禪

[illegible]

[illegible]

[illegible]

[illegible] LED [illegible] (side-channel) [illegible]

[illegible]

[illegible]

[illegible] 8 [illegible]

[illegible] LED [illegible] xLED [illegible] LED [illegible]

Algorithm 1 ModulateOOK

```
procedure ModulateOOK(nLED, data, T)
    openLED(nLED); //opens the LED file for writing
    while(data[i] !=0)
        if(data[i] == ‘0’) //modulate 0 by turning the LED off
            setLEDOff(nLED);
        if(data[i] == ‘1’) //modulate 1 by turning the LED on
            setLEDOn(nLED);
        i++;
        sleep(T); // sleep for time period of T
    closeLED(nLED); // closes the LED file descriptor
```

[illegible]

```
// Method #1

// turn the LED on

echo 0 > /sys/class/leds/led_name/brightness

// turn the LED off

echo 255 > /sys/class/leds/led_name/brightness

// Method #2
```

```
3: echo 1 > /proc/gpio/X_out // turn the LED on

4: echo 0 > /proc/gpio/X_out // turn LED off
```

[illegible]

[illegible] GoPro Hero5 [illegible] 960 [illegible] 120 [illegible] 3.5 [illegible]

:[illegible]
[illegible]
:[illegible]
[illegible]
:[illegible]
21:50 - 20/03/1396
:[illegible]
[illegible]

[illegible]
:[illegible] https://www.shabakeh-mag.com/security/8150/%DA%86%D8%B1%D8%A7%D8%BA%E2%80%8C%D9%87%D8%A7%DB%8C-%D8%B1%D9%88%D8%AA%D8%B1%D9%87%D8%A7-%D8%A7%D8%B7%D9%84%D8%A7%D8%B9%D8%A7%D8%AA-%D9%85%D9%87%D9%85%DB%8C-%D8%B1%D8%A7-%D9%81%D8%A7%D8%B4-%D9%85%DB%8C%E2%80%8C%DA%A9%D9%86%D9%86%D8%AF