

Title (en)
OPTICAL SENSING TECHNIQUES FOR CALIBRATION OF AN ADDITIVE FABRICATION DEVICE AND RELATED SYSTEMS AND METHODS

Title (de)
OPTISCHE ABTASTVERFAHREN ZUR KALIBRIERUNG EINER VORRICHTUNG ZUR GENERATIVEN FERTIGUNG SOWIE ZUGEHÖRIGE SYSTEME UND VERFAHREN

Title (fr)
TECHNIQUES DE DÉTECTION OPTIQUE POUR L'ÉTALONNAGE D'UN DISPOSITIF DE FABRICATION ADDITIVE ET SYSTÈMES ET PROCÉDÉS ASSOCIÉS

Publication
EP 3737832 A4 20210811 (EN)

Application
EP 18900224 A 20180109

Priority
US 2018012927 W 20180109

Abstract (en)
[origin: WO2019139561A1] Techniques of optically sensing fiducial targets, such as calibration patterns, within an additive fabrication device are provided. In some embodiments, fiducial targets may be disposed on a structure configured to contact source material of the additive fabrication device, the source material being a material from which the device is configured to fabricate solid objects. Indirect sensing means may be employed such that light emitted from a light source of the additive fabrication device scatters from the surface of a fiducial target. At least some of this scattered light can be measured by a sensor and used to determine a position of the fiducial target. In some embodiments, the fiducial target may be configured to move relative to the light source and/or sensor to provide additional information on the target's position via the light scattered from its surface.

IPC 8 full level
E21B 47/00 (2012.01); **B29C 64/124** (2017.01); **B29C 64/153** (2017.01); **B29C 64/218** (2017.01); **B29C 64/255** (2017.01); **B33Y 30/00** (2015.01); **E21B 47/10** (2012.01); **G01D 5/353** (2006.01)

CPC (source: EP US)
B22F 10/12 (2021.01 - EP US); **B22F 10/28** (2021.01 - EP US); **B22F 10/31** (2021.01 - EP US); **B22F 12/50** (2021.01 - EP US); **B22F 12/90** (2021.01 - EP US); **B29C 64/124** (2017.07 - EP); **B29C 64/153** (2017.07 - EP); **B29C 64/218** (2017.07 - EP); **B29C 64/255** (2017.07 - EP); **B29C 64/393** (2017.07 - EP); **B33Y 10/00** (2014.12 - EP US); **B33Y 30/00** (2014.12 - EP); **B33Y 50/02** (2014.12 - EP); **B33Y 99/00** (2014.12 - EP); **B22F 12/41** (2021.01 - EP US); **B22F 12/49** (2021.01 - EP US); **B22F 12/63** (2021.01 - EP US); **Y02P 10/25** (2015.11 - EP)

Citation (search report)
• [XAI] WO 2009026520 A1 20090226 - 3D SYSTEMS INC [US], et al
• [XAI] WO 2017108762 A1 20170629 - EOS GMBH ELECTRO OPTICAL SYSTEMS [DE]
• See references of WO 2019139561A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
WO 2019139561 A1 20190718; EP 3737832 A1 20201118; EP 3737832 A4 20210811

DOCDB simple family (application)
US 2018012927 W 20180109; EP 18900224 A 20180109