

Honors Research Project Proposal


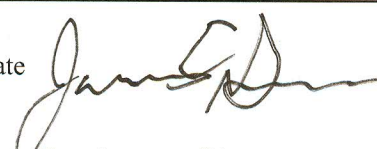


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Title of Proposed Project: Magic: The Gathering Card Virtualizer	
Major: Electrical and Computer Engineering	Graduation (semester/year): Spring 2022

Please include a brief (maximum 200 words) summary of your proposed project

Any well-versed Magic: The Gathering (MTG) player or collector knows how difficult it can be to keep track of all cards in their collection. Some spend hours searching for that one specific card, and others are constantly scouring the internet for how much their collection costs. However, this issue does not only affect casual fans. Resale companies spend hours a day determining the costs of cards, and tournament judges painstakingly check players' decks to ensure they are not cheating. To assist with these struggles, the design team proposed to create the MTG Card Virtualizer. This device scans MTG playing cards and virtualizes them into a smart database. Using this smart database, players, collectors, and even resale companies can easily search through their extensive collections and check the market value of their cards. Users can insert up to seventy-five MTG cards and quickly virtualize a full deck in under five minutes. The proposed design utilizes the Nvidia Jetson Nano and a custom-designed circuit board, paired with a SQL database and a user-friendly application to virtualize entire collections. Not only are all of the user's cards in one location, but they can search for cards, determine the cost of their collection, and find out if their decks are tournament legal.

Approval:

Honors Course No.: 4400 402	No. of Project Credits: 6
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Your approved cover sheet and proposal must be [submitted to the Williams Honors College through IdeaExchange](#)