



1st INTERNATIONAL CONFERENCE ON FOOD, ENVIRONMENT AND CULTURE

Theme: "Fostering International Cooperation for Sustainable
Development through Multidisciplinary RDE "



PORTABLE BABY INCUBATOR

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OBJECTIVES OF THE STUDY

Design and construct a
Portable Baby Warmer
Incubator for ambulatory
used.

Specification
Portability



Accuracy
Usefulness
Safety

user's manual
of the project.

FRAMEWORK

INPUT

PROCESS

OUTPUT

Knowledge
Skills
Tools and
Equipment
Materials
Labor

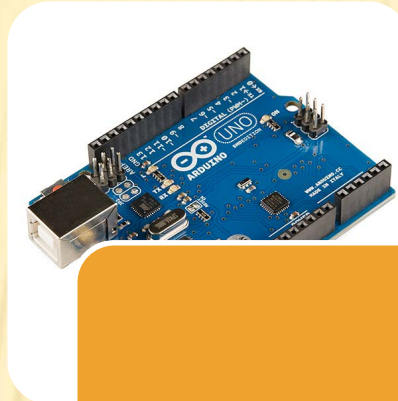
Conceptualization
Planning
Design Layout
Canvassing
Purchasing
Construction
Test/Evaluation

Portable
Baby
Incubator

TEMPERATURE CONTROL BLOCK DIAGRAM



Sensing
Element

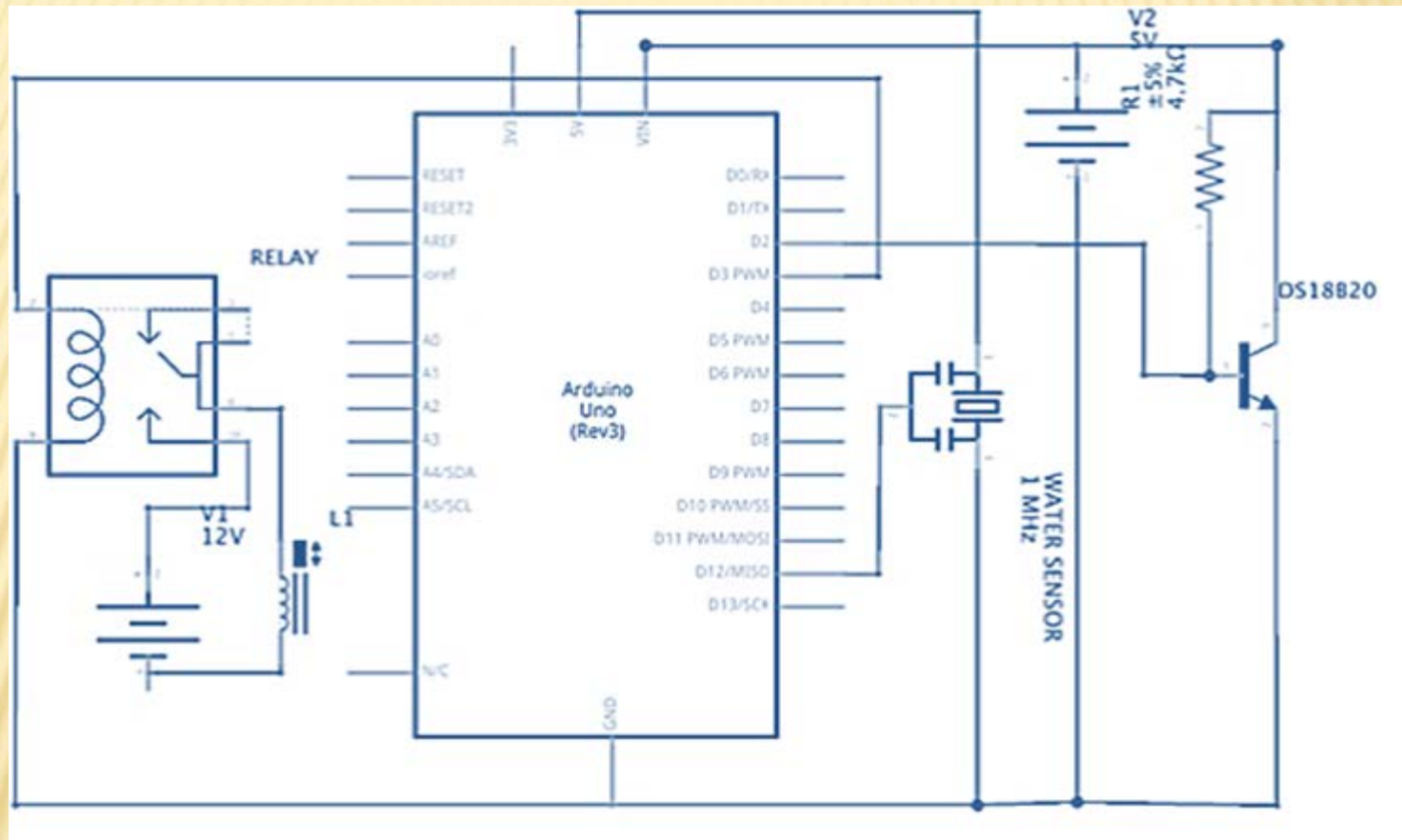


Controller

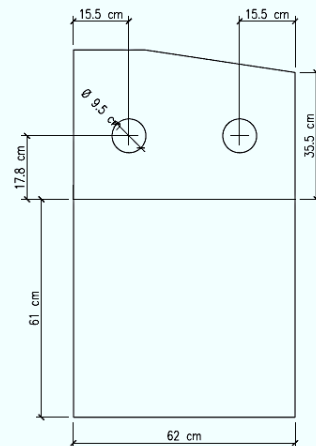
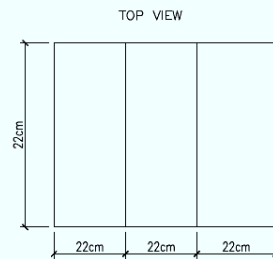


Final
Control
Element

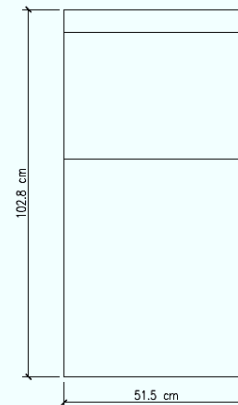
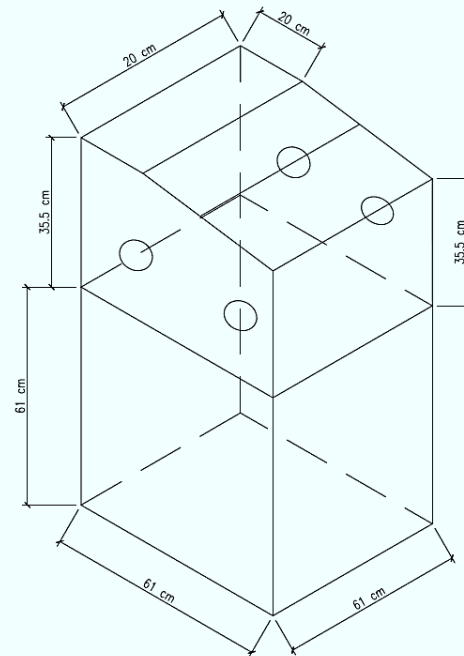
METHODOLOGY (PROJECT DESIGN)



ORTHOGRAPHIC AND ISOMETRIC DRAWING OF THE INCUBATOR



RIGHT SIDE VIEW



FRONT VIEW

CONSTRUCTION OF THE PROJECT



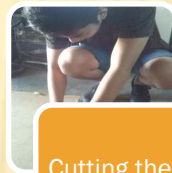
Preparation
of the
Tools and
Equipment



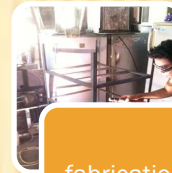
Cutting the
Angle Bar



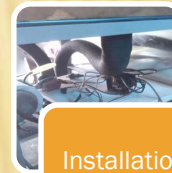
Grinding the
Sheet of
Angle Bar



Cutting the
Fiber Glass



fabrication
of the frame



Installation
of different
components



Testing of
the project

RESULTS AND DISCUSSION

Findings

1. The project specifications have been found to be congruent to commercialized incubator. On project portability, it was found out that the incubator could be operated from one of two power sources. Two sources are used; if the AC is not available it switches to DC.
2. The project has been tested and proven useful by the Nursing Department of Batangas State University. It has been proven to be accurate in sustaining the needed temperature, and safe for the user after testing and evaluation.
3. The instruction manual of the project was developed and readily available for use.



RESULTS AND DISCUSSION

Conclusion

Based on the findings, the following conclusions were drawn:

- ✖ The Portable Baby Warmer Incubator can be used for in-house and ambulance for transport.
- ✖ The project is useful for instructional purposes.
- ✖ The user's manual is important in the operation and maintenance of the project.

RESULTS AND DISCUSSION

Recommendation

- ✗ The future researcher can include an alternate power source like solar power system.
- ✗ Develop an advanced portable baby warmer incubator with humidity measurement and control mechanism in the design.
- ✗ The researchers recommend the use of rollers that has lock to secure the safety of the Incubator.
- ✗ The future researchers must use rollers that have spring to reduce discomfort in travelling.
- ✗ The future researchers must use rubber to cover metal in the bed and ensure that the rubber can sustain heat and will last long.
- ✗ A collaborative research on the technology particularly in healthcare be undertaken with the very purpose of improving lives.