

CCD Clear

Set Shorter Timer Intervals  
for Quick Clearing

Set CCD State to CLEARING

Set SI to '1' and Start TIM1

Wait until CCD State is  
CLEARING\_COMPLETE

CCD Read

Set Longer Timer Intervals for  
Sufficient ADC Sampling Periods

Wait until  $TIM4 \geq T_{\text{integration}}$

Set CCD State to READING

Set SI to '1' and Start TIM1 and  
TIM3 (ADC)

Wait until CCD State is  
READING\_COMPLETE

Return Single Reading