# TI Haptics Enabled Gaming Controller BoosterPack - Review

**RoadTest:** TI Haptics Enabled Gaming Controller BoosterPack

**Author:** bodgy

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**Evaluation Type:** Evaluation Boards

**Did you receive all parts the manufacturer stated would be included in the package?:** True

**What other parts do you consider comparable to this product?:**

**What were the biggest problems encountered?:** Trying to make sense of the documentation (SLAA616) available as a download from the Element14 website. Updating version 4 of CCS to version 5 proved impossible and required a complete new install.

**Detailed Review:**

This is the first part of my review, there will be more to follow later this week.

I wanted to test this BoosterPack not for use as a gaming device but perhaps more esoterically as a touch/sound device to be used as a warning system in areas of poor visibility such as lowering/connecting objects in the dark or fog, and also as a device to help people with poor or no sight judge how close they are to an object.

I had already hunted down my TI MSP-EXP430G2 Launchpad purchased in 2010, only to find that I needed a new version, namely version 1.5 (this is marked on the PCB), this is because v1.5 has the new 'back channel UART", which allows the Launchpad to communicate back to the PC. This is required for some of the demo programs and PC based GUI which allows programming your own haptic and touch button sequences. This is mentioned on page 12 of the application note. I then purchased a new Launchpad and a FET Tool.

The FET tool is only needed if you intend to program the Haptics board as a standalone product.

There was the minor annoyance that CCS would not autoupdate itself to v5, it just kept failing. I finally gave up, downloaded the complete CCS installer and found I not only had to uninstall v4 but then had to make a complete new folder to install v5 as it recognised there had been a previous version installed.

My main gripe is the quality of the application note. It appears to me to be a preproduction copy, still waiting for the rough edges to be polished up. I found chapters 1 - 5 muddled, some drawings didn't accurately represent the device I had in my hand, Figure 5 on page 11 looks more like an internal developmental drawing of a prototype rather than the finished product. Figure 7 on page 14 is accurate but only if you have taken the covers off the Haptic Booster pack. At times the application note seems vague, it is unsure if other TI Launchpads can be used with the Booster Pack, something I would have thought TI ought to know.

I only have two criticisms of the board itself.

1. The silkscreen key on the Booster pack could be made more noticeable and so could the number 1 on the Launchpad, without good light and my reading glasses it was hard to see.

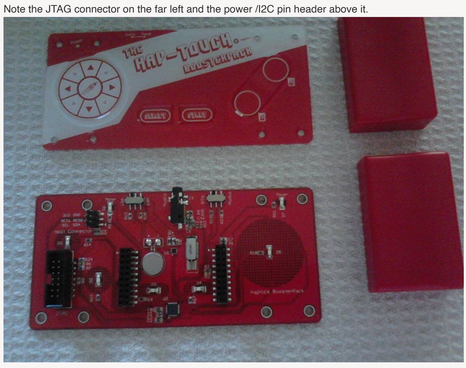
2. The USB socket on the Launchpad makes it difficult to get to the Audio/Touch switch when the two are connected.

The Launchpad board needs to be reprogrammed in order to run correctly with the Haptic pack. The program is provided in the Haptic download page on the TI website. You don't need CCS installed to program either the Launchpad or the Haptic with the demo programs as the download includes a batch file which starts a DOS version of the programming environment and downloads the new firmware automatically.

I would suggest that Element14 should have all the provided libraries for this Booster Pack available for download on their own website.

The Haptics board after removing the plastic grips.

Note the JTAG connector on the far left and the power /I2C pin header above it.



6378.contentimage_153764.html

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<body><font face="arial,helvetica,sans-serif">
<b>Error</b><br><font size="-1">
An general error occurred while processing your request.
</font></font></body></html>
```

The top side with the touch panel removed showing the touch sensors.

I have been trying to get the HapTouch GUI to work reliably, but with little success. My main system is Windows 7 Ultimate with 8GB Ramand an AMD quad core processor, it takes just under two minutes for the GUI to open up, a further forty seconds to populate the text boxes and then it can only randomly find the USB UART Port. I then tried installing the GUI on my laptop which is using Windows 8.1 and also a quad core processor with 4GB RAM, the delay in opening the GUI still exists, so I can only conclude there is a problem with this utility, the WEB based versions also don't seem to work. Worse, in Windows 8.1, the driver for the USB UART is not recognised and therefore there is no way to communicate with the HapTouch device. On the two occasions I managed to get the com port to appear in the comms box, I could send a string to the HapTouch, but the green OK LED in the GUI would then turn red (which is on the right and not on the left of the GUI as the instructions in the HapTouchGUI_UsersGuide.pdf states) and no response back to the GUI occured. The only way out of this is to actually close the GUI and disconnect the device and start again.

The Touch2Key software, partially works and again is temperamental, it is faster to open than the HapTouch, however it is intermittent in recognising the device when in Game Mode, occasionally it reports the port already open and then won't work.

I have yet to try the TouchPro software or install the FET programming tool on either the W7 or W8.1 system.

Once I have installed the FET tool, I will look at debugging and reprogramming the HapticController.



## Scoring

**Total Score**

**Product Performed to Expectations**

**Specifications were sufficient to design with**

**Demo Software was of good quality**

**Product was easy to use**

**Support materials were available**

**The price to performance ratio was good**

## Review - Details



Author: bodgy
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