Trocando mensagens

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***Abstract*—This document is a model and instructions for LaTeX. This and the IEEEtran.cls file define the components of your paper [title, text, heads, etc.]. *CRITICAL: Do Not Use Symbols, Special Characters, Footnotes, or Math in Paper Title or Abstract.**

***Index Terms*—component, formatting, style, styling, insert**

I. Introdução

A. Contexto

B. Justificativa

C. Porquê

D. Importância

E. Objetivos

II. Referencial teórico

Falar sobre arduino, sensor e comunicação serial, etc.

III. Metodologia

Inicialmente foi separado os materiais necessários para a realização do projeto, são eles:

- 2 arduinos UNO;
- 2 protoboards;
- 1 potênciometro;
- 1 display de LCD;
- 1 sensor ultrassônico HC-SR04;
- 32 jumpers;
- 1 LED azul;
- 1 LED vermelho;
- 1 LED amarelo;
- 3 resistores de 220 Ω;
- 1 resistor de 1 K Ω;

Primeiramente, para construção do sistema foram realizadas pesquisas em fóruns de tecnologia, vídeos no youtube e documentação do arduino, para o entendimento de como conectá-lo aos dispositivos e como programar-los.

Em seguida, foram realizadas as conexões dos dispositivos ao arduino no simulador tinkercad.

Após isso, foi realizada a programação de ambos os arduinos.

Logo após, foi montado o circuito físico.

Mostrar a figura e falar sobre conexões, etc...

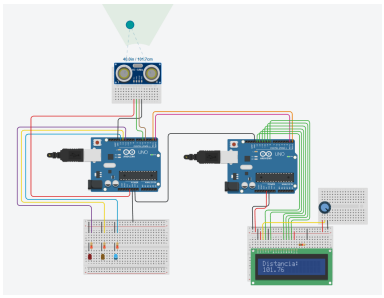

Fig. 1. Esquematico arduino.

IV. Resultados e Discurssões

A. Montagem do circuito

B. Código Arduino 1

Falar sobre o código do arduino 1, mostrando coisas aprendidas durante sua produção.

C. Código Arduino 2

Falar sobre o código do arduino 2, mostrando coisas aprendidas durante sua produção.

V. Conclusão

Dar um fechamento ao trabalho.

References

[1] M. Young, "The technical writer's handbook: Writing with style and clarity. mill valley," 1989.
[2] G. Eason, B. Noble, and I. N. Sneddon, "On certain integrals of lipschitz-hankel type involving products of bessel functions," *Philosophical Transactions of the Royal Society of London. Series A, Mathematical and Physical Sciences*, vol. 247, no. 935, pp. 529–551, 1955.
[3] J. Clerk, "Maxwell, a treatise on electricity and magnetism, vol. 2," 1892.
[4] I. Jacobs, "Fine particles, thin films and exchange anisotropy," *Magnetism*, pp. 271–350, 1963.
[5] R. Nicole, "" title of paper if you know" , unpublished."
[6] K. Elissa, "" title of paper with only first word capitalized," j. name stand. abbrev., in press."
[7] T. Yorozu, M. Hirano, K. Oka, and Y. Tagawa, "Electron spectroscopy studies on magneto-optical media and plastic substrate interface," *IEEE translation journal on magnetics in Japan*, vol. 2, no. 8, pp. 740–741, 1987.

VI. MODELOS

Before you begin to format your paper, first write and save the content as a separate text file. Complete all content and organizational editing before formatting. Please note sections **??**–VI-C below for more information on proofreading, spelling and grammar.

Keep your text and graphic files separate until after the text has been formatted and styled. Do not number text heads—LaTeX will do that for you.

A. Equations

Number equations consecutively. To make your equations more compact, you may use the solidus (/), the exp function, or appropriate exponents. Italicize Roman symbols for quantities and variables, but not Greek symbols. Use a long dash rather than a hyphen for a minus sign. Punctuate equations with commas or periods when they are part of a sentence, as in:

$$a + b = \gamma \tag{1}$$

Be sure that the symbols in your equation have been defined before or immediately following the equation. Use "(1)", not "Eq. (1)" or "equation (1)", except at the beginning of a sentence: "Equation (1) is . . ."

B. LaTeX-Specific Advice

Please use "soft" (e.g., `\eqref{Eq}`) cross references instead of "hard" references (e.g., `(1)`). That will make it possible to combine sections, add equations, or change the order of figures or citations without having to go through the file line by line.

Please don't use the `{eqnarray}` equation environment. Use `{align}` or `{IEEEeqnarray}` instead. The `{eqnarray}` environment leaves unsightly spaces around relation symbols.

Please note that the `{subequations}` environment in LaTeX will increment the main equation counter even when there are no equation numbers displayed. If you forget that, you might write an article in which the equation numbers skip from (17) to (20), causing the copy editors to wonder if you've discovered a new method of counting.

BibTeX does not work by magic. It doesn't get the bibliographic data from thin air but from .bib files. If you use BibTeX to produce a bibliography you must send the .bib files.

LaTeX can't read your mind. If you assign the same label to a subsubsection and a table, you might find that Table I has been cross referenced as Table IV-B3.

LaTeX does not have precognitive abilities. If you put a `\label` command before the command that updates the counter it's supposed to be using, the label will pick up the last counter to be cross referenced instead. In particular, a `\label` command should not go before the caption of a figure or a table.

Do not use `\nonumber` inside the `{array}` environment. It will not stop equation numbers inside `{array}` (there won't be any anyway) and it might stop a wanted equation number in the surrounding equation.

C. Some Common Mistakes

- The word "data" is plural, not singular.
- The subscript for the permeability of vacuum μ_0, and other common scientific constants, is zero with subscript formatting, not a lowercase letter "o".
- In American English, commas, semicolons, periods, question and exclamation marks are located within quotation marks only when a complete thought or name is cited, such as a title or full quotation. When quotation marks are used, instead of a bold or italic typeface, to highlight a word or phrase, punctuation should appear outside of the quotation marks. A parenthetical phrase or statement at the end of a sentence is punctuated outside of the closing parenthesis (like this). (A parenthetical sentence is punctuated within the parentheses.)
- A graph within a graph is an "inset", not an "insert". The word alternatively is preferred to the word "alternately" (unless you really mean something that alternates).
- Do not use the word "essentially" to mean "approximately" or "effectively".
- In your paper title, if the words "that uses" can accurately replace the word "using", capitalize the "u"; if not, keep using lower-cased.
- Be aware of the different meanings of the homophones "affect" and "effect", "complement" and "compliment", "discreet" and "discrete", "principal" and "principle".
- Do not confuse "imply" and "infer".
- The prefix "non" is not a word; it should be joined to the word it modifies, usually without a hyphen.
- There is no period after the "et" in the Latin abbreviation "et al.".
- The abbreviation "i.e." means "that is", and the abbreviation "e.g." means "for example".

An excellent style manual for science writers is [1].

D. Figures and Tables

a) Positioning Figures and Tables: Place figures and tables at the top and bottom of columns. Avoid placing them in the middle of columns. Large figures and tables may span across both columns. Figure captions should be below the figures; table heads should appear above the tables. Insert figures and tables after they are cited in the text. Use the abbreviation "Fig. 1", even at the beginning of a sentence.

TABLE I
TABLE TYPE STYLES

Table Head	**Table Column Head**		
	Table column subhead	***Subhead***	***Subhead***
copy	More table copy[a]		

[a]Sample of a Table footnote.

Figure Labels: Use 8 point Times New Roman for Figure labels. Use words rather than symbols or abbreviations when writing Figure axis labels to avoid confusing the reader. As an example, write the quantity "Magnetization", or "Magnetization, M", not just "M". If including units in the label, present

them within parentheses. Do not label axes only with units. In the example, write “Magnetization (A/m)” or “Magnetization {A[m(1)]}”, not just “A/m”. Do not label axes with a ratio of quantities and units. For example, write “Temperature (K)”, not “Temperature/K”.

AGRADECIMENTOS

The preferred spelling of the word “acknowledgment” in America is without an “e” after the “g”. Avoid the stilted expression “one of us (R. B. G.) thanks . . .”. Instead, try “R. B. G. thanks. . .”. Put sponsor acknowledgments in the unnumbered footnote on the first page.

REFERÊNCIAS

Please number citations consecutively within brackets [2]. The sentence punctuation follows the bracket [3]. Refer simply to the reference number, as in [4]—do not use “Ref. [4]” or “reference [4]” except at the beginning of a sentence: “Reference [4] was the first . . .”

Number footnotes separately in superscripts. Place the actual footnote at the bottom of the column in which it was cited. Do not put footnotes in the abstract or reference list. Use letters for table footnotes.

Unless there are six authors or more give all authors’ names; do not use “et al.”. Papers that have not been published, even if they have been submitted for publication, should be cited as “unpublished” [5]. Papers that have been accepted for publication should be cited as “in press” [6]. Capitalize only the first word in a paper title, except for proper nouns and element symbols.

For papers published in translation journals, please give the English citation first, followed by the original foreign-language citation [7].