

Owl Security Camera using Arduino and IOT

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item will just move on. Cameras are also great forensically, as they can often give enough information about a perpetrator to track them down, even though that process may take days or even months, and there's no guarantee that finding the perpetrator will mean finding any stolen goods.

Keywords -Security camera system with privacy protection; questionnaires.

INTRODUCTION

The Owl Cam is a dash cam and security device that pairs with your smartphone. Video clips are stored on your phone, so no memory card is required, and you don't run the risk of losing your clips if the camera is stolen. It has some cool features like two-way talk, an inside camera, and remote camera access. If you don't state a title, it's labeled "unknown." One of the coolest features is that you can remotely monitor using your smartphone. Getting it to work correctly took a few tries, but eventually worked reliably. The camera's 64GB of memory stores up to 18 hours of footage. The Owl Cam is designed to be at all times and won't drain the battery. If someone steals the device, you'll have a picture of the thief for police and Owl will replace your camera at their discretion for up to three years after purchase. The five standard functions wireless security cameras introduce to home security systems. Those are:

- motion detection
- wireless technology
- scheduled recording
- remote viewing
- automatic cloud storage

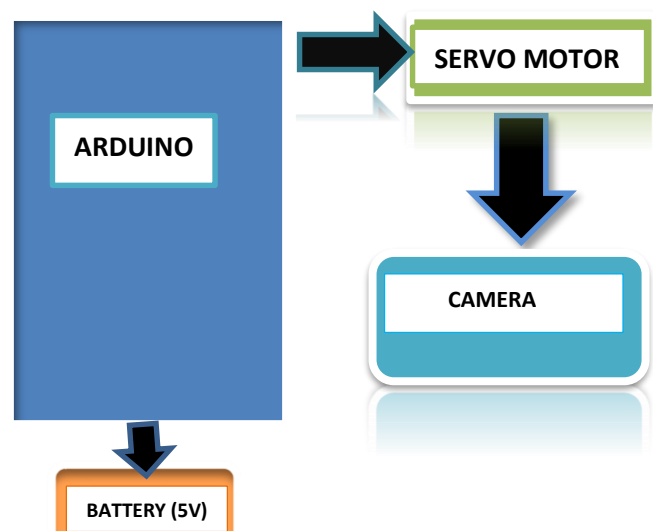
COMPONENTS AND SOFTWARE USED

Arduino UNO, Servo motor, arduino camera, jumper wires, battery.

Abstract - With the advancement of technology and more dependency of people on smart phone and increasing demands of easy and quick way of solving Daily life task, it has become very important to have a technology which can control over the domestic and industrial applications using IOT. Our paper 'Sensing and controlling the world around using Arduino and IOT' deals with embedded technologies along with internet of things (IOT) using Arduino which employs the embedded block and script programming for Arduino like servo motor, action camera, jumper wires.

In this paper we present a home automation and home security technique. The idea is simple—a criminal sees the not-so-discreetly placed camera and has to decide if they'd rather try to figure out a way to break into this place without being caught on this camera or whatever other cameras are on the property (it's almost always more than one), or just move on to the next softest target. An opportunistic criminal not targeting a specific house or

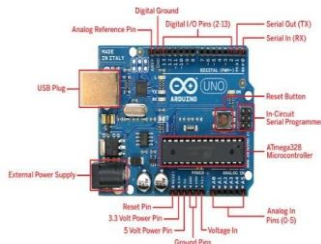
BLOCK DAIGRAM



SPECIFICATIONS OF COMPONENTS:

- **Arduino UNO Board-**

The Arduino expansion was emerged in ITALY to build up low cost hardware for communicating design. This Arduino UNO is an excellent choice for any IOT applications design and, one can expect and carve programs according to the needs. The Arduino UNO board acts as a control unit in this experiment.



- **Arduino Camera-**

The **OV7670 camera** module is a low cost 0.3 mega pixel CMOS color camera module, it can output 640x480 VGA resolution image at 30fps. The **OV7670 camera** module build in onboard LDO regulator only single 3.3V power needed and can be used in **Arduino**, **STM32**, **Chipkit**, **ARM**, **DSP**, **FPGA** and etc.



- **Jumper wires-**

A jump wire (also known as jumper wire, or jumper) is an electrical wire, or group of them in a cable, with a connector or pin at each end (or sometimes without them – simply "tinned"), which is normally used to interconnect the components of a breadboard or other prototype or test circuit, internally or with other.

- **Battery-**

Batteries are a collection of one or more cells whose chemical reactions create a flow of electrons in a

circuit. When the material in the cathode or anode is consumed or no longer able to be used in the reaction, the **battery** is unable to produce electricity. At that point, your **battery** is dead



CONCLUSION

The IOT facilitates numerous benefits to the society and from our paper we can provide and prove the strength of IOT that is capable to contribute the services for the purpose of building vast no. of applications and help to implement them on the public platform. This design provides moderate and less expensive way of sensing, monitoring and controlling system in the field of domestic and as well as industrial standard to implement IOT.

At a final note, we conclude that IOT leads to become universal in every aspect. This paper will be very beneficial in our normal day to day life and will bring much needed innovation in his fast changing world of technology where people prefer to have control over things using the smartphones which will bring ease to their routine life.

SCOPE OF THE EXPERIMENT

AIM- Owl Security Camera Using Arduino

MATERIAL REQUIRED- Arduino, camera, jumper wire, battery, servo motor.

THEORY-

```
#include <Servo.h>
```

```
Servo myservo; // create servo object to control a servo
```

// twelve servo objects can be created on most boards

int pos = 0; // variable to store the servo position

void setup() {

myservo.attach(9); // attaches the servo on pin 9 to the servo object

}

void loop() {

for (pos = 0; pos <= 180; pos += 1) { // goes from 0 degrees to 180 degrees

// in steps of 1 degree

myservo.write(pos); // tell servo to go to position in variable 'pos'

delay(15); // waits 15ms for the servo to reach the position

}

for (pos = 180; pos >= 0; pos -= 1) { // goes from 180 degrees to 0 degrees

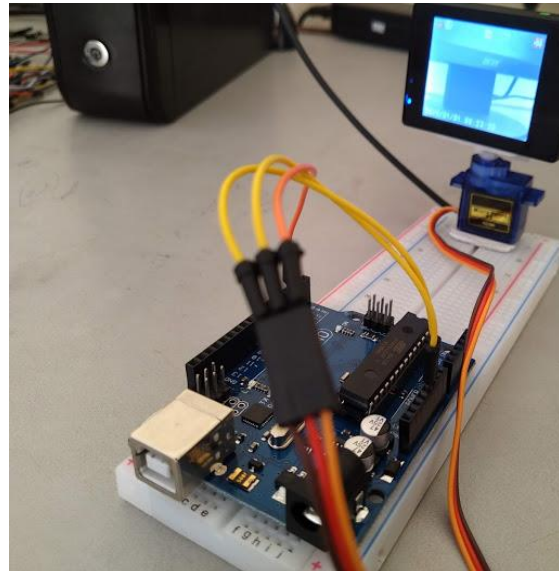
myservo.write(pos); // tell servo to go to position in variable 'pos'

delay(15); // waits 15ms for the servo to reach the position

}

}

RESULT- Hence successfully studied this project.



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