



# Grove - Serial Camera Kit

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Version : 1.0

Wiki: [http://www.seeedstudio.com/wiki/Grove - Serial Camera Kit](http://www.seeedstudio.com/wiki/Grove_-_Serial_Camera_Kit)

Bazaar: <http://www.seeedstudio.com/depot/Grove-SPDT-Relay30A-p-1473.html>

## Document Revision History

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Revision	Date	Author	Description
1.0	Sep 21, 2015	Victor.He	Create file

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*Under the supervision of Seeed Technology Inc., this manual has been compiled and published which covered the latest product description and specification. The content of this manual is subject to change without notice.*

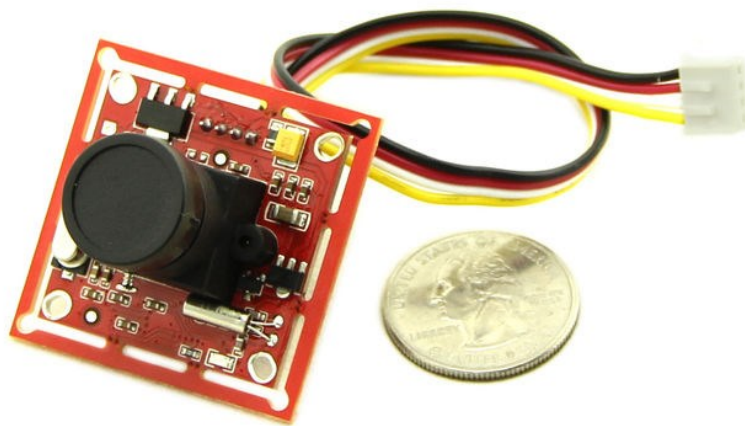
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## 1. Introduction

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Grove - Serial Camera Kit includes one control board and two interchangeable lenses, one is standard lens and the other is wide-angle lens. It's a great camera for Arduino centered image recognition projects, because 30W pixel wouldn't be overwhelming for Arduino, so that real-time image recognition is possible. To make it more fun and playable, lenses of two specs are shipped in this kit. The standard one is for common photo shots and the wide-angle one is especially suitable for monitoring projects.



## 2. Specifications

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Input Voltage	5V
Pixel	300,000
Resolution	640*480, 320*240, 160*120
Uart Baud Rate	9600~115200
Communication	RS485 and RS232
Photo JPEG compression, high, medium and low grades Optional	
AGC	
Auto Exposure Event Control	
Automatic White Balance Control	
Focus adjustable	

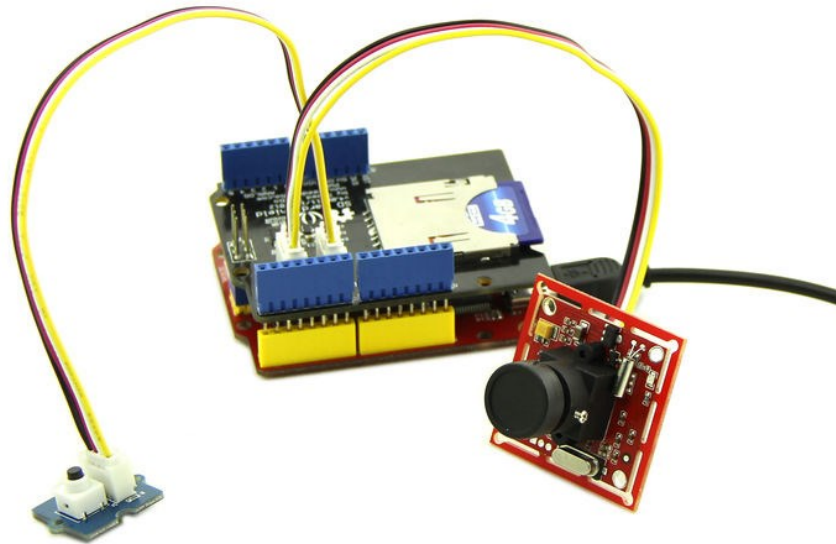
## 3. Demonstration

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This demo will show you how to use Grove - Serial Camera Kit. We need a [Seeeduino](#), an [SD Card Shield](#) and a [Grove - Button](#). When the button pressed, we take a photo and save it to SD Card. Follow the below steps step by step, you can easily run your Grove - Serial Camera Kit. Then let's go.

### 3.1 Hardware Installation

We can find that there are two Grove interfaces on SD Card Shield V4.0, so we needn't a Base Shield, just plug Button to I2C Grove and plug Camera to Uart Grove.



### 3.2 Download Code and Upload

You can download demo code in github, click [here](#)

Then upload the code, and it works.

### 3.3 Take a Photo

After finish uploading demo code, we can take a photo now, just press the button, then wait for a few seconds, a photo will be saved to SD card.

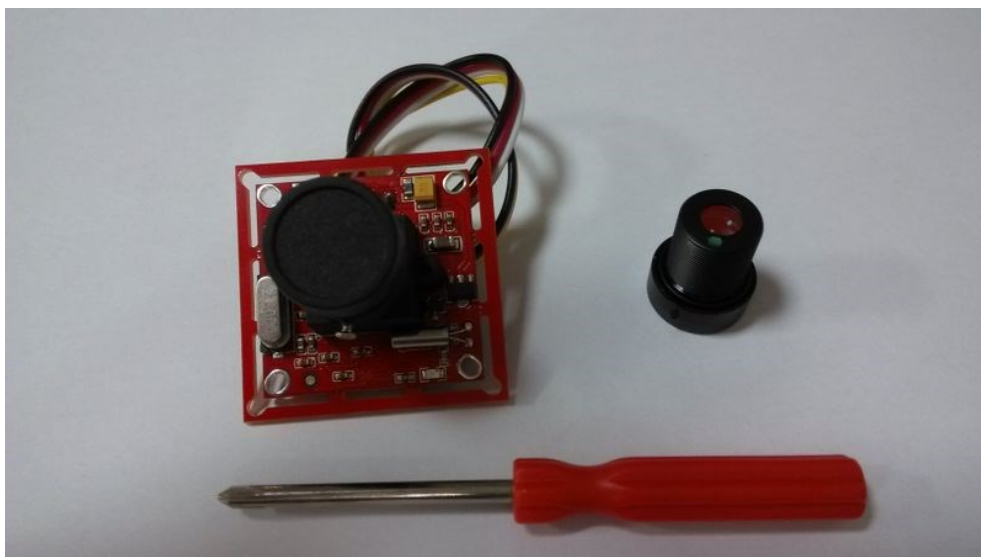
The following image is the ceiling of my office use straight angle lens.



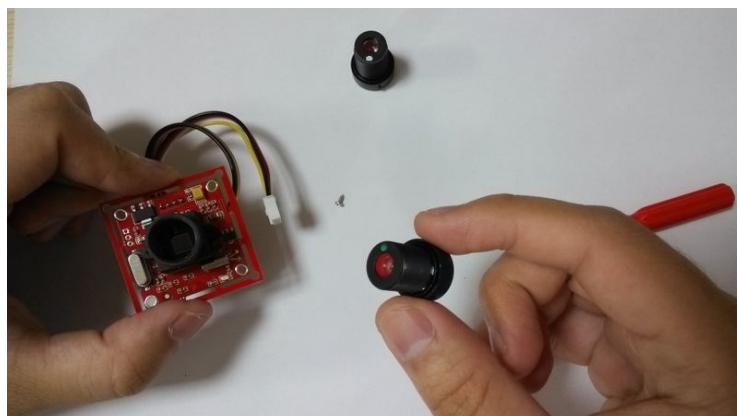
### 3.4 Replacing a Lens

There is another wide-angle lens, I will show you how to replace it.

Firstly you should have a screwdriver :



Then, unscrew the screws on the side of lens:





We use the wide-angle lens to take a photo, also, it's the ceiling of my office!

Find anything different from the ceiling image previous?



### 3.5 How to Focus

Lens screwed different depths represent different focal length, you can have a try.

## 4. Resources

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[Demo Code](#)



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