Pet Peeves

School Shootings, TV Remotes, and Dying Plants

Pocket

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School Shootings

I get more and more angry at our government every time a more drastic school shooting occurs and the people in charge don't make any changes to legislation. I propose building a simple model of a new system to alert and bring to the attention of policy makers the issue of mass shootings. The basic concept is to have an arduino node with a camera and some type of basic computer vision recognition model that can detect the presense of a gun. This would then send a message to a different arduino node that lives in congress in view of all of the US senate which would have a solenoid that can trigger an air horn and flash lights when triggered. This would bring make the senators the first to be alerted about the threat of a shooting and remind them that the issue exists and should have focus dedicated to it. Making this is going to involve setting up a camera with either a Chromebook or an esp32 that can detect the presence of a firearm and then communicate wirelessly either using WiFi or radio to a different arduino that will sound an alarm and make lights flash to illuminate a sign reading "What are you going to do about this

one?". A more long term plan for this project is to create an entire decentralyzed security system that uses very cheap nodes and is made open source so that schools could get access to ai enabled video security at a very low cost while reducing ewaste by upcycling old chromebooks as compute nodes that the same schools are discarding.

 (https://pirg.org/edfund/articles/why-parents-teachers-and-school-districts-are-fed-up-with-their-chromebooks/)

TV Remote

I lost a TV remote to a samsung smartish TV that is connected to the wifi, so I am able to use the open source project samsungctl (https://github.com/Ape/samsungctl) running on my laptop to switch inputs. I would rather have a physical remote with buttons that can be used to control the TV instead of having to open up a laptop and typing cli commands. Fixing this pet peeve could be done in 2 ways: by reverse engineering the samsung infrared signals that are sent by an IR blaster from arduino, or by mimicing the same kind of packets sent by the open source library over wifi with an esp32. I would make a couple of physical buttons to connect to either the arduino or the esp32 and then depending on the technology used, send the wifi commands or ir signal. The goal would be to build this for a budget of ~$10 because the universal remote costs $40 at bestbuy.

(https://www.bestbuy.com/site/insignia-replacement-remote-for-samsung-tvs-black/6448217.p?skuId=6448217)

Dying Plants

I have a dream of being able to grow piennolo del vesuvio tomatoes. I may or may not have ordered seeds for these amazing tomatoes that are world renowned for their flavor and natural ability for self preservation, and these seeds may or may not have had a very high cost due to it possibly having to have been purchased on a black market because importing the plant into the US would be illegal. These tomatoes grow in the fertile acidic soil around Naples from the volcano Mount Vesuvious and an amazing property of these tomatoes is that they can be picked in one season, left on a room temperature shelf for over 6 months, and they will not shrivel or dry or shrink, they will naturally stay perfectly preserved. These tomatoes also amusingly all have nipples on them. Chefs prefer using this type of tomato for its consistent availability year round and high quality. I may or may not have made multiple attempts to grow this particular tomato in a completely different climate in colorado without success. I need to have the correct humidity, type of soil, and temperature to ensure its success which will require making an

enclosed terrarium with clocks and sensors controlling and regulating temperature, humidity, light, and pumped water. This could all be accomplished using arduino, soil sensors, humidity and temperature sensors, an oven heating element, a water atomizer, grow lights, relays, and some buck-boost voltage regulators. A more long term project that could evolve from this is adding a raspberry pi and a camera to monitor how well the plants do so that experiments can be made to determine more efficient ways to grow the tomatoes.

(https://heritageseedmarket.com/index.php/product/piennolo-del-vesuvio-regular-leaf/)