Execução:

Financiamento:

Projeto **ROSA**

Robô para Operação de Stoplogs Alagados

Título **Experimento 2 - Sensor indutivo**

Responsável(eis) Eduardo Elael, Gabriel Alcantara e Renan Freitas

Documento ROSA.2014.E.02

PD 6631-0002/2013

Contrato Jirau 151/13

Coordenador Ramon Romankevicius Costa

Gerente Breno Bellinati de Carvalho

Data: 10 de junho de 2014

Sumário

Lista de Figuras

Usually the Introduction is one paragraph that explains the objectives or purpose of the lab. In one sentence, state the hypothesis. Sometimes an introduction may contain background information, briefly summarize how the experiment was performed, state the findings of the experiment, and list the conclusions of the investigation. Even if you don't write a whole introduction, you need to state the purpose of the experiment, or why you did it. This would be where you state your hypothesis.

1 Propósito

O experimento 2, sensor indutivo, tem como principais objetivos:

- Avaliar a estrutura mecânica desenvolvida para o acoplamento do sensor indutivo na viga pescadora;
- Verificar a distância máxima de operação do sensor com o stoplog;
- Observar possíveis falso-positivos do sensor devido ao acoplamento metálico;
- Avaliar possíveis danos ao sensor e novas formas de acoplamento;

O experimento consistiu em acoplar o sensor indutivo à viga utilizando a estrutura metálica desenvolvida em laboratório pelo Prof. Ramon. O projeto mecânico foi desenvolido a partir do desenho detalhado da viga, disponível em CAD. O sensor indutivo é alimentado por duas baterias de $12V, 7Ah$, em série, formando uma alimentação de $24V$ para os sensores. A comunicação do sensor é como um relé, isto é, a saída tem a mesma tensão da bateria. Uma placa customizada, desenvolvida pelo grupo da eletrônica, gerencia a alimentação das baterias ao sensor e possui um dispositivo gateway ethernet que traduz a saída para um booleano.

Os resultados deste experimento mostraram que a escolha de um sensor indutivo faceado

List everything needed to complete your experiment.

2 Materiais

Describe the steps you completed during your investigation. This is your procedure. Be sufficiently detailed that anyone could read this section and duplicate your experiment. Write it as if you were giving direction for someone else to do the lab. It may be helpful to provide a Figure to diagram your experimental setup.

3 Métodos

Numerical data obtained from your procedure usually is presented as a table. Data encompasses what you recorded when you conducted the experiment. It's just the facts, not any interpretation of what they mean.

4 Dados

Describe in words what the data means. Sometimes the Results section is combined with the Discussion (Results e Discussion).

5 Resultados

The Data section contains numbers. The Analysis section contains any calculations you made based on those numbers. This is where you interpret the data and determine whether or not a hypothesis was accepted. This is also where you would discuss any mistakes you might have made while conducting the investigation. You may wish to describe ways the study might have been improved.

6 Análise

Most of the time the conclusion is a single paragraph that sums up what happened in the experiment, whether your hypothesis was accepted or rejected, and what this means.

7 Conclusão

Graphs and figures must both be labeled with a descriptive title. Label the axes on a graph, being sure to include units of measurement. The independent variable is on the X-axis. The dependent variable (the one you are measuring) is on the Y-axis. Be sure to refer to figures and graphs in the text of your report. The first figure is Figure 1, the second figure is Figure 2, etc.

8 Figuras e Gráficos

If your research was based on someone else's work or if you cited facts that require documentation, then you should list these references.

9 Referência