Development of a special purpose mobile wheeled robot for agro-industrial complex with closed greenhouses*

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***Abstract*—**

I. INTRODUCTION

A. Close agroindustry challenges

B. Literature overview

C. Related work

II. PURPOSE EXPLANATION

III. MECHANICS PART

A. Frame design

B. Wheel module with active dumping

C. Rack for camera

D. Antihumidity solution

IV. ELECTROMECHANICS PART

A. motor wheel choosing

As we know [1] for understanding which motor we need choose for our robotics platform, the understanding of maximum capacity and robot weight itself needed. Actually the problem of calculating general platform weight when we don't know weight of it's parts exactly usually solving by iterative method based on our engineering suggestion. We can just choose motor as potential and try to calculate general weight. When we know max robot weight and max capacity we can make convert it in torque which we need for each wheels If we see that the difference between required torque and nomonal torque is negative it is mean that motors which will choosed is not enough and we need choose motor with more nominal torque

V. ELECTRONICS PART

A. Power battery choosing

1) Safety description:

2) :

B. System architecture

C.

VI. EMBEDDED PART

VII. SENSORICS

A. navigation&localization setup

1) Visual sensors:

2) inertial sensor:

B. Greenhouse detection setup

1) Visual sensors:

2) Lenses choosing:

C. Computer selection

D. Architecture of submodule communications

E. Headings, etc

Text heads organize the topics on a relational, hierarchical basis. For example, the paper title is the primary text head because all subsequent material relates and elaborates on this one topic. If there are two or more sub-topics, the next level head (uppercase Roman numerals) should be used and, conversely, if there are not at least two sub-topics, then no subheads should be introduced. Styles named Heading 1, Heading 2, Heading 3, and Heading 4 are prescribed.

F. Figures and Tables

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.

VIII. 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

REFERENCES

[1] M. Shell. (2002) IEEEtran homepage on CTAN. [Online]. Available: http://www.ctan.org/tex-archive/macros/latex/contrib/supported/IEEEtran/