

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.

Petitioner,

v.

MASIMO CORPORATION,

Patent Owner.

Case IPR2020-01538
U.S. Patent 10,588,554

DECLARATION OF CAROL PETERSON

I, Carol Peterson, declare as follows:

1. I have personal knowledge of the facts set forth herein.
2. I am a research librarian at the law firm of Knobbe, Martens, Olson & Bear, LLP.
3. On 28 May 2021, I accessed the following uniform resource locator (“URL”) using Microsoft Edge:

<https://web.wpi.edu/Pubs/E-project/Available/E-project-042413-160152>

4. Exhibit 2014 is a true and accurate copy of a printout of the above URL on 28 May 2021. Below is a screenshot of the webpage at the above URL on 28 May 2021.

 Worcester Polytechnic Institute *Electronic Projects Collection*

Title page for E-project-042413-160152

Project Type	MQP
Submission date	2013-04-24
Authors	<ul style="list-style-type: none">• Alexandra V Fontaine, BE• Arben Koshi, BE• Danielle C Morabito, BE• Nicolas A Rodriguez, BE
URN	E-project-042413-160152
Title	Reflectance-Based Pulse Oximetry for the Chest and Wrist
Advisor	<ul style="list-style-type: none">• Mendelson, Yitzhak, BE
Availability	unrestricted
Abstract	<p>Reflectance-based pulse oximetry is a technique used for noninvasively monitoring the oxygen saturation (SpO₂) and pulse rate (PR). However, there is little supporting evidence that it can accurately collect measurements from the chest and wrist. In this project, a reflectance-based pulse oximeter was built and used to collect measurements while sitting, standing, during self-induced hypoxia, and during self-induced hyperventilation then compared to the measurements taken by a HOMEDIC Deluxe Pulse Oximeter. The prototype was able to accurately measure within an error of +1% and ±3% for SpO₂ and PR respectively from the wrist while an error of ±1% and +4% for SpO₂ and PR respectively from the chest.</p>
Files	<ul style="list-style-type: none">• Final_MQP_Report.pdf

[Browse by Author](#) | [Browse by Department](#) | [Search](#) all available E-projects



Questions? Email project-questions@wpi.edu
Maintained by webmaster@wpi.edu

5. Also on 28 May 2021, I accessed the document Final_MQP_Report.pdf, using a link located at the URL listed in paragraph 3 of this declaration. This link directed Microsoft Edge to the following URL:

https://web.wpi.edu/Pubs/E-project/Available/E-project-042413-160152/unrestricted/Final_MQP_Report.pdf

6. Exhibit 2015 is a true and accurate copy of a printout of the document Final_MQP_Report.pdf located at the URL in paragraph 5 of this declaration on 28 May 2021, and available and accessed via the link in paragraph 3 of this declaration. Below is a screenshot of a top portion of the document Final_MQP_Report.pdf located at the URL in paragraph 5 of this declaration on 28 May 2021.



REFLECTANCE-BASED PULSE OXIMETER FOR THE CHEST AND WRIST

A Major Qualifying Project Report:

Submitted to the Faculty

Of the

WORCESTER POLYTECHNIC INSTITUTE

In partial fulfillment of the requirements for the

Degree of Bachelor of Science

7. On 28 May 2021, I accessed the following uniform resource locator (“URL”) using Microsoft Edge:

<https://spectrum.ieee.org/view-from-the-valley/biomedical/devices/should-you-trust-apples-new-blood-oxygen-sensor>

8. Exhibit 2016 is a true and accurate copy of a printout of the above URL on 28 May 2021. Below is a screenshot of a top portion the webpage at the above URL on 28 May 2021.

The screenshot shows the top portion of the IEEE Spectrum website. At the top, there is a navigation bar with links for 'Join IEEE', 'IEEE.org', 'IEEE Xplore Digital Library', 'IEEE Standards', 'IEEE Spectrum', and 'More Sites'. On the right side of this bar are links for 'Create Account' and 'Sign In'. Below the navigation bar is the IEEE Spectrum logo, followed by a menu of categories: 'Topics', 'Reports', 'Blogs', 'Multimedia', 'Magazine', 'Resources', and 'Search'. A secondary navigation bar below the menu contains the text 'View From the Valley | Biomedical | Biomedical Devices'. The main content area displays the date and time '21 Sep 2020 | 19:00 GMT' above the article title 'Should You Trust Apple's New Blood Oxygen Sensor?'. Below the title is a sub-headline: 'In the time of COVID, pulse oximeters are the new thermometers, on the shelves of many medicine cabinets. But do they belong in wristwatches?'. At the bottom of the sub-headline is the author's name 'By Tekla S. Perry'.

I declare under penalty of perjury that the foregoing is true and correct.

Dated: May 28,2021

By: /Carol Peterson/
Carol Peterson