Gesture and Chill: An automated system to watch your favorite Movies

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Abstract

With the imminent decline on movie theater attendance, and consequentially growth of the streaming industry; a new public has emerged. We present in this effort to improve the experience of a home stream significantly. Gesture and Chill is a "remote control" in a box that will control different parts of this experience: from controlling the playback of a given media, to lightning control on your environment.

Author Keywords

Authors' choice; of terms; separated; by semicolons; include commas, within terms only; required.

ACM Classification Keywords

H.5.m [Information interfaces and presentation (e.g., HCI)]: Miscellaneous; See [http://acm.org/about/class/1998/]: for full list of ACM classifiers. This section is required.

Introduction

Cinema is dying. Sadly. There has been indications that streaming services, like Netflix, are slowly but surely diminishing attendance to the big screen, reaching its lowest level since 1995 [2]. To this growth of the streaming industry we also add other not so legitimate methods: piracy. In 2007, it was revealed that US studios lost approximately \$3 billion on annual revenue from piracy.

All this means that more and more people are choosing stay-at-home movies over the traditional experience, thus we should start focusing on how to improve this experience for this growing audience. We present Gesture and Chill, an automated all-around system to improve the streaming experience of its users. Our system consists of an array of RFID-enabled, magnetic tokens for the user to perform playback gestures with; and an illumination control plug to connect your lightning solutions to. This system is capable of media related tasks from playback control to illumination management.

The rest of this document is organized as follows: related work on this topic, a detailed technical description of our system and lastly our conclusions with our experience gained.

Related Work

We can find different efforts to improve the "living room" experience. Starting with Netflix's own "Netflix Switch" [3]. This gadget is able to control your TV, lighting and multiple other features to improve your experience. One interesting fact about this effort is that it documents perfectly the process of building one of these devices, in case anybody would like to incorporate this to their setup. However, limiting the user on the type of lightning that can be used with this setup seems like a big drawback.

Continuing, Jeong et al. presented us with a gesture-based remote control for our TV [1]. In this very interesting effort, the authors presents us with a motion-based gesture tracking to control our TVs. With activities focused on navigation and volume control, their system is able to recognize gestures made by the users and act accordingly. This research, while very interesting, seems like a whole lot of effort to set up. Waving our hands back and forth to select the movie

we'd like to see should not be the way to achieve this task.

These issues detected on these approaches are tackled head-on by our system. We approached these faults by presenting the user with a standard power cable to connect any kind of illumination system, and an RFID-enabled tags to identify each movie.

System Description

As mentioned beforehand, we're presenting an automated system to control the factors involved in a good moviewatching experience. This device will be responsible of controlling the illumination of the area used for this task, as well as the playback of the selected media.

Approach
Implementation
Challenges
Success & Failures

REFERENCES

- Soonmook Jeong, Taehoun Song, Keyho Kwon, and Jae Wook Jeon. 2012. TV Remote Control Using Human Hand Motion Based on Optical Flow System. In Computational Science and Its Applications – ICCSA 2012. Springer Berlin Heidelberg, Berlin, Heidelberg, 311–323.
- 2. Tero Kuittinen. 2015. Netflix is starting to wound the movie industry where it hurts most. (Jan. 2015).
- Netflix, Inc. 2015. The Netflix Switch. (Sept. 2015). http://makeit.netflix.com/the-switch