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Virtual Reality Glove for Falconry

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Falconry hunting is an Arabic traditional sport and has great significance in Qatari society, as it is a major part of their culture. Falconry is about hunting small birds or animals, by using different types of falcons. The falconry in virtual reality (VR) can preserve Qatari culture by making the sport easy to access for all stream of people. The main idea behind this project is to educate and experience real time falconry to the people living in Qatar and the visitors for 2022 football world cup. The proposed design in our project could also help the professional falconers to use and learn the VR technology that can make them a better handler. Moreover, The rapid development in technologies related to Virtual Reality has made imitation of real world in real time equally possible. The VR environment is possible to be integrated with software mediums such as Unity3D, but to realize the real time feel, weight, pressure, movement, and vibration of any kind in the VR is hard and still under process. There are also various new technologies in this field such as haptics, but these technologies are expensive and there is no definite hardware that actually mimics movement of the falcon when it stands on the hand The main hardware design is a glove that can be detected virtually and can detect movement of different types of falcon on the player's hand. The designs proposed in our project will have extensive real time feel of the falcon on the user's hand using various available hardware components, which are cheap and easy to maintain. The design of our gloves paves way to further enhancement of movement realization in VR for other form of sports, medicine etc., The major requirements for the game of falconry where obtained from Qatari Society of Al-Gannas with whom we have collaboration for this project.

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