

Object Detection Based Behaviour with YOLO on Thymio

Francesco Saverio Zuppichini¹ and Alessia Ruggeri²

Abstract—The ability of classify in booth space and domain objects is encoded in an enormous variety of species on the planet. Recently, deep learning approaches has been develop to make machine able to mimic the same task with interesting results. In this paper we use a small two wheels robots, Thymio, with a frontal camera mounted to act based on the object detected in the surrounding.

I. INTRODUCTION

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¹H. Kwakernaak is with Faculty of Electrical Engineering, Mathematics and Computer Science, University of Twente, 7500 AE Enschede, The Netherlands h.kwakernaak@papercept.net

²P. Misra is with the Department of Electrical Engineering, Wright State University, Dayton, OH 45435, USA p.misra@ieee.org

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Define abbreviations and acronyms the first time they are used in the text, even after they have been defined in the abstract. Abbreviations such as IEEE, SI, MKS, CGS, sc, dc, and rms do not have to be defined. Do not use abbreviations in the title or heads unless they are unavoidable.

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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

$$\alpha + \beta = \chi \quad (1)$$

Note that the equation is centered using a center tab stop. 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 . . .

D. 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, semi-/colons, 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.)
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- 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.

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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
AN EXAMPLE OF A TABLE

One	Two
Three	Four

We suggest that you use a text box to insert a graphic (which is ideally a 300 dpi TIFF or EPS file, with all fonts embedded) because, in an document, this method is somewhat more stable than directly inserting a picture.

Fig. 1. Inductance of oscillation winding on amorphous magnetic core versus DC bias magnetic field

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*.

V. CONCLUSIONS

A conclusion section is not required. Although a conclusion may review the main points of the paper, do not replicate the abstract as the conclusion. A conclusion might elaborate on the importance of the work or suggest applications and extensions.

APPENDIX

Appendixes should appear before the acknowledgment.

ACKNOWLEDGMENT

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.

References are important to the reader; therefore, each citation must be complete and correct. If at all possible, references should be commonly available publications.

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