

Anthony Denault &lt;anthonydenault@gmail.com&gt;

**Dome Drive Electronics Upgrade Review**

4 messages

**Eric Warmbier** <warmbier@hawaii.edu> Tue, Feb 7, 2012 at 7:25 PM  
To: George Koenig <irtfkoenig@gmail.com>, Morgan Bonnet <mbonnet@ifa.hawaii.edu>, Tony Denault <anthonydenault@gmail.com>, Alan Tokunaga <tokunagaa001@gmail.com>, Randy Chung <rchung@ifa.hawaii.edu>

Hello everyone,

We would like to order the dome motors and drives very soon. I've created 3 documents covering various aspects of the project. I think they are complete enough to determine if we should continue with the motor purchase. Please review and give me an OK or your concerns.

Project Document

[https://docs.google.com/document/d/1A2C1d64Fjjeav0cqka5KyX5qETyGD6394L9GOn7owuc/edit?hl=en\\_US](https://docs.google.com/document/d/1A2C1d64Fjjeav0cqka5KyX5qETyGD6394L9GOn7owuc/edit?hl=en_US)

Technical analyses of various aspects of the system:

[https://docs.google.com/spreadsheets/ccc?key=0AgDomi\\_LyO2MdFRudmlwRXV0dk5zUIFkNFV1S2FKcIE&hl=en\\_US#gid=0](https://docs.google.com/spreadsheets/ccc?key=0AgDomi_LyO2MdFRudmlwRXV0dk5zUIFkNFV1S2FKcIE&hl=en_US#gid=0)

Specification. It's quite generic, but it lists the few important specs:

[https://docs.google.com/document/d/16Zshf\\_i8ENfzZmuJ7Hb\\_bhyH2loGZL\\_ducKa\\_qbuYrk/edit?hl=en\\_US](https://docs.google.com/document/d/16Zshf_i8ENfzZmuJ7Hb_bhyH2loGZL_ducKa_qbuYrk/edit?hl=en_US)

Thanks.

Eric

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**Anthony Denault** <anthonydenault@gmail.com> Wed, Feb 8, 2012 at 12:30 PM  
To: Eric Warmbier <warmbier@hawaii.edu>  
Cc: George Koenig <irtfkoenig@gmail.com>, Morgan Bonnet <mbonnet@ifa.hawaii.edu>, Alan Tokunaga <tokunagaa001@gmail.com>, Randy Chung <rchung@ifa.hawaii.edu>

Some comments:

1. Project overview and block diagram - please include part #. (But I can see them in the Cost spreadsheet).
2. Section 4.8 - lab test system. We should test actually hardware to be installed at the summit in the Lab. The lab has a full tcs ... the baldor stuff can be hooked up to the lab TCS safety board (for example).
3. Spend some time search the baldor site. The software development looks much bigger that previously anticipated: many items (powerlink, each Drive unit, Motion card) need to be configured with baldor window tool, with custom setup, servo tuning. Hope it doesn't become a bigger (complex) servo project. The equipment is high end, it seems to require some investment in time.
4. Schedule or Gant  
"Programmer controller in Lab (TD)" ends in May.  
These item can't start until this the "Lab development" ends:
  - Install Drives, Software, Misc
  - Install Drive motors
  - Test dome motor control system.And I don't have enough data/experience to say that I can finish in may.

My worry is, that this dome upgrade is a servo project, and servo projects are never simpler or easy.

Tony

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Tony Denault  
 Phone: (808) 932-2378  
 Email: [denault@ifa.hawaii.edu](mailto:denault@ifa.hawaii.edu)

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**Eric Warmbier** <[warmbier@hawaii.edu](mailto:warmbier@hawaii.edu)>

Wed, Feb 8, 2012 at 2:36 PM

To: Anthony Denault <[anthonydenault@gmail.com](mailto:anthonydenault@gmail.com)>

Cc: George Koenig <[irtfkoenig@gmail.com](mailto:irtfkoenig@gmail.com)>, Morgan Bonnet <[mbonnet@ifa.hawaii.edu](mailto:mbonnet@ifa.hawaii.edu)>, Alan Tokunaga <[tokunagaa001@gmail.com](mailto:tokunagaa001@gmail.com)>, Randy Chung <[rchung@ifa.hawaii.edu](mailto:rchung@ifa.hawaii.edu)>

Hi everyone. Comments below.

On Wed, Feb 8, 2012 at 12:30 PM, Anthony Denault <[anthonydenault@gmail.com](mailto:anthonydenault@gmail.com)> wrote:

Some comments:

1. Project overview and block diagram - please include part #. (But I can see them in the Cost spreadsheet).  
**DONE.**

2. Section 4.8 - lab test system. We should test actually hardware to be installed at the summit in the Lab. The lab has a full tcs ... the baldor stuff can be hooked up to the lab TCS safety board (for example).  
**Agreed. Plan modified accordingly.**

3. Spend some time search the baldor site. The software development looks much bigger that previously anticipated: many items (powerlink, each Drive unit, Motion card) need to be configured with baldor window tool, with custom setup, servo tuning. Hope it doesn't become a bigger (complex) servo project. The equipment is high end, it seems to require some investment in time.

**I hope so too. Yes, the software could take some time. I am not a Baldor/Mint expert, so I don't have a good estimation.**

4. Schedule or Gant

"Programmer controller in Lab (TD)" ends in May.

These item can't start until this the "Lab development" ends:

Install Drives, Software, Misc

Install Drive motors

Test dome motor control system.

And I don't have enough data/experience to say that I can finish in may.

**Gantt was updated for more time (up to June) for programming but I don't know if that is reasonable. Perhaps we should plan on doing the testing in July? We need it by August. It's tight, but that may be the way it is.**

My worry is, that this dome upgrade is a servo project, and servo projects are never simpler or easy.

Tony

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Tony Denault  
 Phone: (808) 932-2378  
 Email: [denault@ifa.hawaii.edu](mailto:denault@ifa.hawaii.edu)

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**Alan Tokunaga** <tokunaga@ifa.hawaii.edu>

Thu, Feb 9, 2012 at 7:26 AM

To: Eric Warmbier <warmbier@hawaii.edu>

Cc: George Koenig <irtfkoenig@gmail.com>, Morgan Bonnet <mbonnet@ifa.hawaii.edu>, Tony Denault <anthonydenault@gmail.com>, Randy Chung <rchung@ifa.hawaii.edu>

Eric,

1. Can you give to me an updated report (of the one mentioned below) in pdf format? I will add it to the Appendix of our MOWG report.
2. Can you make about 2-3 powerpoint slides summarizing the scope of the dome drive work and send them to me? I would like to use them in the MOWG presentation.
3. Please discuss with Tony if it would be useful to have a Baldor consultant work with you on the software interfaces in Hilo. I am willing to provide the consulting services if you think it will save time. Let Randy and I know if you would like to have this option.
4. If there are no further questions or issues you may proceed with the purchase of the motors and associated hardware.

Thanks, Alan

On Tue, Feb 7, 2012 at 7:25 PM, Eric Warmbier <warmbier@hawaii.edu> wrote:

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