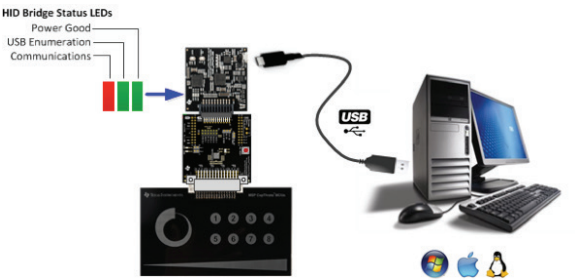
Getting started with MSP MCUs featuring CapTIvate™ technology

Information about the CapTIvate MCU Development Kit (MSP-CAPT-FR2633) can be found at: ti.com/msp-capt-fr2633

STEP 1: **Install CapTIvate Design Center**
Available as part of MSPWare:
ti.com/tool/mspware
Or as a separate download:
ti.com/captivatedesigncenter

STEP 2: **Install and update your IDE – Code Composer Studio™ or IAR**
Please update your IDE to the latest device and emulation support for MSP430FR2633

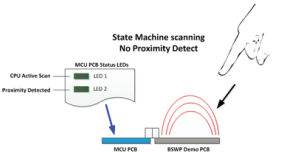


STEP 3: **Getting started with CapTIvate out-of-box experience demo – Wake-on-proximity**

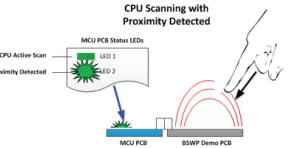
- Connect the CAPT-BSWP demonstration PCB as shown below
- Attach the micro-USB cable between the CAPT-PGMR programmer PCB and your PC
- Verify the CAPT-PGMR green LED (Power Good) is on and the green LED (USB Enumeration) is blinking

- See next page or visit ti.com/captivateexperience for instructions for the Out-of-box demo

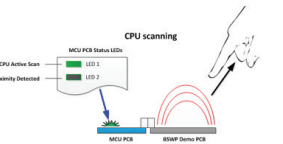
Ultra-low-power wake-on-proximity mode
After power up, the demo may appear to not be doing anything while operating in wake-on-proximity mode. This is the ultra-low-power wake on proximity mode. Both LEDs on the CAPT-FR2633 MCU board will be off. In this state the CPU is in low power mode 3 with the hardware state machine actively scanning the proximity sensor at 10Hz until a proximity event is detected.



CPU wakes with proximity detection
Bring your hand near the board to introduce a proximity condition. This causes the CPU to exit low power mode and resume actively scanning all the panel sensors. As long as your hand is near or touching the panel, LED1 will blink at the rate the CPU is scanning the sensors and LED2 will be on while the proximity detect is true.



CPU active until no proximity detection
After removing your hand away from the board, LED2 led will turn off, however, LED1 will remain on, indicating the panel is still being scanned for a short period by the CPU. After one second the CPU enters low-power mode 3, LED1 turns off and the hardware state machine is now actively scanning only the proximity sensor.



For more information about CapTIvate
ti.com/captivate
ti.com/lit/pdf/slau653

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