

Abstract

Communication is a fundamental part of life and during the 20th century several new ways for communication has been developed and created. From the first telegraph which made it possible to send messages over long distances to radio communication and the telephone. In the last decades, computer to computer communication at high speed has become increasingly important, and so also the need for understanding computer communication. Since data communication today works in speeds that are so high that the human eye cannot by any chance see the signals that are sent it is hard to, on a basic level, show how communication work. Therefore in this project a communication system is made of lasers, photo diodes and Morse code as the encoding. The lasers are used to create a communication link between two computers to visualise how communication work and the Morse code will be used as the language the lasers and the photo diodes use to understand each other. The goal was to create a communication system that allows two way communication and the results which was achieved are a system that allows half-duplex communication. The project resulted in that the hardware and software can be used to show how communication works in a controlled environment.