### UNITED STATES PATENT AND TRADEMARK OFFICE

## BEFORE THE PATENT TRIAL AND APPEAL BOARD

Shenzhen Silver Star Intelligent Technology Co., Ltd. Petitioner

V.

iRobot Corporation Patent Owner

U.S. Patent No. 7,155,308 Filing Date: June 3, 2003 Issue Date: December 26, 2006

Title: Robot Obstacle Detection System

## DECLARATION OF HAGEN SCHEMPF, Ph.D.

Inter Partes Review No. <To Be Assigned>



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## I, Hagen Schempf, Ph.D., declare as follows:

1. I have been asked by Petitioner, Shenzhen Silver Star Intelligent Technology Co. Ltd, to provide a declaration regarding certain aspects of U.S. Patent No. 7,155,308 ("the '308 Patent") addressed below, which I understand is the subject of the present *inter partes* review proceeding.

### I. BACKGROUND AND EXPERIENCE

2. I am over the age of 18 and am competent to offer this Declaration.

I have personal knowledge, or have developed knowledge of these technologies based upon education, training, or experience, of the matters set forth herein.

## A. General Work Experience and Professional Background

3. I currently act as a technology consultant in the position of coowner for Icon Consultants, LLC, which I co-founded after retiring from my 25year tenured academic research and development and teaching (1990-2015)
career at The Robotics Institute at Carnegie Mellon University in Pittsburgh, PA,
as well as my 12-years (1998-2010) of co-owning a robotics technology startup
company (Automatika, Inc.) I co-founded, which was sold to QinetiQ in 2007. I
have a very broad and deep understanding of robotics technologies as it relates
to design, mechanisms, sensing, control as well as electronics and software
systems utilized in mobile robots. I led teams that developed multiple robots for
use in hazardous (asbestos-abatement), underwater (wreck-ROVs), outer-space



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