

(About Hanson Robotics)

To: Dr. David Hanson, President

From: Dillon Welch, Junior Programmer

Subject: Situation here at Hanson Robotics

Date: 5/14/2010

I am pleased to submit to you "The Personal Robot: The Key to our Future," an analysis of the situation here at Hanson Robotics as well as a solution. The situation is that robots have not developed to the point which society dreams of them to be. The report details the past of robotics and an analysis of where we are today.

To deal with this situation, it is proposed that a new division focused solely on personal robots. This division would start out new R&D in making better personal robots. Various ideas should be focused on by this new division, such as the feasibility of developing single-purpose robots, changing attitudes towards robots held by society, and looking into new ideas about human-robot interaction skills and guiding design philosophies.

If the solution seems like a viable idea, I can put together a plan of action for starting up the new division. I would be happy to come to meetings to better explain these ideas as well.

## The Personal Robot: The Key to our Future

Prepared for: Dr. David Hanson, President Hanson Robotics

Prepared by: Dillon Welch, Junior Programmer

**Hanson Robotics** 

May 14<sup>th</sup>, 2010

## **Abstract**

## The Personal Robot: The Key to our Future"

We have not achieved the advancements in robots that were expected by now. Developments started in the early 1900's and accelerated greatly as the century continued, but have slowed down significantly in the 1990's. As a result, researchers have changed their focus of research to functional intelligence. Also, the design philosophies behind robots are inefficient or too forward thinking.

Personal robots currently are prohibitively expensive to make and do not match the ideal robot (humanoid, intelligent robots such as C3PO and Terminators) in the eyes of society. As complex processors are required for even the simplest robots, and there is no widely used open source software, robots are very expensive to make. The capabilities of robots are currently limited as well, they can't walk efficiently or handle many objects or even truly see.

To fix these problems, it is suggested that Hanson Robotics open up a new personal robotics division focused on R&D. This division should look into single-purpose robots and attitudes peoples of different countries hold towards robots, and should look into new ideas about developing human-robot interaction skills and new ideas about guiding design philosophies. Developing single purpose robots will lead to more marketable products and exciting breakthroughs. Robots need to be able to be related to and loved by humanity, and in the US robots are merely used to show off to neighbors. Some researchers have gone back to basics on robot design, focusing on human-robot interaction instead of problem solving. There has been debate over using the Turing Test and Asimov's Three Laws as guiding design philosophies as well. By opening up a new division to work on these problems, Hanson Robotics will survive as a business.

<u>Keywords</u>: robots, personal robots, Turing test, Asimov's Three Laws, function intelligence, humanrobot interaction, single-purpose robots

## **Table of Contents**

Abstract	ii
Executive Summary	
Introduction	
The past of robotics	2
The foundation of the robot	2-3
The old ways are obsolete: the meaning of intelligence and insufficient philosophies	3
Robotics, where are we now?	4
What is a personal robot, and why we haven't achieved the ideal robot	4
The capabilities of robots are limited	4-6
The future, and how Hanson Robotics can be a part of it	6
Opening a personal robotics division	6
The single-purpose robot	6-7
Attitudes towards robots, and how they effect the market	8
Back to basics: Reevaluating the way robots are developed	
Debate over guiding philosophies	
Conclusion	
Works Cited	13