

2016-07-12 First draft V0.9

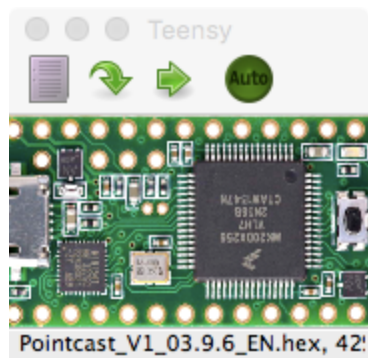
2016-07-12 Updated for Safecast 2.0 board

2016-10-07 added app version for update

Update firmware Pointcast (Mac)

a) Hex upload with Arduino IDE

1. Before you begin, have your Mac plus a Micro-USB cable that is plugged into the Mac.
2. Install Arduino IDE (https://www.arduino.cc/download_handler.php)
3. Install Teensyduino (http://www.pjrc.com/teensy/td_129/TeensyduinoInstall.dmg)
 - a. Download.
 - b. Run installer.
 - c. Select the arduino folder where the Arduino app is installed.
 - d. Install all the libraries.
4. Use the Finder to show the Package contents of /Applications/Arduino 1.6.9.app, and then explore deeper until you find Contents/Java/hardware/tools/teensy.app. Then, create an Alias to that app and place it on your desktop.
5. Download the Ethernet or 3G zip file as appropriate for your Pointcast device: (https://github.com/Safecast/Pointcast/blob/master/Pointcast_V1_0.V4.2.3_EN.hex.zip) and (https://github.com/Safecast/Pointcast/blob/master/Pointcast_V1_0.V4.2.3_3G.hex.zip).
6. Unzip the file to get the HEX file, and place it on your desktop.
7. Run teensy.app via the alias on your desktop.
8. Load the hex file from file menu. The app will look like this, waiting for you to plug in the Teensy processor:



b) Get app for 3G and Ethernet at github

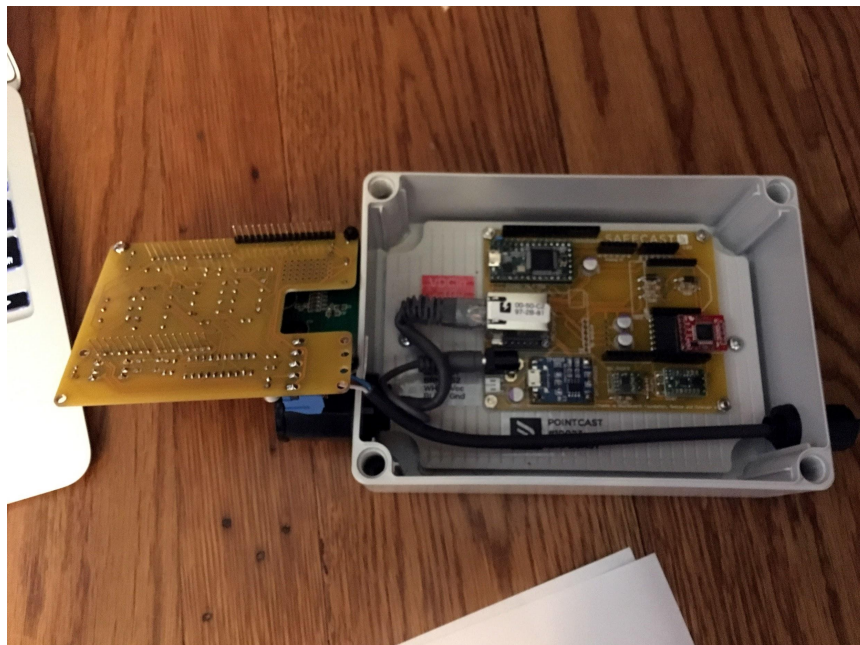
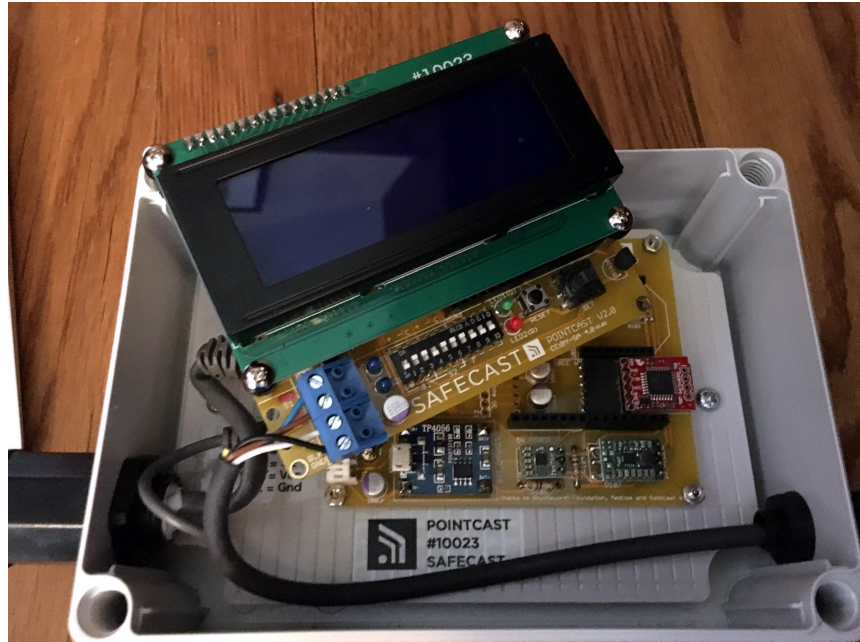
<https://github.com/Safecast/Pointcast/tree/master/app>

6. Unzip the app.
7. Double click the app
8. Follow the next steps and at point 13 push the program button.

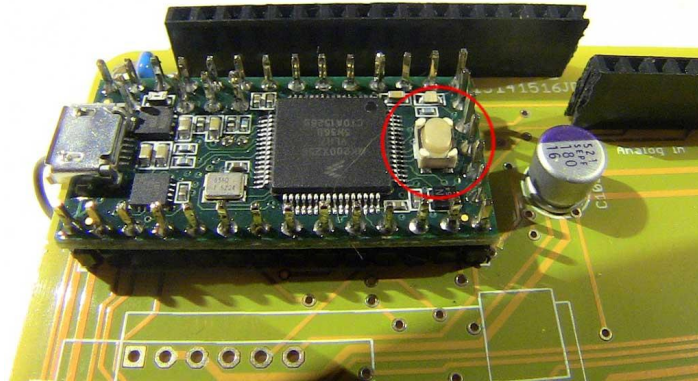
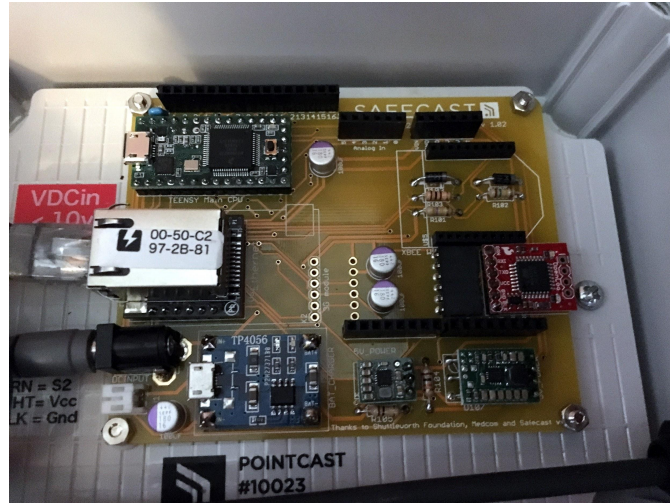
9. Unplug the ethernet connection to the Pointcast device, which will cause it to power off.
10. Remove the clear cover of the Pointcast box by unscrewing the four screws



11. As you can see for the Pointcast V2, there are four layers of boards:
 - a. The bottom-most gray board with the black Safecast logo and serial number
 - b. The “Processor Board” that is mounted to it
 - c. The “Sensor Board” that is plugged into the processor board, and which has the blue screw terminals for the sensor
 - d. The topmost “Display Board” that is plugged into the Sensor Board.
12. What you want to do is to get access to the Processor Board. Fortunately, you don’t need a screwdriver to do so, because the Sensor Board is merely plugged into a socket on the Processor Board, with nothing more than the tension of the pins and sockets holding it in place.
13. Carefully and gently grab both the left and right sides of the Sensor Board, and wiggle them until the Sensor Board separates from the Processor board, like this:



14. Now, look carefully at the board. You'll see the Teensy processor card, which has a reset button on it.



15. Connect the Teensy on the Processor Board to your Mac with the MicroUsb cable. You'll see the Teensy app change to look like this:



16. Press the program button of the Teensy.
17. Now, you'll notice that the little curly "Down Arrow" in the teensy app turns green, indicating that it's ready to download the program to the processor. Press that Down Arrow button.
18. The Teensy app should indicate that the download has been completed successfully. If it doesn't, call someone to help :-)
19. Unplug the Micro USB cable from the Teensy on the Processor Board.

20. Carefully, CAREFULLY plug the Sensor Board back into the Processor Board - looking at an angle at the topmost connector while you're doing so to ensure that all the pins are aligned and that there aren't pins sticking outside the socket on one side or another.
Gently but firmly make sure the Sensor Board is tightly seated on the Processor Board.
21. Screw the clear plastic cover back onto the Safecast box
22. Plug the Ethernet cable back into the box.
23. You're done. The Pointcast should be booting.