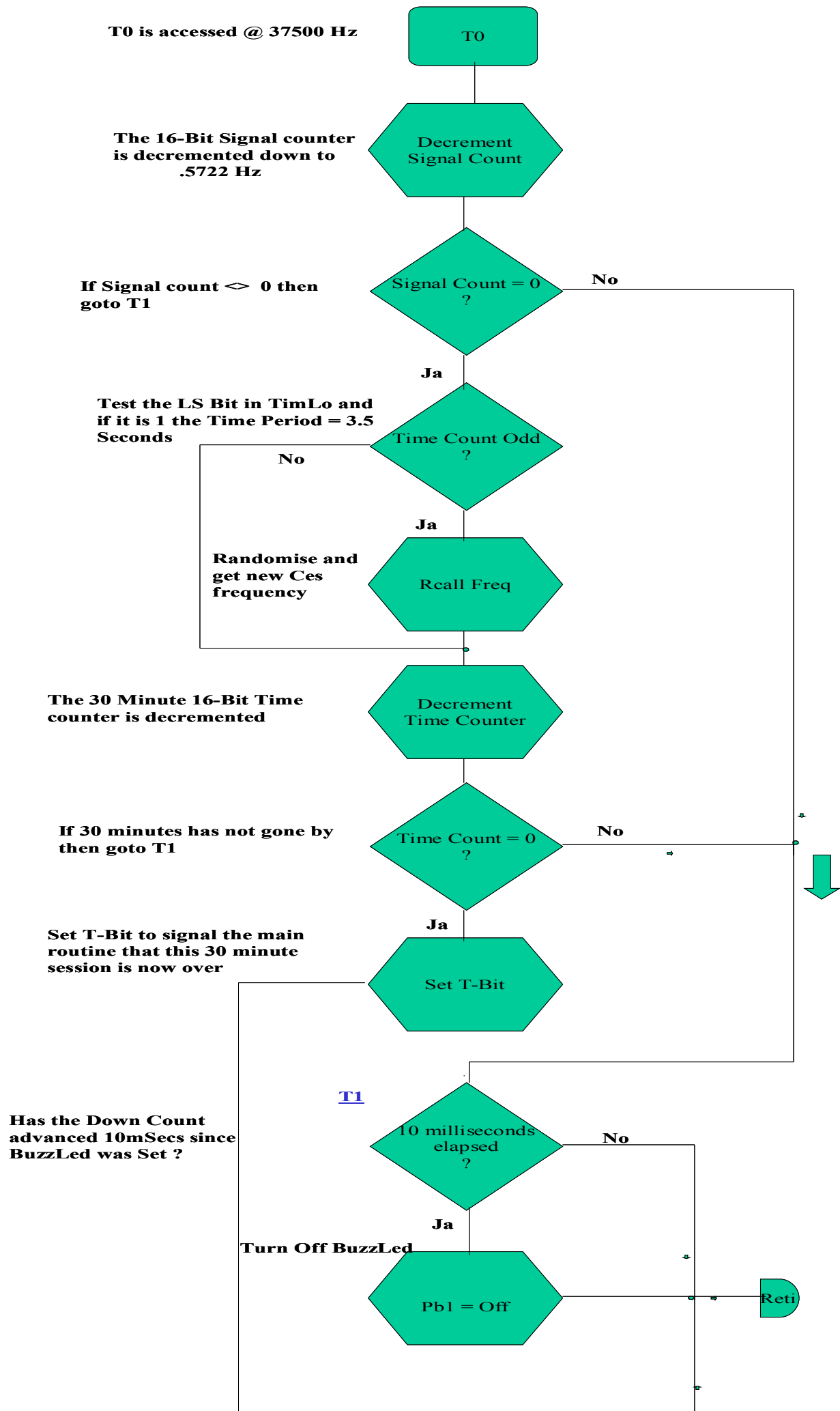
10 Hz has a statistical weight of 1



1.5 Hz has a statistical weight of 2







The Timer0 Overflow Interrupt Routine is called @ 37500 Hz

The 16-Bit Pulse Counter is decremented every 27 Micro Seconds

If Pulse Count has not elapsed then goto T0.

If Pulse Count has ended then restore the Pulse Count value from the Holding Registers

Increase the Pulse Position Register by 1. From Bits 000 to Bits 111. Effectively a divide by 8

We only need the least significant 3 Bits ... XXXX YYYY

Is the Pulse Position Register count now at position 1?

Output the relevant Bits

Is the Pulse Position Register count now at position 5?

Output the relevant Bits

Else clear both Bits

