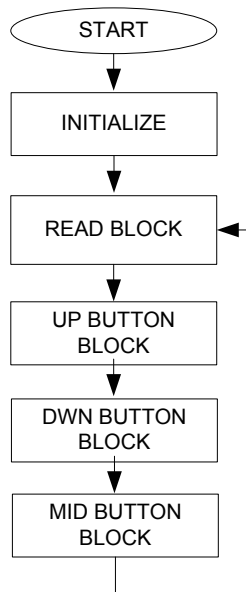


Push Button to I²C Pot Firmware Flowchart

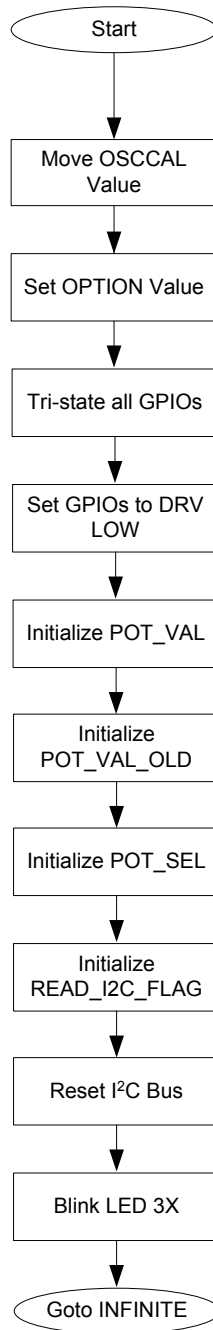


General Description of Functionality:

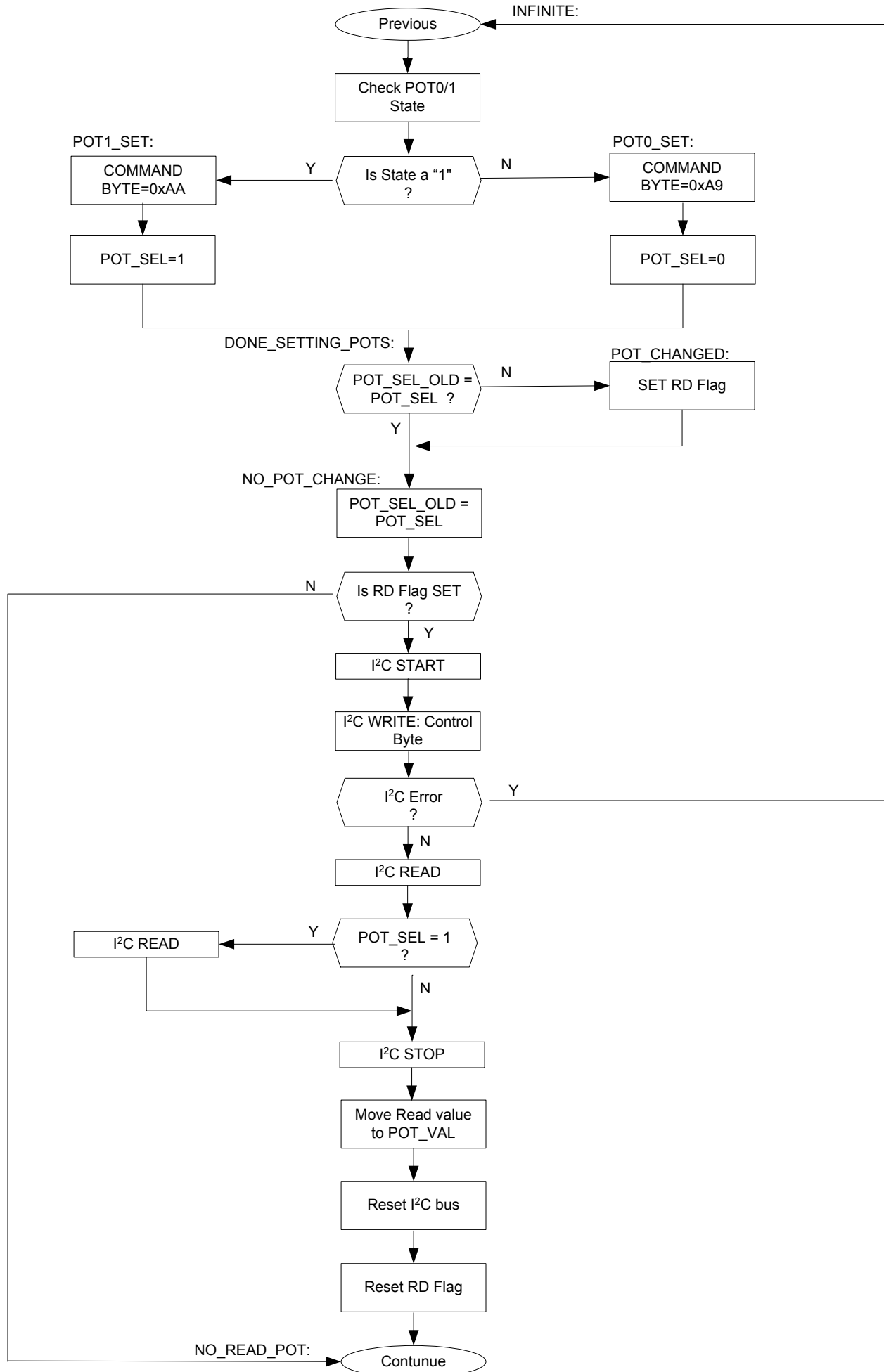
POT0/1 (selection toggle switch)	This switch chooses which POT (if necessary) will be controlled in the next loop iteration. A change of state on this switch selects Pot 0 or 1, causes an I ² C read, but has no effect on LED.
Tap the MID, UP or DWN button (<400ms)	By tapping one of these switches, the selected Pot will either increment (UP), decrement (DWN), or be loaded with the middle position of 0x80 directly (MID). The LED will illuminate briefly while the I ² C write is carried out, and an I ² C read will occur in the next loop iteration.
Press and hold UP or DWN button (>400ms)	By pressing and holding the UP or DWN button, the selected Pot will enter a fast increment or decrement mode whereby the Pot value will continue to change until the button is either released or the max/min position is reached. The LED will illuminate as I ² C writes are carried out and will remain illuminated until the button is released. After button release an I ² C read will occur in the next loop iteration.
Press and hold UP, then tap DWN button	By pressing and holding the UP button, the selected Pot will begin incrementing, then (while the UP button is still depressed) the DWN button is tapped causing the selected Pot to directly be loaded with the maximum position of 0xFF. The LED will illuminate until the switches are released. After the buttons are released an I ² C read will occur in the next loop iteration.
Press and hold DWN, then tap UP button	By pressing and holding the DWN button, the selected Pot will begin decrementing, then (while the DWN button is still depressed) the UP button is tapped causing the selected Pot to directly be loaded with the minimum position of 0x00. The LED will illuminate until the switches are released. After the buttons are released an I ² C read will occur in the next loop iteration.
LED blinks Three times	The LED will blink three times whenever the PIC Controller is initialized during power up or whenever the Watchdog timer causes a system reset (if enabled).
LED continuously blinks quickly	The LED will continually blink quickly whenever an I ² C error occurs. Once the error is corrected the LED will resume normal functionality. Troubleshoot by checking that the device address is correct and that the I ² C bus is connected.

Initialize Flowchart

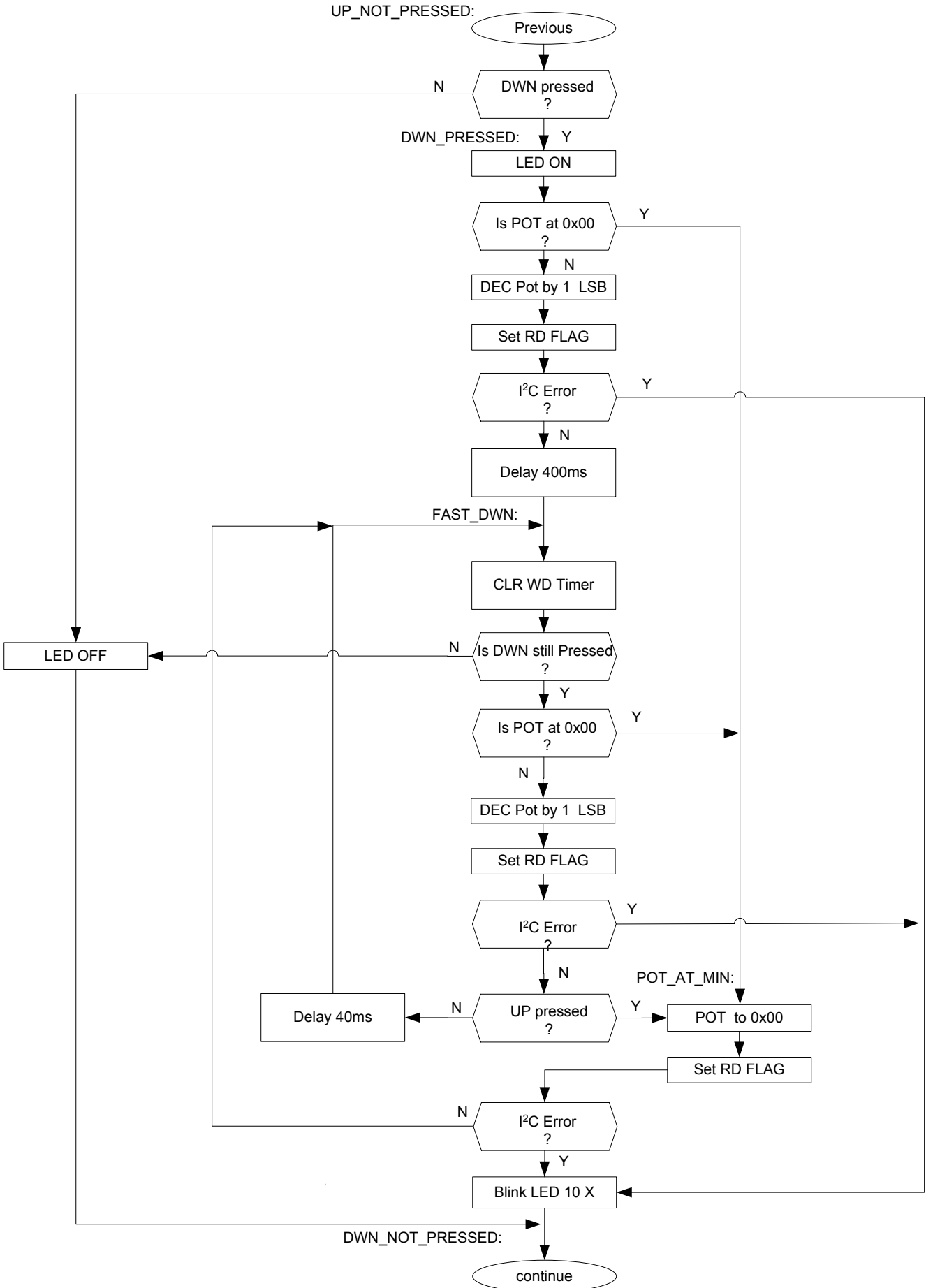
INIT:



I²C Read Block Flowchart



DWN Button Flowchart



MID Button Flowchart

