Weatherproof TTL Serial JPEG Camera with NTSC Video and IR LEDs

PRODUCT ID: 613

Description

This weatherproof camera module is a classy upgrade to the basic camera module we already stock in the shop. The main differences is that this one comes in a nice metal case with a mounting hinge, a 1 meter long cable with the TTL & NTSC signals brought out, and it has an automatic IR LED system for night time photos. When the onboard photo-cell detects that it is too dark for the camera to take a photo, it turns on a ring of 12 IR LEDs that illuminate the nearby area for night-vision shots.

This camera was designed to be used in security systems and does two main things - it outputs NTSC video and can take snapshots of that video and transmit them over the TTL serial link. You can snap pictures at 640x480, 320x240 or 160x120 and they're pre-compressed JPEG images which makes them nice and small and easy to store on an SD card. Perfect for a data-logging, security, or photography project.

One nice thing about this particular camera is all the 'extras' that come with it. For example it has

manually adjustable focus, auto-white-balance, auto-brightness and **auto-contrast** taken care of for you as well as **motion detection** built in! That means you can have it alert your project when something moved in the frame.

Using the module is pretty easy and only requires two digital pins (or a TTL serial port) - by default it transmits at 38400 baud. Of course we wouldn't just leave you with a datasheet and a 'good luck', we even spent a lot of time researching the module and DSP to make a really nice Arduino library with example code that shows how to change the image size and compression quality, detect motion, control the video output stream, etc. We also have a very detailed tutorial that will help get the most use out of your camera.

Example photo 1 (outside street) & example photo 2 (inside person)

Note: We have these working great with classic Arduino UNOs (and other Atmega328-based 'duinos) but they are not yet MEGA compatible.

Technical Details

- o Metal Housing size: 2" x 2" x 2.5"
- o Weight: 150 grams
- o Image sensor: CMOS 1/4 inch
- o CMOS Pixels: 30M
- o Pixel size: 5.6um*5.6um
- o Output format: Standard JPEG/M-JPEG
- o White balance: Automatic
- o Exposure: Automatic
- o Gain: Automatic
- o Shutter: Electronic rolling shutter
- o SNR: 45DB
- o Dynamic Range: 60DB
- o Max analog gain: 16DB
- o Frame speed: 640*480 30fps
- o Scan mode: Progressive scan
- o Viewing angle: 60 degrees
- o Monitoring distance: 10 meters, maximum 15meters (adjustable)
- o Image size: VGA（640*480), QVGA（320*240), QQVGA（160*120）
- o Baud rate: Default 38400, Maximum 115200
- o Current draw: 75mA without IR LEDs on. 250mA extra for IR LEDs
- o Operating voltage: DC +5V
- o Communication: 3.3V TTL （Three wire TX, RX, GND）