

A SYSTEMATIC INVESTIGATION OF ANATOMICALLY INSPIRED INTUITIVE TELE-ROBOTIC CONTROL

Alexander Wolff

BSc in Cybernetics, js018367@reading.ac.uk

ABSTRACT

This document details the procedure by which an intuitive tele-robotic system was designed, produced and tested. The human neuro-mechanical system is first modelled as a control system block diagram after which it is analysed, a tele-robotic system is then briefly devised. The design, inspired by M. W. Thring's work on telechairs, is then further expanded and explained with emphasis placed on designing an intuitive sensory apparatus. Finally, the system is tested and steps towards further development are discussed.

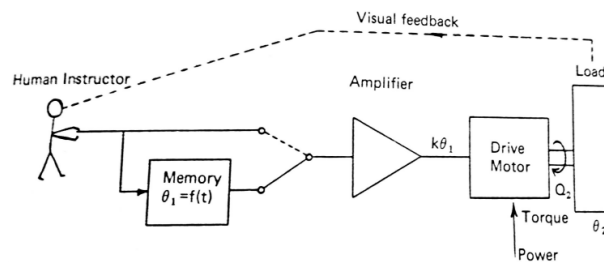


Figure 1. Complete system block diagram. Dashed lines represent non-electronic pathways.

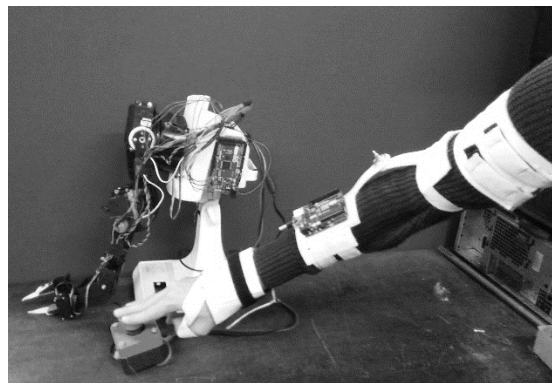


Figure 2. Photograph of the complete system and test setup.

A Wolff, A Systematic Investigation of Anatomically Inspired Intuitive Tele-Robotic Control, *Proc. 13th School Conf. for Annual Research Projects*, V F Ruiz (Ed), pp. xx-yy, University of Reading, 24th May 2016.