<html><head></head><body>3M Touch Systems, Inc.

Patch for Android and Linux kernels

Version 1.2.0, June 25, 2014

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## PRODUCT SUMMARY

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This patch adds support for 3M PCAP touch displays and systems on Android and Linux kernels that do not support generic HID touch input.

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# ENHANCEMENTS AND FEATURES

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Added support for PX5000 controllers PIDS 548-570.

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# SYSTEM REQUIREMENTS

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Software Prerequisites

- \* This patch is compatible with most Android and Linux systems that run the 3.0-3.4.10 versions of kernels.
- \* This patch is designed to be used by the Linux patch utility. You need to find an equivalent utility if 'patch' is not available in your development environment.

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#### IMPORTANT NOTES

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This patch has been tested on Linux systems using kernel versions close to that used in different versions of Android. The following instructions are for patching the Linux kernel. You may need different commands for your Android development system.

There are multiple patch versions provided. We advise you to select a patch version closest to your Android/Linux kernel version. If patching does not work with the first selected patch, we suggest that you try the next closest patch version.

To apply this patch, you need knowledge of building Linux/Android kernels.

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## INSTALLATION INSTRUCTIONS

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### \* Preparation

Log on the Linux/Android development system. If needed, use 'su' to run as the superuser.

It is recommended that after downloading the patch, move the patch file to directory /usr/src. This is where you will find your Linux kernel directory.

## \* Installation

After downloading and moving the patch file to the directory usr/src, enter your Linux kernel directory (eg. linux-3.0) by issuing the command:

cd < your kernel directory name goes here&gt;

There are a variety of directories. From inside your Linux directory, simply issue the command:

patch -p1 -d drivers < ../patch-3MPXSupport where the flag -p1 strips the directory one level and -d specifies what directory to patch, which in most cases is the /drivers directory. patch-3MPXSupport is the name of the patch, and ../ gives the path to the patch which should be located in your /usr/src directory one level up.

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#### ERROR MESSAGES DURING PATCHING

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- \* Can't remove file: Permission denied
  In virtually every case, a 'permission denied' error message
  indicates that you are not logged into an account with root
  privileges. Simply use the 'su' command to gain root access.
- \* Can't find file to patch
  This indicates that the patch cannot find the directory to patch.
  As recommended, move the patch file to the /usr/src directory,
  outside of your Linux kernel directory tree. Change into your
  linux directory tree and issue the patch command with the -pl and
  -d flags. Be sure to specify the 'drivers' directory in the
  command.
- \* Fuzz message while patching
  In almost every case, a fuzz message does not negatively affect
  your patching. It is simply a message letting you know that patch
  may have changed line numbers during patching. This is done to
  make the patching successful. Typically, fuzz messages are
  displayed when you try to apply a patch to a kernel it was
  never generated in.
- \* A successful application of the patch updates the following files:
  - hid-core.c
  - hid-ids.h
  - hid-multitouch.c

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# REVISION AND HISTORY

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Version 1.2.0, June 25, 2014 Added support for PX5000 controllers with PIDs 548-570

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