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## GIPO - Canon EOS R8 - 2.5mm

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**512MB**

(@512mb)



Trusted Member



### GIPO - Canon EOS R8 - 2.5mm

How can I configure my Prusa MK4S with the GPIO board to trigger a camera and take a picture right after each layer change? The camera uses a 2.5 mm AUX input, and I currently use a microswitch on another printer to trigger it. I'd like to switch to using the GPIO functionality on the MK4S instead. How can I achieve this, and what G-code or methods are recommended?

#### Best Answer by **Zemistr:**

I am just checking the Canon R8.

Cable Jack 2.5 mm to Jack 2.5 mm is just plug and play.

The pins in the open drain section are not able to send any current to nowhere.

They are basically just connecting pin from the open drain section to the GND.

Use **M262 P0 B0** to set the pin 0 as output.

Use **M264 P0 B1** to connect the pin 0 to GND.

Use **G4 P200** to wait 200ms.

Use **M264 P0 B0** to disconnect the pin 0 from GND.

So the whole G-Code is:

```
M262 P0 B0
M264 P0 B1
G4 P200
M264 P0 B0
```

Btw... I am using Canon R5C... 😊

English    Login Log in to be able to post 

Posted : 25/01/2025 2:03 pm

 LarGriff

(@largriff)



Estimable Member

 Log in to be able to post **RE: GIPO - Canon EOS R8 - 2.5mm**

Try the following post. He demonstrates triggering a cellphone to take stop-motion pictures. It should be somewhat similar to what you need.

<https://forum.prusa3d.com/forum/english-forum-original-prusa-i3-mk4s-add-ons/youtube-videos-using-prusa-gpio-hackerboard/#post-733740>

MK4S/MMU3

Posted : 25/01/2025 3:00 pm

512MB liked

 512MB

(@512mb)



Trusted Member



Topic starter answered:

**RE: GIPO - Canon EOS R8 - 2.5mm**

When I first read it and watched the video, it became clear that this wasn't a simple solution. Disappointing.

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Posted : 25/01/2025 4:05 pm

 LarGriff

(@largriff)



Estimable Member

 Log in to be able to post **RE: GIPO - Canon EOS R8 - 2.5mm**

Your situation should be quite a bit simpler using your Canon camera. You'll just need the GPIO board. You probably won't even have to do any soldering if you already have a shutter release cable. Just plug it in to the GPIO board and setup the gcode to use pin 0 as an output per the video.

MK4S/MMU3

Posted : 25/01/2025 4:26 pm

Zemistr liked



Topic starter answered:

**RE: GIPO - Canon EOS R8 - 2.5mm**

The cable used to take a picture is a standard 2.5mm AUX cable. From what you're saying, I simply need to plug one end into the AUX port on the GPIO board

English ▾



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Trusted Member  
★★★

After that, I should call M262 P0 B0 to set pin 0 as an output pin.

This shouldn't send any electrical current through the cable to the camera that could damage it, correct?

Or do I need to connect it in a different way? I don't want to risk damaging my \$1600 camera. 😊

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Posted : 25/01/2025 4:35 pm

LarGriff liked



● Zemistr  
(@zemistr)  
Eminent Member  
★★

### RE:

I am just checking the Canon R8.

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M264 P0 B1
G4 P200
M264 P0 B0
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Btw... I am using Canon R5C... 😊

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Posted : 25/01/2025 4:46 pm



● LarGriff  
A photo of a Beagle dog.

### RE: GIPO - Canon EOS R8 - 2.5mm

You're correct on the cable hookup. The connection will appear to your camera exactly the same as a micro switch. All it does is closes a circuit, just like the micro switch does. You'll need to add gcode for the layer changes, per the video. I look forward to seeing some time-lapse video from you soon!

English ▾



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Estimable Member



The cable used to take a picture is a standard 2.5mm AUX cable. From what you're saying, I simply need to plug one end into the AUX port on the GPIO board and the other end into the camera's 2.5mm AUX input.

After that, I should call M262 P0 B0 to set pin 0 as an output pin.

This shouldn't send any electrical current through the cable to the camera that could damage it, correct?

Or do I need to connect it in a different way? I don't want to risk damaging my \$1600 camera. 😊

MK4S/MMU3

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Posted : 25/01/2025 4:53 pm

Zemistr liked



● Sembazuru

(@sembazuru)



Noble Member



## RE: GIPO - Canon EOS R8 - 2.5mm

**Posted by:** @largriff

You're correct on the cable hookup. The connection will appear to your camera exactly the same as a micro switch. All it does is closes a circuit, just like the micro switch does. You'll need to add gcode for the layer changes, per the video. I look forward to seeing some time-lapse video from you soon!

**Posted by:** @512mb

The cable used to take a picture is a standard 2.5mm AUX cable. From what you're saying, I simply need to plug one end into the AUX port on the GPIO board and the other end into the camera's 2.5mm AUX input.

After that, I should call M262 P0 B0 to set pin 0 as an output pin.

This shouldn't send any electrical current through the cable to the camera that could damage it, correct?

English ▾


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Or do I need to connect it in a different way? I don't want to risk damaging my \$1600 camera. 😊

It depends on the signaling of his microswitch. If the microswitch connects to ground when closed then yes, the GPIO board (which mostly acts like a microswitch to ground) should work, and won't need a debounce circuit. If his microswitch connects to some logical high signal there might be some additional circuitry required.

Without knowing the details of the camera trigger circuit (schematic, signaling levels, etc) that already works with his camera, I'm unable to give more than the hand-waving paragraph, above.

See my (limited) designs on:  
 Printables - <https://www.printables.com/@Sembazuru>  
 Thingiverse - <https://www.thingiverse.com/Sembazuru/designs>

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Posted : 25/01/2025 7:25 pm



### RE: GIPO - Canon EOS R8 - 2.5mm

I already wrote answer here but I see it is "Awaiting moderation" 😠

So I gave the answer again on YouTube, where @512mb also asked.

● **Zemistr**

(@zemistr)



Eminent Member



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Posted : 25/01/2025 7:28 pm



**Topic starter answered:**

### RE: GIPO - Canon EOS R8 - 2.5mm

Hello again!

Thanks for all your help! This made it much easier to decide on buying two Prusa MK4S printers and later a Prusa XL.

I'm going to wait until summer to purchase the XL, as I'm not sure if they're planning to release an upgraded "S" version of the XL anytime soon.

Thanks again!

Answer to my questions:

"RE:

I am just checking the Canon R8 Cable Jack 2.5 mm to Jack 2.5 mm is just plug and play.

English ▾



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GND.

Use **M262 P0 B0** to set the pin 0 as output. Use **M264 P0 B1** to connect the pin 0 to GND. Use **G4 P200** to wait 200ms. Use **M264 P0 B0** to disconnect the pin 0 from GND.

So the whole G-Code is:

```
M262 P0 B0 M264 P0 B1 G4 P200 M264 P0 B0
```

Btw... I am using Canon R5C... 😊"

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Posted : 27/01/2025 6:15 am

Zemistr liked



### RE: GIPO - Canon EOS R8 - 2.5mm

No problem 😊

I'm still doing more tests and writing a script for a new video.

I can't decide whether to split the video into two or more parts, as the video will already be full of information and around 15 minutes long. 😢

● **Zemistr**

(@zemistr)



Eminent Member



Posted : 27/01/2025 10:47 am

512MB liked

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### Topic starter answered:

### RE: GIPO - Canon EOS R8 - 2.5mm

Just a suggestion: split it into two parts.

● **512MB**

(@512mb)



Trusted Member



One part could explain how you did it, covering things like what to keep in mind regarding lighting, F-settings, and how fast a photo should be taken, such as 1/110 shutter speed, etc.

Then, it might be good to add details about using the electronic shutter, how to write G-codes, and how to adjust things like the length of pauses.

Later, you could dive deeper into camera settings, theory, and important considerations to keep in mind, etc.

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**Zemistr**

@zemistr)



Eminent Member

**RE:**

That's more or less how I wanted to do it. 😊

1. what you need to know, camera settings, setting the environment, different looks with different apertures, converting photos to video
2. wired shutter, which yes and which no, g-code and slicer settings
3. wireless shutter, which yes and which no, camera settings, g-code and slicer settings

It would be better to put it all in one video, but if you're interested in a wired trigger, you don't want to spend another few minutes watching information about wireless triggers and the changes needed.

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Posted : 27/01/2025 11:40 am

512MB liked

**Zemistr**

@zemistr)



Eminent Member

**RE: GIPO - Canon EOS R8 - 2.5mm**

Actually 4 videos, because one will be for some extra info 😊

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Posted : 27/01/2025 11:45 am

512MB liked

**512MB**

@512mb)



Trusted Member

**Topic starter answered:****RE: GIPO - Canon EOS R8 - 2.5mm**

This is something that will become the recommended series for the future! Sounds super exciting! Looking forward to watching these videos!

I also know that others are using a microswitch without the GPIO board. In the video, he uses a microswitch on the X-axis, right side. Maybe a good alternative without GPIO 😊

Check out the video:

English 

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Posted : 27/01/2025 3:35 pm

Zemistr and LarGriff liked

 **LarGriff**

(@largriff)



Estimable Member

**RE: GIPO - Canon EOS R8 - 2.5mm**

I like the creation of a purge tower to catch strings.

**Posted by:** [@512mb](#)

This is something that will become the recommended series for the future! Sounds super exciting! Looking forward to watching these videos!

I also know that others are using a microswitch without the GPIO board. In the video, he uses a microswitch on the X-axis, right side. Maybe a good alternative without GPIO 😊

Check out the video:

English



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MK4S/MMU3

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Posted : 27/01/2025 4:00 pm

**Zemistr**

(@zemistr)



Eminent Member

**RE: GIPO - Canon EOS R8 - 2.5mm**

I tried the same procedure with the tower, but it consumed too much filament and it did not work well with the MMU.

So I decided to use a column with a cross in the middle.

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Posted : 27/01/2025 11:12 pm

512MB and LarGriff liked

**512MB**

(@512mb)



Trusted Member

**Topic starter answered:****RE: GIPO - Canon EOS R8 - 2.5mm**

The video you made on how to set up a camera is really well done—great job!

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Posted : 08/02/2025 6:53 pm

Zemistr liked

**Topic starter answered:****RE: GIPO - Canon EOS R8 - 2.5mm**

Hello!

English ▾



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**● 512MB**

(@512mb)



Trusted Member

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```
M262 P0 B0
G1 X241 Y201 F10000
M264 P0 B1
G4 P500
M264 P0 B0
```

Posted : 08/02/2025 7:34 pm

**● Zemistr**

(@zemistr)



Eminent Member

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Posted : 08/02/2025 7:54 pm

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