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SPY CAMERA ON STREET LIGHT

PRABHA R[1], MURALIDHAR N[2], PRITHIV RAJ K[3], SANTHANAM KARUPPASAMY B[4],SAM GABRIEL P S[5] PROFESSOR[1],[1,2,3,4,5]ELECTRONICS AND COMMUNICATION ENGINEERING,[1,2,3,45,] SNS COLLEGE OF TECHNOLOGY, COIMBATORE, TAMILNADU, INDIA.

Abstract - ***Entire cities are canvassed with covert streetlight cams. They can rotate and move as well, under direction from an operator at the designated fusion center for your region as well as your city's emergency operations center, usually located deep within city hall. The lights, and I mean basically All of them in the city, also now have variable brightness, also controlled in real time by said operators.***

INTRODUCTION

Spy camera implementing in street lights is a new and emerging idea that is established in several countries and cities but it is still not widespread. It's because many people don't know about the existence of this idea and even some people have some knowledge about it they won't come forward to know about what it is exactly and further steps to enhance it. But we have stepped forward to a very useful idea that can be implemented all over in the Indian cities with proper planning and execution. The spy camera which is very minimal in size is placed in the street light that is used to monitor a particular place. This technology results in many advantages like, Misleaders don't have knowledge on spy camera fixed in street lights, the street lights are powered by solar energy, and in night the light from street light is much enough for spy camera for visibility and at daytime it uses sunlight for visibility, cost efficient project for a developing society like India, no maintenance required, and finally there is no extra power consumed by street lights for light source.

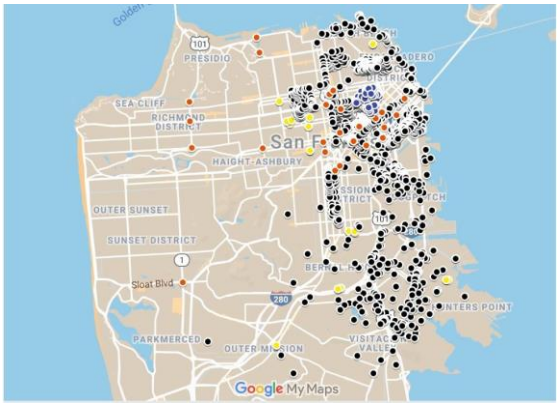
1. IDEATE

Since, the spy camera is so small that can be easily placed inside a street light. The light needed for the camera's vision is provided by the light source from street light, so any external component is not required for vision ability. The camera's back is fixed with some sort of sticky materials and here the camera used one is a Bluetooth capability and doesn't required any wired connections (every sort of communication is done wirelessly). With the help of wifi-module the actions recorded by camera are transmitted to the receiver end.

2. PROTOTYPE

Surveillance cameras are one of the most ubiquitous and recognizable technologies used to watch us as we move about our daily lives. Networks of cameras are installed by government agencies and by local

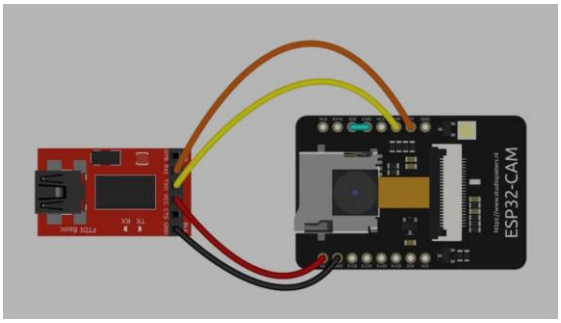
businesses, but the distinction blurs with the development of real-time crime centers that access both public and private video feeds.



Camera technology is growing in sophistication: some cameras are capable of 360- degree video or infrared vision. Some models can be equipped with realtime face recognition or license plate recognition software. Since many are also being connected directly to the Internet, the camera networks have also proven easy targets for malicious attackers

3. TESTING

The Esp32-Cam is a cheap, 2-megapixel, small-size camera module developed by AI-Thinker. It integrates an Esp32, a single 2.4 GHz Wi-Fi-and Bluetooth SoC (System On a Chip) designed by Espressif Systems, and an OV2640 camera from OmniVision. The simplest way to start programming this little board is to use the Arduino Esp32 toolchain in the Arduino IDE (Integrated Development Environment), an application developed by Espressif that's used to write and upload code (programs) to Arduino-compatible boards.



The Arduino IDE uses a stripped-down and simplified version of the programming language C++. Beginners can start with examples and tutorials, but more advanced programmers can create their own libraries and use a CLI (Command Line Interface) application. With Arduino, your program is called a "sketch", and when you compile it, it's "magically" debugged, translated into proper C++, and sent to your board in binary form (machine language). If you encounter errors while compiling, the Arduino IDE itself gives you suggestions to find your mistake. Quite often, especially for new users, it's a syntax error. One of the most frequent errors is to forget to add a semicolon to the end of a line. You can learn more about Arduino IDE 2 version 1, Arduino IDE version 2, Arduino Web Editor, and Arduino PRO CLI from the Arduino website. There are different ways to connect your Esp32-Cam and Arduino IDE (running on your computer), both physical and remote. Next, we'll go over five different physical ways to make the connection, then we'll see how to work your Esp32-Cam and Arduino IDE, and finally, we'll look at the alternative: connecting things remotely.

4. REFERENCES

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