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## Off the shelf solution to timelapse on ANY camera, Nikon D70

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### Off the shelf solution to timelapse on ANY camera, Nikon D70

Author	Message
<p><b>comedyhunter</b></p>  <p>Joined: Wed May 21, 2008 3:34 am Posts: 45</p>	<p><b>Off the shelf solution to timelapse on ANY camera, Nikon D70</b></p> <p>Off the shelf solution to time-lapse on ANY camera that has Infrared control. I designed this for my Nikon D70 but it WILL work on any camera (just substitute your own remote).</p> <p>Here is the adapted Intervalometer with my Nikon D70:</p> 

This is a long post because I have tried to include as much information as possible to make it easy to follow so you can adapt it for your own use.

**Specifications for the rig are:**

Compatible with Nikon D70 and D80 (or ANY camera with an Infrared remote)  
Intervals of 3 seconds to 15 Minutes in one second increments.

I thought I would share this with everyone as this is something that could be of use to lots of people. Here is an almost off the shelf solution to controlling ANY camera that has an Infra red control. This idea came about completely by accident but it should help out anyone that wants to get into time-lapse.

**How my idea came about :**

I have several digital Point-and-shoot cameras all with time-lapse functionality but I wanted to use my Nikon D70 (DSLR) for time-lapse. I had a look on ebay to see if I could find a suitable intervalometer and was pleased to find one straight away so I ordered it, it arrived I came to connect it and found that there was no socket to plug it into. My initial thoughts were that they had sent the wrong item so checked again, at which point I noticed that the item description was "Phottix Timer Remote N2 for Nikon D70s and D80". Then it dawned on me that perhaps there was a model called a D70S, sure enough I discovered that yes there was a D70S model which has an additional socket on it for remote shutter! The moral here is always read the ebay description fully before ordering!

Obviously I was a bit annoyed that I had bought this thing and that was of no use to me but as you will soon read, I

software/intervalometer etc.

### Fundamentals of operation

In order to understand what we need to do to get this to work you need to understand the basics of remote shutter operation. You probably know this anyway but it will make it clearer to you what you are trying to achieve. The shutter button on your camera is a push switch that "shorts out" two connections when you press it fully down. The shutter button also has another pair of connections that short out when its pressed half way down, this is for the focus. An intervalometer that you physically connect to your camera simulates the shorting out of shutter release connections thus taking a photograph.

If you use an Infrared remote control to take a photograph, the remotes shutter release button is also a push button that shorts out two connections which then cause a infrared signal to be emitted.

As you may have now realised, why can't we use the Intervalometer to simulate pressing the Infrared remote shutter button? Well the simple answer is yes you can and that was the "Eureka moment" that led to this design.

If you open up an infrared remote control then get the "shutter release" wires from Intervalometer and solder them across the contacts of the push switch on the Infrared remote then this will work. All you need is the Intervalometer as I have detailed here and an Infrared remote control for your camera. Ebay is a great place to get a remote control from and they will be considerably cheaper than buying a brand new one.

I managed to get an unbranded D70 remote for just £2.99 (including postage and packing!)

The photos relate to a Nikon D70 remote, obviously if you are using this with a different camera then you will need to buy a IR remote for your camera instead and solder the two wires onto the shutter pads.

### My solution to using this Intervalometer with the Nikon D70

You will need a **Phottix Timer Remote N2** and an Infrared remote control.

This will require you to know how to use wire strippers and basic tools and to be able to solder two wires onto a PCB. Don't worry there are no high voltages involved and because its not connected to your camera, you can't damage anything.

Find one right now.....

[Click here to search ebay UK for this Intervalometer](#)

Here is the Phottix Timer Remote N2 and a close view of the plug it comes with:



### Instructions

n.b. if you can't solder two wires then read "alternative connections method"

- 1) On the Intervalometer cut the plug off near the plug end.
- 2) Strip the black outer cable with a sharp knife to reveal the three wires
- 3) Cut the yellow wire off as this is not needed
- 4) Strip a short bit off the red and white wires and tin them so they are ready to be soldered in place.
- 5) Slide the battery out of the remote control, Peel off the self adhesive cover from the remote control to reveal the circuit board.
- 6) Unscrew the 3 screws securing the PCB in place, you can now lift it out of the back case.
- 7) Using a small sharp screwdriver scrape the black covering off the tracks as per the photo. You will not be able to solder to the pads unless you scrape them clean down to the shiny copper. Once you have cleaned them, tin the two pads.
- 8) Now solder the red and white wires from the intervalometer to the pads as per my photograph. n.b. it does not matter which wire goes to which pad.

### Photographs of each stage :

Img1) This is the unbranded Nikon D70 Infrared remote I bought from ebay for £2.99!

Img2) Shows the sticky front label being peeled off to reveal the circuit.

Img3) Shows the Infrared remote with the circuit board revealed.

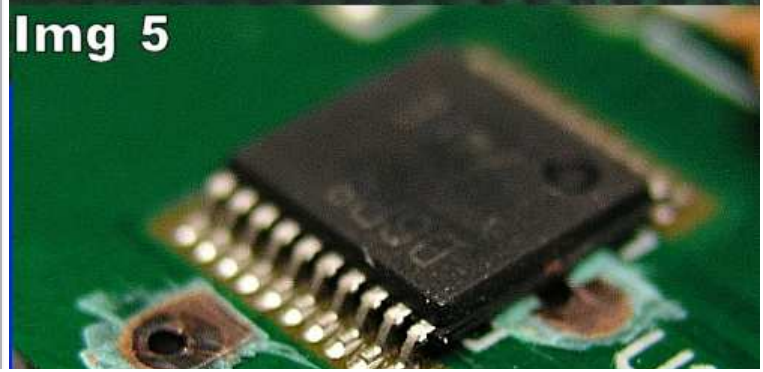
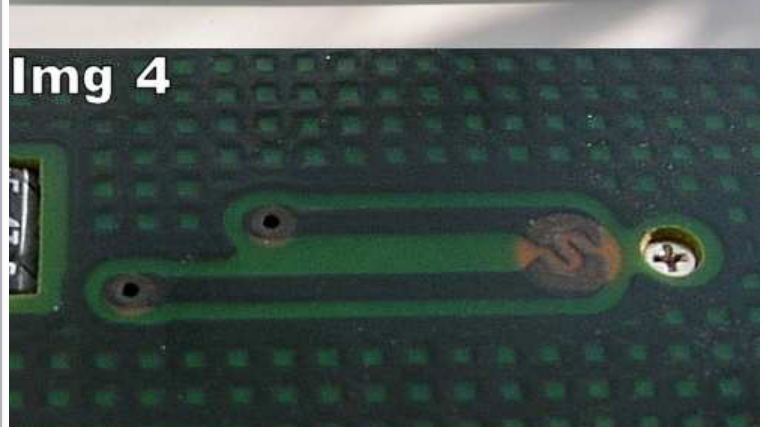
Img4) Shows a close up of the two pads and tracks that we need to connect to.

Img5) Shows the reverse side of the circuit and the pads that have been scratched clean ready for soldering.

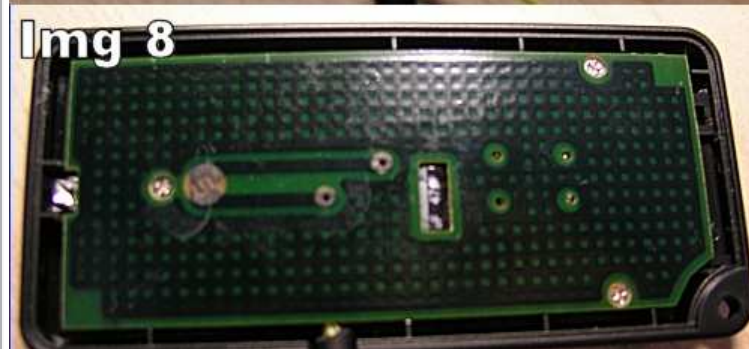
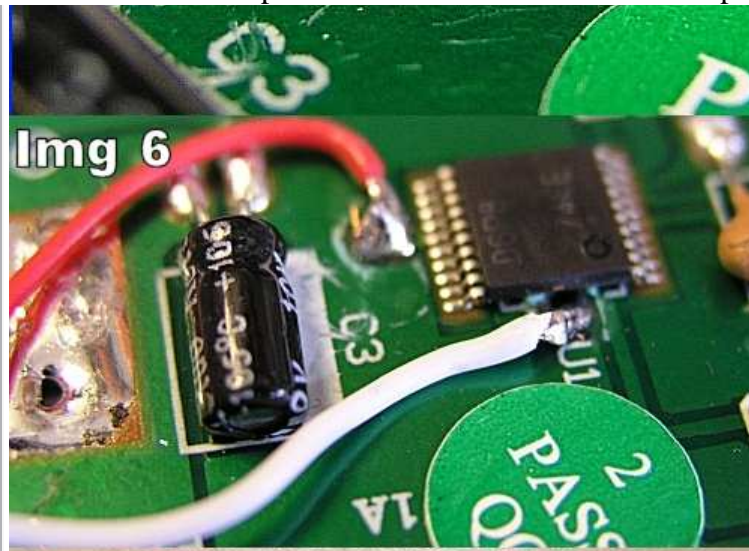
Img6) Shows the red and white wires from the Intervalometer soldered onto the two pads.

Img7) Shows the full circuit and where the wires run.

Img8) Shows the circuit board screwed back in place with a slot cut on bottom for the cable to run through.







**Alternative connection method**

If you can't solder wires and don't know anyone that can do it for you then I have another option that anyone can do. You will need to buy some "Electrically Conductive Silver Paint", this is very conductive paint that comes in a very small bottle and is used for repairing demisters on car rear windows, it costs around £5 for a tiny bottle. To use this you will need to expose the surface switch contacts (as above) and fix the wires with glue so that the bare wire ends are placed over the pads.

Then apply a blob of the conductive paint to each contact and allow to dry.

Setting up my rig for time-lapse :

Screenshots of the Nikon D70 LCD and the Photix LCD :



**On the Nikon D70**

1) On the D70 press and hold the "Motor Drive button" (The first button to the left of the viewfinder on the back of the D70) and use the "Rear Command Dial" to select the "timed remote mode" (see image). N.b. If you select "Quick response mode" rather than "Timed Remote mode" then you may get multiple shots for each shutter press. I have found the delayed remote mode gives perfect reliable results.

2) Press the Menu button, and move down to "CSM Menu" (pencil icon) move down to "25 Remote" This lets you set the remote timeout to 1, 5, 10, or 15 minutes. What this means it that the camera will come out of remote mode if it does not receive a Infrared pulse within that time. So obviously if you are intending to take a photograph once every 11 minutes then do not set this value to 1, 5 or 10 as it will time out before its had chance to take the 2nd frame in your sequence.

If you really need longer durations than 15 mins then I guess you could just over-capture and then cull the unwanted frames (i.e. use one frame in every 4 if you want intervals of 1 hour.)

**On the Phottix unit**

1) The LCD menu system is nice and easy to use which makes setting up very quick. Above the display are titles Delay/Long/Intvl/N/d below these is a line that you can move left/right using the cursor pad. When you press the Set button it means you can use the cursor pad to set values.

**Descriptions for each of the 5 options.**

- DELAY - This is how long to wait until the first capture. Set to 00:00'00
- LONG - This is the exposure time. This only works when physically wired to a camera, as we have used the remote this setting needs to be set to 00:00'01"
- INTVL - This is the Interval time, in other words how long between successive shots. This can be anything between 3 seconds to 15 minutes. Note the 3 second limit is because it takes 2 seconds for the "timed remote" to trigger and allows a bit of time to focus and shoot and store the photo on the memory card. Obviously if you are doing long night-time exposures of several seconds then you will need to add this into the equation.
- The upper limit is 00:14'59", this is because that's the maximum length of Infrared inactivity that is allowed before the D70 will cancel remote mode.
- N - This is how many frames to take. You can set this anything up to 399 shots or better still set to infinity, shows as - on the screen.
- d- This is the beeper on/off. Set to off unless you really want it!

To start taking photographs press the Timer start/stop button and it will show "timer active" on the display. To stop taking photographs press it again.

Because the remote control is on a length of cable it makes it much simpler to be able to fix the remote near the front of the camera, I use Blu-tak to fix it to the tripod aiming up at the camera.

Total cost of time-lapse rig was only £29.99, That's...  
 Phottix Timer Remote N2 £27.00  
 Nikon D70 Infrared remote control £2.99

**Further possibilities for my rig:**

If you use several digital cameras and want to try time-lapse on any of them with this rig then I have found

Universal Remote Control Learning/Pre-Programmable Remote

Find one right now.....

[Click here to search ebay UK for a learning remote control.](#)

This particular type is different to most on the market. Normally these universal remotes need you to type in a code relating to the manufacturer of your TV.

But this particular model is actually an infrared recorder/player. This means you can play an infrared signal into it and it will record and assign that signal to a button.

This recorded signal can then be played back by pressing that key.

This model has a slide switch that allows you to select one of four banks of keys. If you wire the Intervalometer to one of the buttons and then record the IR signals from upto four different cameras each on the same button but on a different bank then this will mean you can select one of four cameras to control with it. The advantage here is that you only need one rig (Intervalometer and universal remote). Also because its powered from AAA batteries then it will last for a long time. This also means its future proofed as you can always record the IR signal from any camera that you upgrade to in the future!

I have tried this with the remote control and can confirm it works ok.

I have tried my setup on my Nikon D70 and it works very well, video here...

[Time-lapse sequence I created using this setup on my D70](#)

*I have recently found that you can actually buy a intervalometer for the D70, its called the Pclix LT100 but its costs over £90 and does not look as good ! (£69.44 for the unit + £10.91 for the C-100 - Infrared Trigger Cable + £10.71 P&P).*

If you have any questions then please ask.

Tue Sep 09, 2008 3:32 am

[PROFILE](#)

**Isim001**

**Re: Off the shelf solution to timelapse on ANY camera, Nikon D70**

This looks awesome. Would be even more awesome with a RF remote so you don't have to be in front of the camera to use it. (I assume that the infrared sensor is in front).

Any idea if you could make this work with a Canon?

Joined: Thu Sep 04, 2008 3:11 am  
Posts: 9

Tue Sep 09, 2008 6:25 pm

[PROFILE](#)

**comedyhunter**

**Re: Off the shelf solution to timelapse on ANY camera, Nikon D70**



Isim001 wrote:

This looks awesome. Would be even more awesome with a RF remote so you don't have to be in front of the camera to use it. (I assume that the infrared sensor is in front).  
Any idea if you could make this work with a Canon?

Yes on the D70 the sensor is on the front of the camera, but because my remote is on a long lead then its very easy to get it near the front of the camera.

My system will work on ANY camera that has an InfraRed control all you need to do is substitute your remote for the one shown in my photos. Just find that shutter connections and connect the wires to it. Its very simple and easy to get it working.

My method with the "learning remote" is the best option as you don't have to destroy any camera remotes, you just record the signal!

Joined: Wed May 21, 2008 3:34 am  
Posts: 45

Tue Sep 09, 2008 9:14 pm

[PROFILE](#)

**Antz**

**Re: Off the shelf solution to timelapse on ANY camera, Nikon D70**



I basically did the same thing with a small Canon S60 a while back, and was quite often missing frames, regardless of how long the remote was switched on/triggered.

The other day I was using a standard unmodified IR remote with a couple of Rebel XTs for some 3d still shots and would quite often only trigger one camera, so some testing may be required to ensure it will behave reliably with the Canons.

All in all I tried it with about 4 different Canon bodies, and all of them were unreliable and occasionally missed frames.

Obviously not a problem with the Nikon though. Nice simple compact way of doing it.

[Anthony Powell](#)

[Photos Blog Youtube Vimeo Facebook Google+](#)

My feature length "**Antarctica: Year on Ice**" movie coming soon

Joined: Tue Jul 08, 2008 12:36 pm  
Posts: 1493  
Location: Antarctica/California/New Zealand

Wed Sep 10, 2008 5:45 pm

[PROFILE](#)

**Arnel**

**Re: Off the shelf solution to timelapse on ANY camera, Nikon D70**

I have the Nikon ML-L3 and i was wondering if i could do this on that remote. If so, where do i solder the wires and stuff???

Joined: Sun May 17, 2009 12:44 pm  
Posts: 1

Sun May 17, 2009 12:45 pm

[PROFILE](#)

**comedyhunter**

**Re: Off the shelf solution to timelapse on ANY camera, Nikon D70**

You need to find the points inside the remote that go to the shutter switch pad. If you are not really sure about what you are doing then its best to try and find someone to help you. This is the other reason for me suggesting you buy