

Abstract

In this project an individual's control of other projects with a webcam is explored. Previously, one webcam per robot was required in order to activate a robot via internet. However, this project makes it is possible to control multiple robots through the internet with only one webcam, located on a platform, viewing the robots performing their tasks. The webcam allows the individual to visualize what is happening and the network allows the user to control the robots. PBASIC is used to send commands to the platform telling it to rotate (0-360 degrees) and tilt (0-45 degrees). The webcam focuses on the various projects surrounding it. Java is used to activate these projects through the internet. This communication of information is executed through an ethernet board, which is placed in the board of education alongside the webcam. Eight robots were used to test this project by having the webcam rotate to each one and having an internet user activate them. The robots were successfully able to execute the commands given through the internet and be viewed on the computer. This scheme is useful to businesses such as Microsoft or even everyday people by consuming time and money. It also opens up a window to a whole new world of controlling operations through a network. For example, ill or injured individuals could no longer need to depend on others and would be able to retain their independence by using this project to perform everyday tasks through the internet.