

**Before the
Copyright Office
Library of Congress
Washington, D.C. 20024**

In the Matter of

Exemption to Prohibition on
Circumvention of Copyright
Protection Systems for Access
Control Technologies

Docket No. 2014-07

**PETITION FOR A PROPOSED EXEMPTION
UNDER 17 U.S.C. § 1201
OF
PUBLIC KNOWLEDGE**

Michael Weinberg
Public Knowledge
1818 N St, NW
Suite 410
Washington, DC 20036
(202) 861-0020

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I. Submitter and Contact Information

This proposal is respectfully submitted by Public Knowledge (“Proponent”). Our contact information is as follows:

Public Knowledge
1818 N St, NW
Suite 410
Washington, DC 20036
202-861-0020
mweinberg@publicknowledge.org

II. Brief Overview of Proposed Exemption

Proponent seeks an exemption for users of 3D printers that are protected by control technologies when circumvention is accomplished solely for the purpose of using non-manufacturer approved feedstock in the printer. The technological protection measure (“TPM”) can vary from machine to machine, but can be broadly defined as a software-reliant verification method that prevents the printer from accepting non-manufacturer-approved feedstock.

3D printing, or additive manufacturing, refers to a family of technologies that can be used to build physical objects from digital files. While the precise technologies used to achieve this process vary, all make use of consumable feedstocks in order to build the object. This is similar to the way that traditional 2D printing technologies vary, but all 2D printers rely on some sort of consumable input (such as toner) in order to print images and words on the page.

Many 3D printer manufacturers also sell feedstocks, or maintain an authorized network of feedstock vendors. In some cases manufacturers use TPMs, such as verification chips, in order to prevent printers from using non-approved stocks. This exemption would allow users of 3D printers to make use of feedstocks of their choice without fear of violating 17 U.S.C. § 1201. While copyright-protected software is involved in the verification process, it is

incidental at best to the larger activity of allowing users of 3D printers to make use of the feedstock of their choice.

III. Copyrighted Works Sought to Be Accessed

Users of 3D printers who seek to make use of non-authorized feedstocks may need to access copyrighted controller programs or programs designed to prevent non-authorized feedstock use.

IV. Technological Protection Measure

The TPM at issue is any technology used by printer manufacturers to digitally verify the origin of feedstock.

V. Noninfringing Uses

The noninfringing use at issue is the access of programs designed to prevent the use of non-authorized feedstocks in 3D printers. As noted by the Sixth Circuit in *Lexmark International, Inc. v. Static Control Components, Inc.*, 387 F.3d 522 (2004), Congress did not intend for the DMCA to prevent consumers from using lawfully acquired consumer goods. The mere fact that copyright-protected programs are accessed in the use of a 3D printer or are used to verify feedstock in a 3D printer should not grant manufacturers the ability to control the use of those printers. While manufactures are free to condition offers such as warranties on the use of approved feedstocks, as well as obtain patents on specific feedstocks, it is improper for them to rely on Section 1201 to prohibit users of 3D printers from using alternative feedstocks.

VI. Adverse Effects

Interoperability, innovation, and consumer value are all negatively impacted by manufacturer-imposed feedstock restrictions in 3D printers. Through the interoperability provision of the DMCA and in the record surrounding its passing, Congress sought to prevent the DMCA from

undermining consumer benefits of interoperability in the consumer electronics environment. *See Lexmark* at 549.

Preventing unauthorized feedstocks undermines larger innovation in the 3D printing world. Materials innovation is one of the engines driving the 3D printing industry forward. While many 3D printer manufacturers make important contributions to 3D printable materials, they are not the only ones. “Outsider” materials innovation, from the University of Washington’s recycled milk jug feedstock that created a 3D printed boat,¹ to Rice University’s 3D printing of living tissues,² should not be blocked by manufacturer-imposed limitations on printer use.

Opening the market to non-approved stocks helps increase consumer choice and value. Competitive feedstock manufacturers can offer users of 3D printers innovative new options. Similarly, they can offer competitive options that drive down prices for existing feedstocks.

By:

/s/

Michael Weinberg
Public Knowledge
1818 N St, NW
Suite 410
Washington, DC 20036
(202) 861-0020 ext. 106

Respectfully submitted,

Public Knowledge

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¹ *WOOF Rocks the Boat*, Open3DP Blog (July 14, 2012)
<http://open3dp.me.washington.edu/2012/07/woof-rocks-the-boat/>
² Advanced Manufacturing Research Institute at Rice University,
<http://amrinstitute.org/>