

# TanvasTouch®

## DESKTOP DEVELOPMENT KIT

ENGINEERING SAMPLE



## Create a Sensation!

Our 10.1" TanvasTouch Desktop Development Kit contains everything you need to create textures and haptic effects on touchscreens, trackpads and physical surfaces. Programming haptics is as simple – and versatile – as creating an image.

## What's Included

### Dedicated Support

5 hours of dedicated support from Tanvas experts to get your project up and running.

### Software, Tools & Training

- > **SDK and documentation**
  - C# API
  - Hello Tanvas tutorial and C# application
  - C API
  - C++ API
  - Detailed API documentation
- > **TanvasTouch Engine Developer Dashboard** - See where haptics are placed on the screen for any app running.
- > **Viewer** - Use this haptic media viewer for rapid iteration and evaluation while designing haptic textures.
- > **Intro App** - An introduction to TanvasTouch technology with several examples of what's possible with surface haptics.
- > **Ongoing Updates** - New features continually added.
- > **UI Reference Library** - Example C# application for an interactive haptic knob, with accompanying source code.



With TanvasTouch®, haptics are infinitely programmable, limited only by the imagination. The TanvasTouch SDK provides everything you need to build your vision. Haptics are designed using a simple image-based metaphor and integrated using intuitive APIs, then rendered in real time by the TanvasTouch Engine.

# Preliminary Specs

<b>Display (Typical)</b>	<b>Video:</b> HDMI	<b>Touch:</b> USB (HID Compliant)
	<b>Contrast:</b> 800:1	<b>Luminance:</b> 350 cd/m <sup>2</sup>
	<b>Viewing Angle:</b> 85/85/85/85 (U/D/L/R)	
<b>Touch Display (System)</b>	<b>Plug and Play:</b> Yes	<b>Operating Temperature:</b> -10°C to 50°C
	<b>UP/Down Scaling:</b> Yes	<b>Storage Temp:</b> -30°C to 50°C
	<b>Firmware Upgradeable:</b> Yes	<b>Power Consumption:</b> 10 W (max)
<b>Technology</b>	<b>Touch detection method:</b> Tanvas Proprietary P-cap	<b>Haptics:</b> Electroadhesion
	<b>Electronics:</b> External PCB	
<b>Mechanical</b>	<b>Surface Hardness:</b> ≥ 9H	<b>Sealability:</b> Can be sealed to meet NEMA 6 and IP-65 standards
	<b>Linear abrasion (1Kg weight, steel wool grade 0000):</b> 3k cycles	
<b>Environmental and Storage Conditions</b>	<b>Operating temperature:</b> -10°C to +50°C, non-condensing humidity	
	<b>Storage temperature:</b> -30°C to +50°C, non-condensing humidity	
<b>Optical</b>	<b>Surface finish:</b> AR/AG; Anti smudge	<b>Light transmission:</b> 90 % ± 3% (ASTM 1003)
<b>Touch Performance</b>	<b>Accuracy:</b> ± 1 mm in the middle area of the panel	<b>Multi-touch:</b> Up to 10 fingers
	<b>Reporting rate:</b> 250 Hz	
<b>Electrical</b>	<b>ESD:</b> +/- 8kV air discharge to panel	<b>EMC:</b> FCC Part 15b, CE
<b>Safety and Regulations</b>	<b>Planned certifications:</b> UL/IEC 62368	<b>Touch current:</b> < 25uA RMS
<b>Interface</b>	<b>Data communication:</b> USB/I2C	
<b>Software</b>	<b>Operating system:</b> Windows*	<b>Supported hardware:</b> X86 (64-bit)*
	<b>Languages:</b> C, C++, C#*	<b>*Multi-platform Support:</b> Contact us about support for other platforms
	<b>Support:</b> Robust and active developer portal	

## About Tanvas

Tanvas is pioneering the next generation of multi-touch haptic technology. Despite advances in graphics, sound and vibration, today's touchscreen is still a lifeless window to the digital world. TanvasTouch surface haptics add a new dimension of interaction by bringing software-defined textures and feelings to physical surfaces. TanvasTouch can be built into any touch-enabled product across many applications including automotive, retail, consumer electronics, visually impaired and custom displays. The company was spun out of Northwestern University and is headquartered in Chicago.