## 506150547 07/13/2020

# PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
Hubert Josef Soyer	03/11/2019
Lasse Espeholt	03/05/2019
Karen Simonyan	03/05/2019
Yotam Doron	03/05/2019
Vlad Firoiu	03/05/2019
Volodymyr Mnih	03/06/2019
Koray Kavukcuoglu	03/21/2019
Remi Munos	03/07/2019
Thomas Ward	03/15/2019
TIMOTHY JAMES ALEXANDER HARLEY	03/05/2019
lain Robert Dunning	03/05/2019

#### **RECEIVING PARTY DATA**

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Street Address:	5 NEW STREET SQUARE
City:	LONDON
State/Country:	UNITED KINGDOM
Postal Code:	EC4A 3TW

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	16767049

#### **CORRESPONDENCE DATA**

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ATTORNEY DOCKET NUMBER:	45288-8546US1
NAME OF SUBMITTER:	LISA SWANSON
SIGNATURE:	/Lisa Swanson/
<b>DATE SIGNED:</b> 07/13/2020	
Total Attachments: 8	
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### ASSIGNMENT and CONFIRMATION

IRD 7/4/2020 We, <u>Hubert Josef Soyer</u>, <u>Lasse Espeholt</u>, <u>Karen Simonyan</u>, <u>Yotam Doron</u>, <u>Vlad Firoiu</u>, <u>Volodymyr Mnih</u>, <u>Koray Kavukcuogiu</u>, <u>Remi Munos</u>, <u>Thomas Ward</u>, <u>Timothy James Alexander Harley</u> and <u>Jain Dunning</u>, each hereby confirm the assignment and transfer to DeepMind Technologies Limited, a company organized under the laws of the United Kingdom, having a place of business at 5 New Street Square, London, EC4A 3TW United Kingdom, and its successors and assigns (collectively, "ASSIGNEE") of all of our individual and joint right, title and interest throughout the world in and to any and all inventions and improvements that are the subject or subjects of a patent application entitled

# DISTRIBUTED TRAINING USING OFF-POLICY ACTOR-CRITIC REINFORCEMENT LEARNING

Patent Office (EPO) on February 5, 2019 as Application No. PCT/EP2019/052692, and which claims priority to U.S. Application Serial No. 62/626,643, filed on February 5, 2018, which was previously assigned to Assignee. We authorize and request the attorneys filing the application to complete this assignment by inserting the filing date and serial number of the application when known. The foregoing assignment and transfer occurred by operation of one or more agreements relating to our employment by DeepMind Technologies Limited or an affiliate of DeepMind Technologies Limited. Should any of us have any remaining interest, we each hereby assign and transfer any right, title or interest we may have in the above-mentioned inventions and improvements anywhere in the world to ASSIGNEE.

This assignment and confirmation includes the foregoing patent application or patent; all legal equivalents thereof in any country and all patents issuing therefrom; all patents, utility models, and design registrations granted for any of said inventions and improvements throughout the world; and the right to claim priority based on the filing

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date of the foregoing patent application or patent under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes. We authorize ASSIGNEE to apply in all countries in our names or in the name of ASSIGNEE for patents, utility models, and design registrations and like rights of exclusion and for inventors' certificates for the assigned inventions and improvements.

The foregoing assignments have been made for good and valuable consideration, the receipt of which is hereby acknowledged, and in accordance with the employment-related agreements existing at the time the above-mentioned inventions and improvements were made.

We hereby represent and covenant that no assignment, agreement or encumbrance has been or will be made or entered into by us that would conflict with the abovementioned assignment of the inventions and improvements to ASSIGNEE.

We further covenant for ourselves and our respective heirs, legal representatives and assigns to provide to ASSIGNEE promptly upon the request of ASSIGNEE all pertinent facts and documents relating to any of the above-mentioned inventions and improvements, patent applications, patents and legal equivalents, as may be known and accessible to us; to testify as to the same in any interference, litigation, or proceeding relating thereto; and promptly to execute and deliver to ASSIGNEE or its legal representative any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue or enforce any of the above-mentioned applications, inventions and improvements, patents and equivalents thereof which may be necessary or desirable to carry out the purposes thereof.

Dated: 3/11/2019	4-44 S 94
	Hubert Josef Soyer

Joeusigned by:

	Page 3 of 4
Dated:	Lasse Espeholt
Dated: 3/5/2019	Coustigned by:  Lieux Lord Survey Survey  Karen Simonyan
3/5/2019 Dated:	Yotam Doron
Dated:	Vlad Firoiu
Dated:	Volodymyr Mnih
Dated:	Koray Kavukcuoglu
Dated: 3/7/2019	Remi Munos
Dated:	TIBUL  Thomas Ward

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Dated: 3/5/2019

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Attorney's Docket No.: 45288-8546WO1

Attorney's Docket No.: 45288-8546WO1

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### ASSIGNMENT and CONFIRMATION

We, Hubert Josef Soyer, Lasse Espeholt, Karen Simonyan, Yotam Doron, Vlad Firoiu, Volodymyr Mnih, Koray Kavukcuoglu, Remi Munos, Thomas Ward, Timothy James Alexander Harley and Iain Dunning, each hereby confirm the assignment and transfer to DeepMind Technologies Limited, a company organized under the laws of the United Kingdom, having a place of business at 5 New Street Square, London, EC4A 3TW United Kingdom, and its successors and assigns (collectively, "ASSIGNEE") of all of our individual and joint right, title and interest throughout the world in and to any and all inventions and improvements that are the subject or subjects of a patent application entitled

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date of the foregoing patent application or patent under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes. We authorize ASSIGNEE to apply in all countries in our names or in the name of ASSIGNEE for patents, utility models, and design registrations and like rights of exclusion and for inventors' certificates for the assigned inventions and improvements.

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We hereby represent and covenant that no assignment, agreement or encumbrance has been or will be made or entered into by us that would conflict with the abovementioned assignment of the inventions and improvements to ASSIGNEE.

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Dated:	
	Hubert Josef Soyer

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Dated:	
	Lasse Espeholt
Dated:	Karen Simonyan
Dated:	Yotam Doron
Dated:	Vlad Firoiu
Dated:	Volodymyr Mnih
3/21/2019 Dated:	Bocusigned by:  AD883210C6694438  Koray Kavukcuoglu
Dated:	Remi Munos
Dated:	Thomas Ward

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Dated:	
	Timothy James Alexander Harley
Dated:	
	lain Dunning
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**RECORDED: 07/13/2020**