2016 Focus / Priorities

1. HDMI2USB
    - Getting the C side of the firmware under control (IE Porting Linux or RTEMS)
    - Reliability?

2. voctomix
    -

3. Experiments
    - SDI Expansion Board
    - Milkymist related?
    - Hardware mixing?

- Not a priority
    - Rewrite flumotion
    -

TODO List

1. ~~**[everyone]** Create a list of other GSoC organisations to reach out too Synergistic GSoC Orgs~~
   ~~Done!~~
   ~~https://docs.google.com/spreadsheets/d/15odmVLyKuOmgFCJ9KL8A7jyrccQCr4PDlXhrR_f4_ss/edit#gid=1137310765~~

2. **[everyone]** Flesh out the ideas listed here
   See
   https://docs.google.com/spreadsheets/d/1WD8-rkVY-AQdtiHD5a2noKDFf4zl852wBPFQnBOklj4/edit#gid=0

3. ~~**[everyone]** Create a list of mentors / potential mentors~~
   ~~**See here**~~

4. ~~**[mithro]** Send out invites to mentors~~
5. **[everyone]** Improve the "contributing page" -- https://code.timvideos.us/contribute/
6. **[everyone]** Improve the "summer of code page" --
   https://code.timvideos.us/summer-of-code/
7. **[everyone]** Fix the "news" page at -- https://code.timvideos.us/news/

8. **[everyone]** Promote the HDMI2USB project everywhere.
   Really concentrate on getting strong hardware students.
   See here

Mentors

Put stuff here!

Real Name	IRC Nick	Role	Projects	Invited?
Tim Ansell	mithro	Mentor + Admin	All projects	Yes
Carl Karsten	CarlFK	Mentor + Admin	veypar	Yes
Florent Kermarrec	_florent_	Mentor	VHDL / Verilog / Porting to MiGen	Yes
Joel Stanley	shenki	Mentor + Admin	Hardware projects / HDMI2USB	Yes
Ryan Verner	xfxf	Admin	NextDayVideo related stuff	Yes
Potential people to invite				
Luke John	lukejohn__	Helper	Event Streamer / PLUG	
Leon Wright	techman83	Mentor	Event Streamer / PLUG / Perl	
Jahanzeb		Helper	Hardware projects / HDMI2USB	
Jan Schmidt	thaytan	Helper	gstreamer	Yes
Michael F	micolous	Helper	NextDayVideo dvswitch related	Yes
Joel W	Joelw	Helper		
Sheila Miguez	skay	Mentor	automation projects with docker/vagrant. any python code. any java code (if that happens for some reason)	
Stefano Rivera	tumbleweed	Mentor	Debian?	
Chris Felton	cfelton	Mentor	VHDL	
Peter	MaZderMind	Helper	gst-switch	**Doesn't have time**
	slomo	Helper	gstreamer / voctomix	

	sb0	???	misoc / migen	
Ajit Mathew	tija	Helper / Mentor?	Previous GSoC Student	
Rohit	rohitksingh	Helper / Mentor?	Previous GSoC Student	

Promotional Messages

Generic Google Summer of Code & Hardware Projects Message

Reddit

Upvote

- http://www.reddit.com/r/FPGA/comments/20pmie/students_get_paid_to_hack_on_open_source/
- http://www.reddit.com/r/opensourcehardware/comments/20plen/summer_of_code_supports_open_hardware_projects/
- http://www.reddit.com/r/opensource/comments/20pp4d/summer_of_code_supports_open_hardware_projects/

Students, get paid to hack on open source VHDL/Verilog. Deadline in 3 days!
My FOSS project, [TimVideos](http://www.google-melange.com/gsoc/org2/google/gsoc2014/timvideos), got accepted into Google Summer of Code and we have a bunch of [possible ideas](https://github.com/timvideos/getting-started/issues) related to our capture device the [HDMI2USB](http://code.timvideos.us/HDMI2USB.html) which is based around a Spartan 6 FPGA. We would really love to see students funded to work on open source hardware!

[Google Summer of Code](http://www.google-melange.com/gsoc/homepage/google/gsoc2014) is a global program that offers post-secondary student developers ages 18 and older stipends (currently US$5,500) to write code for various open source projects.

[Flip bits, not burgers!](http://www.google-melange.com/gsoc/homepage/google/gsoc2014) Applications close this in 3 days!

Summer of Code supports Open Hardware projects, get paid to hack hardware. Deadline in 3 days!
[Google Summer of Code](http://www.google-melange.com/gsoc/homepage/google/gsoc2014) is a global program that offers post-secondary student developers ages 18 and older stipends (currently US$5,500) to write code for various open source projects.

Once again there are a bunch of projects doing Open Hardware related stuff! These include; [CoreBoot](http://www.google-melange.com/gsoc/org2/google/gsoc2014/coreboot) - *project aimed at replacing the proprietary BIOS*, [Crypto Stick](http://www.google-melange.com/gsoc/org2/google/gsoc2014/cryptostick) - *next generation security USB keys*, [Beagle Board](http://www.google-melange.com/gsoc/org2/google/gsoc2014/beagle) - *true open hardware, exposing users to the broader world of electronics* and [TimVideos](http://www.google-melange.com/gsoc/org2/google/gsoc2014/timvideos) - *software and hardware for video and presentation capture at conferences, meetings and user groups*.

Of course there is the old stable of software projects such as [Apache Software Foundation](http://www.google-melange.com/gsoc/org2/google/gsoc2014/apache), [Python Software Foundation](http://www.google-melange.com/gsoc/org2/google/gsoc2014/python) and [many more](http://www.google-melange.com/gsoc/org/list/public/google/gsoc2014).

[Flip bits, not burgers!](http://www.google-melange.com/gsoc/homepage/google/gsoc2014) Applications close this in 3 days!

Reddit Example from last year

http://www.reddit.com/r/opensource/comments/1dgm3c/summer_of_code_supports_open_hardware_projects/

> Google Summer of Code is a global program that offers post-secondary student developers ages 18 and older stipends to write code for various open source software projects.
>
> This year there are a number of projects doing Open Hardware projects, such as CoreBoot - *project aimed at replacing the proprietary BIOS*, Crypto Stick - *next generation security USB keys*, Beagle Board - *true open hardware, exposing users to the broader world of electronics* and TimVideos - *recording and live event streaming for conferences, meetings, user groups and other presentations*.
>
> Of course there is the old stable of software projects such as Apache Software Foundation, Python Software Foundation and many more.
>
> **Flip bits, not burgers!** Applications close this Friday!

TimVideos HDMI2USB specific Messages

Random bits

My interest comes from the fact that we are using the Digilent Atlys board for prototyping a HDMI capture / switching solution. (You can check it out at http://code.timvideos.us/HDMI2USB.html and https://github.com/timvideos/HDMI2USB) and your firmware has interesting aspects (the Ethernet MAC) we would love to reuse.

Excitingly, TimVideos (the organization which is developing the HDMI2USB) got accepted into Google Summer of Code this year. Hence, we are looking for students to get paid over the summer to work on this device (one just project would be to add support for the Ethernet interface).

Questions to ask!

- Do you know anyone who might be interested? If so could you send them our way?
- Do you know anywhere we should be promoting these projects that would help us reach students?

GSoC Application

- Why does your org want to participate in Google Summer of Code? 1000

TimVideos' focus is empowering FOSS communities to share knowledge and ideas through video recording and streaming. This will, in turn, help these communities attract new members and build strong participation. This shares a strong commonality with GSoC's own support of FOSS projects through getting students to participate. We hope GSoC's involvement with TimVideos has a multiplicative effect! GSoC helps TimVideos grow; TimVideos helps FOSS communities grow.

TimVideos covers a wide gamut of technologies in which we hope to offer possible GSoC projects. One area of particular interest is the FOSS hardware based projects. While the overall amount of FOSS in hardware is still small, it has already had a dramatic effect on the industry and we intend to help with that impact. Modern hardware projects now strongly involve the development code, making these projects a perfect fit for Google Summer of >Code<.

Thanks to GSoC 2013 and GSoC 2014, both the development and user community grew faster than would have been possible otherwise. By participating in GSoC 2015, we hope to further accelerate this growth. We also hope that GSoC students will not just help build the tools, but start *using* these systems themselves in their own local communities.

- How many potential mentors have agreed to mentor this year?

11-15

- How will you keep mentors engaged with their students? 1000

- How will you keep mentors engaged with their students?

- How will you help your students stay on schedule to complete their projects? 1000

- How will you get your students involved in your community during GSoC? 1000

While GSoC is primarily a virtual event we actively aim to make it a more tangible experience.

Starting off the program by having a purely social video chat with all the mentors for each individual student to break the ice, we then make regular use of video. We aim to get all the students physically out to at least one conference (or other event) we record. Not only will this allow students to get hands-on experience with the systems they are working on, it will also allow them to meet part of the team in person. At the end of the GSoC program we plan to send each student a custom TimVideos t-shirt to compliment the GSoC shirt.

All development will be actively part of the whole project community. Students will be required to post weekly status reports to the mailing lists. They will be encouraged to have good, communicative relationships with not only their own mentors (they will have primary and secondary mentors) but all mentors and organisation admins.

- How will you keep students involved with your community after GSoC?

As mentioned in the previous section we actively aim to make it a more tangible experience which has had success in encouraging students to stick around.

Students are also actively encouraged to use our technology in their lives, such as helping video their local user groups. Being a user is a strong reason to continue contributing to a project.

Finally, we encourage students to stick around socially even if they no longer have time to continue with their project. When we live stream an event, we invite our community, including past students, to watch and discuss with us on IRC.

- Has your org been accepted as a mentoring org in Google Summer of Code before?

Yes

- Which years did your org participate in GSoC?

2014
2015

- What is your success/fail rate per year?

In 2013 we had 3 students, 2 passing the final evaluation.
In 2014 we had 8 students, 7 passing the final evaluation.

In both cases many of the students have continued to be active in the community. In January

2015, we had sprints in Auckland at which 3 of previous GSoC students attended. https://hdmi2usb.tv/timvideos/sprints/lca2015/gsoc/2015/02/01/sprints-and-linux-conf-au/

- Are you part of a foundation/umbrella organization?

No

- What year was your project started?

2010

- Anything else we should know (optional)?

XXXX

Left Over Bits

TimVideos.us is a software, firmware and hardware for doing recording and streaming for conferences, meetings, user groups and other presentations.

[**TimVideos.us** is a _group_ of exciting projects](https://code.timvideos.us) which together create a system for doing both _recording and live event streaming_ for **conferences**, **meetings**, **user groups** and **other** presentations.

We hope that, through our _projects_, the costs and expertise currently required to produce live streaming events will be reduced to near zero. We wish to develop a system where everyone has the ability to record presentations and host live remote participants across the globe.

Our projects include simple web development, to real time live video mixing software, to even hardware and electronics! One of our biggest projects is the [HDMI2USB.tv project](https://hdmi2usb.tv).

HDMI2USB.tv: Open video capture hardware + firmware

The HDMI2USB project develops affordable hardware options to record and stream HD videos (from HDMI & DisplayPort sources) for conferences, meetings and user groups.

We are currently developing our own hardware (the [Numato Opsis](https://hdmi2usb.tv/numato-opsis/)), and also [provide firmware](https://hdmi2usb.tv/firmware/) for various prototyping boards.

HDMI2USB started in 2013, and is an active ongoing project in its third iteration of hardware prototyping. Today you can download working firmware and have real capture happen. Get involved in contributing code both to the capture software + FPGA stack

Our aim is this becomes the defacto, incredibly affordable and easy to use video recording hardware for conferences, meetings and user groups worldwide.

Find out more about HDMI2USB and why we're doing this in [ABOUT + FAQ](https://hdmi2usb.tv/faq/)

First, **please start by reading our [GSoC advice page](https://code.timvideos.us/summer-of-code/)** which includes a lot of important information on how to ask for help and writing a good proposal.

Once you have read the [GSoC advice page](https://code.timvideos.us/summer-of-code/) you can go to the [contributing page](https://code.timvideos.us/contribute/) which will try and figure out which project best fits your interests and skills. The page will eventually take you to our [getting started issue tracker](https://github.com/timvideos/getting-started/issues) which includes our most fleshed out ideas for projects, many of which are suitable for GSoC.

We encourage students to figure out which idea excites them the most! A student who is interested in their project is more likely to write a good proposal and get accepted. As selecting a project or understanding an idea can be hard, we recommend you come join us [on IRC](https://webchat.freenode.net/?channels=timvideos) and talk to us further about them. Good students are engaged with the community before GSoC even starts!

Once you have found a project you are interested in working on, go to the issue tracker for the project and look for bugs marked "Good First Bug". These bugs are simple enough that you should with some help be able try to fix them. Submitting a bug fix shows that you have understood the project enough to get things set up and while **not** required is a strong positive signal we will use when assessing your application.

As mentioned in the [GSoC advice page](https://code.timvideos.us/summer-of-code/) page, mentors and the community are happy to review applications and give feedback. This will drastically improve the quality of your application and give you a better chance of being accepted.

Description*

TimVideos.us is a group of exciting projects which together create a system for doing both recording and live event streaming for conferences, meetings, user groups and other presentations.

We hope that, through our projects, the costs and expertise currently required to produce live streaming events will be reduced to near zero. We wish to develop a system where everyone has the ability to record presentations and host live remote participants across the globe.

Whether you want to work hands-on with hardware or code in a variety of languages, we have a project for you.

Join the team!

As we have a wide range of projects the exact number of mentors depends on which ideas students are interested in. We have roughly 10-15 mentors in total and would be looking at 5-10 students in total.

We have roughly two levels of experiences in mentors. About a half have previously been GSoC mentors. The remaining mentors are new to the GSoC program, but are existing members of the TimVideos community. All have demonstrated a combination of teaching ability and technical proficiency in relevant areas.

We have found that our best mentors are not just subject matter experts but people who strongly help fostering a student's general troubleshooting skills.

How will you help students stay on schedule to complete their projects?

Happy with this section: Tim

We aim to achieve consistent engagement from prospective students before GSoC even starts.

Once part of GSoC, students will be required to provide multiple contact methods to allow contact if issues occur with one method. The students will be required to have weekly meetings with their mentors and provide both frequent blog posts and weekly development summary reports. This will allow us to see issues and head them off before they cause students to disappear.

If a student’s performance starts to degrade, we make clear our expectations and requirements

so they know where they stand. Goals are broken down into smaller achievable sections and progress is tracked more rigorously.

What is your plan for dealing with disappearing mentors?*

Happy with this section: Tim

Students will be encourage to have good relationships with not only their own mentors (they will have primary and secondary mentors) but all mentors and organisation admins. They are also strongly encouraged to seek support from the rest of the TimVideos community.

This means that if a mentor disappears then the student will already have a good relationship with a new person they can be assigned to.

We also have two organisation admins, one who will not be directly mentoring students. Students are always welcome to talk to other mentors and administrators if their mentor is unavailable or another problem arises. Any issues will be taken seriously and treated confidentially.

We also introduce the students to each other, encouraging them to develop camaraderie and mutual support. Most new contributors will experience similar problems and this support helps them be more effective. Many students start out as inexperienced or uncomfortable with communication methods such as irc and email so we make a large effort to establish them as places where friendly and civil conversation is both expected and encouraged.

Left Over Bits

Currently there are steep technical and financial obstacles preventing most people from working with video in the FOSS community. We are trying to create new technology that is easy to use and inexpensive to acquire. Open source is an inherent part of that, which is why we want to help students to become contributing members of the broader FOSS community. Our participation in GSoC 2014 will help advance these goals significantly faster.

We had good success along these lines in the past. They were soon providing a first level of support to each other's questions, which could always be escalated to a mentor. Students are also provided each other's contact information (if they agree) to allow them to communicate privately, away from the public channels.