Re: Thoughts on Troubleshooting Intermittant Faults

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- *From*: fairwater@xxxxxxxxx (Derek Lyons)

- *Date*: Mon, 18 Jul 2005 17:26:04 GMT

Peter Stickney <p−stickney@xxxxxxxxxxxx> wrote:

>jonathan wrote:
>
>> The second is that sensors generally are easy to put through
>> the full range of conditions on the bench. So if the sensor is
>> at fault the problem should be easy to find.
>
>'Taint necessarily so. Have you ever worked with Thermocouples,
>Pressure Transducers, or Strain Gauges? Those things produce signal
>changes on the order of microvolts − millivolts if you're lucky, and
>filtering the flyspecks from the pepper can be a seriously difficult
>process, especially in an environment with lots of RF floating
>around. While compensating amplifiers help, they also tend to
>amplify the noise as well. (I've done Data Acq systems where it was
>necessary to use CFAR (Constant False Alarm Rate) techniques and
>large acquisition volumes in order to gather the statistically
>required volume of data. It doesn't take much at all to bugger stuff
>like that up.

<nods> Things like an optical sensor that determines RPM are a bear
to test outside of the system as well. Problems can be in the lamp,
the detector, the alignment of the two, the alignment of the sensor
assembly to the unit whose RPM is being measured...

D.
−−
Touch−twice life. Eat. Drink. Laugh.

−Resolved: To be more temperate in my postings.
Oct 5th, 2004 JDL
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- Prev by Date: ***Re: Deep Impact Kicks Off Fourth of July with Deep Space Fireworks***
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