Technical Article

Capacitive Touch Evaluation Is Quick & Easy with the EVM430-CAPMINI Demo Board

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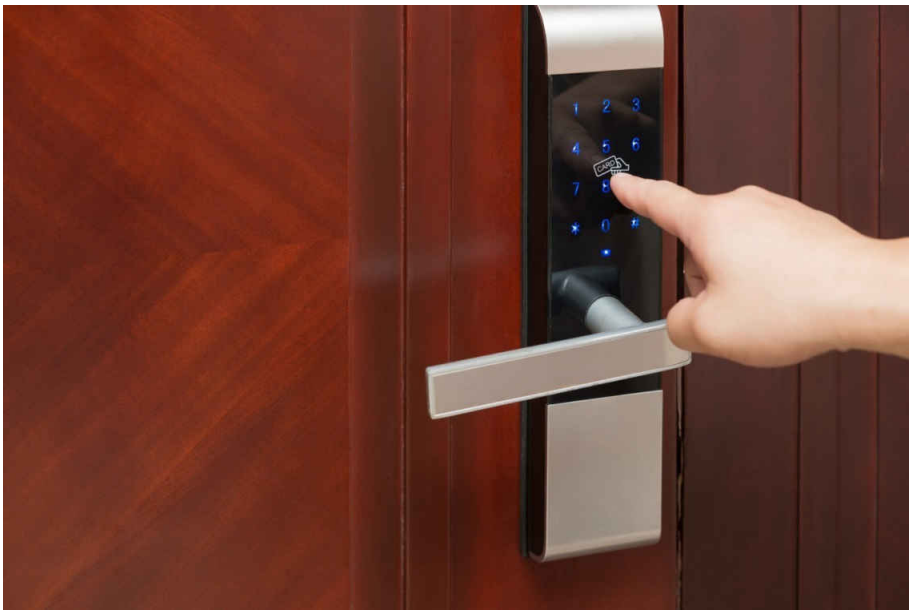

Have you tried capacitive touch? Or have you thought about a cool design with it, but didn't quite know where to start? Now it's easier than ever to quickly evaluate CapTIvate™ capacitive touch for your design – introducing the new EVM430-CAPMINI demonstration board.

With the CAPMINI demo board, you get a simple kit with all you need to get started with your evaluation, including:

- The MSP430FR2512 MCU
- Four capacitive touch buttons
- On-board speaker
- Two power options (battery, USB)
- Dedication HID serial communications bridge

When it's time for development, grab one of the advanced CapTIvate kits, which include capacitive sliders & wheels and touch-through metal, plus many of TI's proprietary features such as LaunchPad™ support.

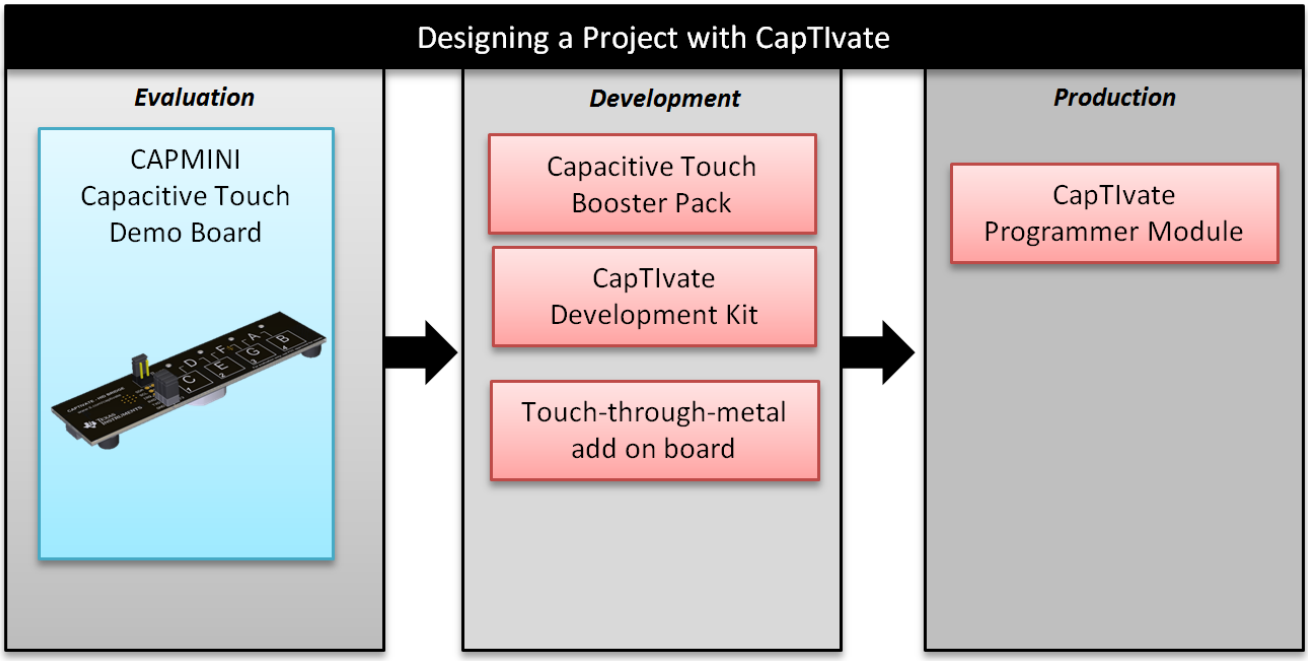

Figure 1. Tools for Designing with CapTIvate

Try CapTIvate: Touch-to-Sound Demo

Your journey to quick and easy evaluation of capacitive touch begins by starting with the CAPMINI touch-to-sound demo and following the three simple steps from evaluation to development to production, outlined in Figure 1 above.

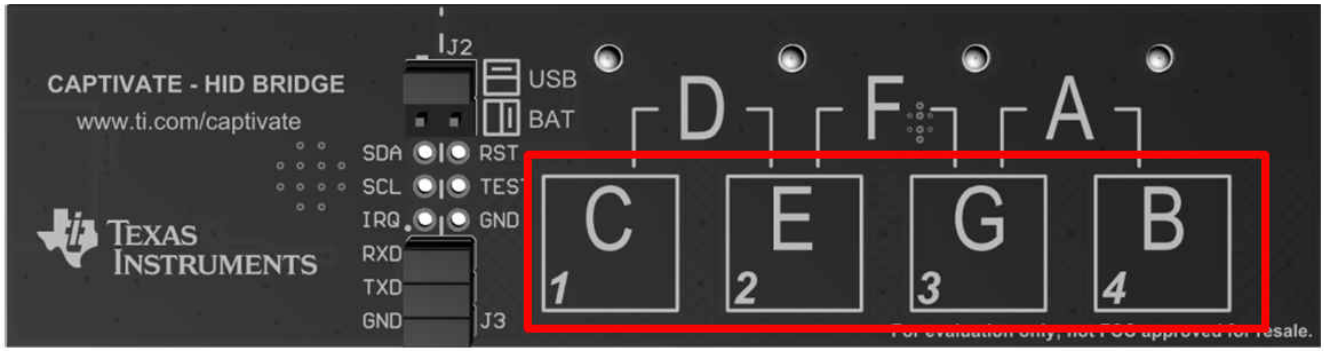

Figure 2. Capacitive Touch Buttons (Red) on CAPMINI Demonstration Board

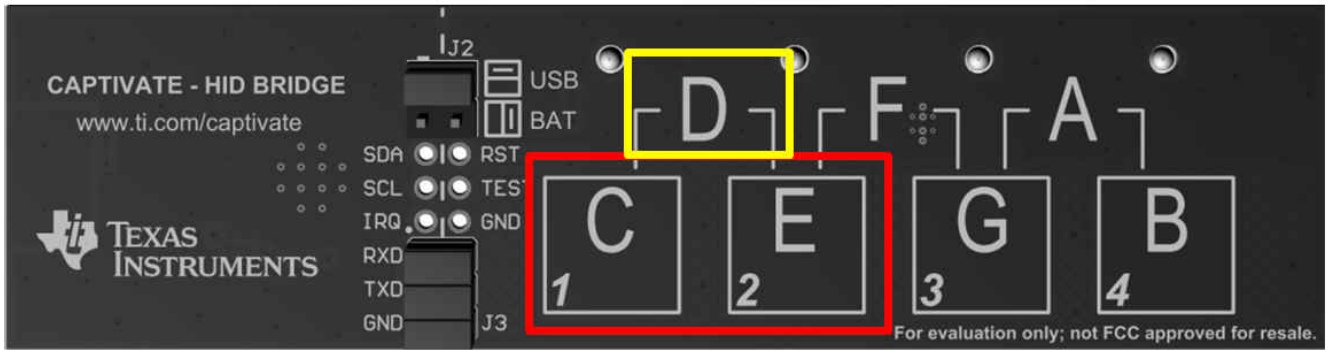

Figure 3. Multi-Touch Output Sound (Yellow) of Both Cap Touch Buttons (Red)

When you touch any of the on board capacitive touch buttons (C, E, G, B), the corresponding note will play out of the onboard speaker (see Figure 2). Multi-touch is also supported. Simply touch two buttons at the same time in the bottom row to play the corresponding note above it (see Figure 3).

Battery Powered: Take CapTIvate On the Go

The EVM430-CAPMINI demo board is powered by an on-board CR1632 3.3V Lithium Cell battery, making evaluation on the go simple, without any wires. If you want to power via USB, just replace the on-board selection jumper from a vertical orientation to horizontal and remove the RXD jumper.

Figure 4. Bottom of EVM430-CAPMINI (Left) Power Selection Jumper (Right)

HID Serial Communications Bridge: Communicate with CapTIvate

The board also includes an HID serial communications bridge supporting I2C and UART. This allows your CAPMINI demo board to communicate to you PC and interface with CapTIvate Design Center – the easy to use drag-and-drop GUI where you can create a capacitive touch design in as little as 5 minutes.

If you do not have a CapTIvate programmer module available, the HID bridge also allows you to bridge communications between other CapTIvate development kits such as the CapTIvate development kit.

Get Started Today

Your future capacitive touch project starts here with the EVM430-CAPMINI. When you're ready to develop further, check out the resources below. What can you create with CapTIvate?

- Watch our capacitive touch demonstration board overview video.
- Check out additional sensor boards, MCU boards, and programmer boards: http://www.ti.com/tool/mspcaptdsnctr.
- Explore the CapTIvate Design Center – your one-stop resource for everything related to CapTIvate capacitive sensing technology: http://www.ti.com/tool/mspcaptdsnctr.

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