

Design and Development of Humanoid Robot to Fight Epidemic like Corona Virus

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Abstract

Around the world, robots are being used to mitigate the outbreak of novel corona virus disease, COVID-19 by taking on food preparation, food serving, cleaning jobs, spraying disinfectant, checking temperature, hand sanitizer dispensing, spreading awareness jobs, etc. that are considered hazardous for human beings. This work will deal with the current and potential applications of humanoid robotics in healthcare settings. The robot will have the characteristics of vision system, manipulation tasks, sensing behaviors, mobile platform, etc. Visual perception is fundamental to most robotics systems working in human environments, it is also essential to a wide variety of tasks such as manipulation, tracking, human-robot interaction. Humans have the ability to move their hands almost 30 DOF. Humanoid robots have to be flexible enough for easy maneuvering. While fixed robots will always find a place in manufacturing, humanoid robots with mobile base promises additional flexibility to end-user in new applications.