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## URGENT: Need printable Project Brief from Team 1

8 messages

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**Steve VanderLeest <svleest@calvin.edu>**

**Wed, Mar 16, 2011 at 11:41 AM**

To: Amy Ball <alb46@students.calvin.edu>, Avery Sterk <ams59@students.calvin.edu>, Kendrick Wiersma <kgw3@students.calvin.edu>, Nathan Jen <njj6@students.calvin.edu>  
Cc: "Therault, Tim(GE Infra, Aviation)" <Tim.Therault@ge.com>

Team 1: Mr. Therault has not been able to print your Project Brief. He can view it, but it does not print correctly (he tried it on two different printers, gets garbage characters). Could you please quickly regenerate the document and email it to him (he is CC'd on this message)? If possible try producing a couple different formats so that hopefully one of them works.

- Prof. VL

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Steven H. VanderLeest, Ph.D.  
Professor of Engineering, Calvin College  
gVoice: six-one-six-929-0399  
[svleest@calvin.edu](mailto:svleest@calvin.edu)

"It is by no means easy to hold beliefs for which you would be willing to die, and yet to remain open to new insights; but it is precisely such a combination of commitment and inquiry that constitutes religious maturity." -- Ian Barbour in *Myths, Models and Paradigms: A Comparative Study in Science and Religion*

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**Kendrick Wiersma <kgw3@students.calvin.edu>**

**Wed, Mar 16, 2011 at 11:47 AM**

To: Steve VanderLeest <svleest@calvin.edu>  
Cc: Amy Ball <alb46@students.calvin.edu>, Avery Sterk <ams59@students.calvin.edu>, Nathan Jen <njj6@students.calvin.edu>, "Therault, Tim(GE Infra, Aviation)" <Tim.Therault@ge.com>

Attached is a copy of our project brief in microsoft word (2007) format.  
I can attach another re-generated PDF when I get back to my laptop.  
Additionally, a copy of the PDF can be downloaded from our team website

<http://www.calvin.edu/academic/engineering/2010-11-team1/documents.html>

Kendrick

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**T01\_Project\_Brief\_C.docx**

537K

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**David Dorner <David.Dorner@dornerworks.com>**

**Mon, Mar 21, 2011 at 6:10 PM**

To: "kgw3@students.calvin.edu" <kgw3@students.calvin.edu>  
Cc: "Theriault, Tim (GE Aviation, US)" <Tim.Theriault@ge.com>

Kendrick,

Tim Theriault is an old friend of mine (previous boss too actually) and mentioned that he is mentoring your senior design team. I am a Calvin College EE grad myself, and like to help out where I can.

Tim mentioned that you need a SPI friendly bus protocol analyzer or logic analyzer. We actually have 4 very simple and affordable logic analyzers that have a SPI protocol analyzer built-in that are called "LogicPort".

I'm looking into if we could lend you 1 of them. If not, I'll talk with Steve VanderLeest as they are cheap enough that Calvin College could certainly invest in one for their senior design teams (they are on the order of around \$400 I think).

Also, Tim mentioned you may need some Linux help. I have several Linux guru's on staff, most of them Calvin grads. But I need some more information from you - what exactly are the problems you are having and what kind of help do you need (email, phone support, or someone "on-site")?

Thanks,  
David.

David K. Dorner, President  
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-----Original Message-----

From: Theriault, Tim (GE Aviation, US) [mailto:[Tim.Theriault@ge.com](mailto:Tim.Theriault@ge.com)]  
Sent: Monday, March 21, 2011 5:15 PM  
To: David Dorner  
Subject: FW: URGENT: Need printable Project Brief from Team 1

Dave,

Here is an email from Kendrick as we discussed concerning the Calvin senior project. His team mate's email addresses are also cc'd therein.

Best Regards, T^2

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**Kendrick Wiersma <kgw3@students.calvin.edu>**

**Thu, Mar 24, 2011 at 5:22 PM**

To: David Dorner <David.Dorner@dornerworks.com>

Cc: "Therault, Tim (GE Aviation, US)" <Tim.Therault@ge.com>, Steve VanderLeest <svleest@calvin.edu>, Ball Amy <alb46@students.calvin.edu>, Sterk Avery <ams59@students.calvin.edu>, Jen Nathan <nathanjen514953@gmail.com>

David,

First off, thanks for looking into whether or not we may be able to borrow one of your protocol analyzers. I've also spoken with Professor VanderLeest about the matter and I think he may be looking into the same thing.

As a point of curiosity, are the analyzers you are thinking of specific to SPI bus or would they also work for I2C? (Which is the other protocol we will be working on very shortly, although I'm more optimistic that we'll have better luck there).

As far as Linux help goes, what we are working on is compiling a custom Linux kernel to boot on our LEON3 SoC. The LEON3 is based on the SPARC V8 architecture, so we are working with cross-compiling a generic Linux kernel to operate on our processor. Basically, my team-mate Avery has been struggling getting the cross-compiler environment setup in such a way that he can generate a working SPARC Linux kernel. As far as what form of support he is specifically looking for, he can probably answer better than I, as he is the lead on that section. I have CC'd him so look for a response from him soon.

Thanks again.

Kendrick

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**Avery Sterk <ams59@students.calvin.edu>**

**Thu, Mar 24, 2011 at 7:28 PM**

To: Kendrick Wiersma <kgw3@students.calvin.edu>

Cc: David Dorner <David.Dorner@dornerworks.com>, "Therault, Tim (GE Aviation, US)" <Tim.Therault@ge.com>, Steve VanderLeest <svleest@calvin.edu>, Ball Amy <alb46@students.calvin.edu>, Jen Nathan <nathanjen514953@gmail.com>

David,

Since the meeting with Tim, in which we expressed our need of Linux expertise, I discovered a guide that focuses more on the cross-compiling art than the previous guide I had found. I have been able to adapt it to the Sparc architecture quite smoothly, so the issue I had before (which involved getting GCC to compile another GCC) has been worked around.

At the moment, the only roadblock I can see is using the vendor-supplied

tool for making bootable Linux payloads. I think that the only solution for that will be adding more eye-hours to the documentation for the tool. In short, I think our Linux issues are (mostly) behind us, but I and the team appreciate your willingness to help!

Avery

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**Steven.H.VanderLeest <steven.h.vanderleest@gmail.com>**

**Fri, Mar 25, 2011 at 5:16 PM**

To: Kendrick Wiersma <kgw3@students.calvin.edu>

Cc: David Dorner <David.Dorner@dornerworks.com>, "Theriault, Tim (GE Aviation, US)" <Tim.Theriault@ge.com>, SteveVanderLeest <svleest@calvin.edu>, Ball Amy <alb46@students.calvin.edu>, SterkAvery <ams59@students.calvin.edu>, Jen Nathan <nathanjen514953@gmail.com>

Fred Robinson was going to leave one of the Beagle SPI bus logic analyzers on my desk at DornerWorks, one that is not currently in use. I'll loan that out to this team when I return from vacation next week. (or David can snag it from there and give to them sooner if he wants...)

From sunny St. Martin for one more day,  
Steve

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**David Dorner <David.Dorner@dornerworks.com>**

**Mon, Mar 28, 2011 at 6:51 PM**

To: "Steve Vanderleest (external)" <Steven.H.VanderLeest@gmail.com>, Kendrick Wiersma <kgw3@students.calvin.edu>

Cc: "Theriault, Tim (GE Aviation, US)" <Tim.Theriault@ge.com>, SteveVanderLeest <svleest@calvin.edu>, Ball Amy <alb46@students.calvin.edu>, SterkAvery <ams59@students.calvin.edu>, Jen Nathan <nathanjen514953@gmail.com>

Kendrick:

Sounds like Steve has already arranged to get you the Beagle SPI bus analyzer. It's not the one I was thinking of, which was a LogicPort. The LogicPort would support I2C in addition to SPI as it's more of a custom logic analyzer (with some protocols built in). I'm not sure if the Beagle analyzer also supports I2C.

Just let us know once you've got your SPI problems debugged if you need additional help with I2C later!  
Good luck.

Thanks,  
David...

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**David Dorner <David.Dorner@dornerworks.com>**

**Mon, Mar 28, 2011 at 6:52 PM**

To: Avery Sterk <ams59@students.calvin.edu>, Kendrick Wiersma <kgw3@students.calvin.edu>

Cc: "Theriault, Tim (GE Aviation, US)" <Tim.Theriault@ge.com>, Steve VanderLeest <svleest@calvin.edu>, Ball Amy <alb46@students.calvin.edu>, Jen Nathan <nathanjen514953@gmail.com>

Avery,

Glad to hear about your Linux progress! Give us a shout later if you need some help. Good luck!

Thanks,  
David...

-----Original Message-----

From: Avery Sterk [mailto:[ams59@students.calvin.edu](mailto:ams59@students.calvin.edu)]

Sent: Thursday, March 24, 2011 7:29 PM

To: Kendrick Wiersma

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