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Quantum3: Learning Quantum Chromodynamics through Intuitive Play

There is a nationwide drive to get more girls into physics and coding, and some educators believe gaming could be a way to get girls interested in coding and STEM topics. This project, sponsored by NSF, is to create a Quantum Chromodynamics (QCD) game that will raise public interest in QCD, especially among K-12 girls, and increase interest in coding among girls. Through the immersive framework of interactive gameplay, this QCD phone game will allow the public to peek into the QCD research world. The game design will fall into the "Match 3" genre, which typically attracts a higher ratio of female players. The game will be implemented initially as a phone app, and the gameplay would require learning simple QCD rules to progress. By leveraging the willingness of players to engage with the rules of an entertaining game, they are able to easily learn a few principles of physics.

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