COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

# AUTOMATED DIRECT SEEDING MACHINE

A Thesis
Presented to the Faculty of the
College of Communication and Information Technology
President Ramon Magsaysay State University
Iba, Zambales

In partial fulfilment of the requirements for the Degree
Bachelor of Science in Computer Engineering


By:

**Claire Marie V. Rabaca**
**Maria Cielo C. Manalo**
**Kiecy A. Molvizar**
**Ella M. Olipane**


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COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

## CERTIFICATION

This thesis entitled **"Automated Direct Seeding Machine"** prepared and submitted by **Maria Cielo C. Manalo, Kiecy A. Molvizar, Ella M. Olipane** and **Claire Marie V. Rabaca** in partial fulfilment of the requirements for the degree **Bachelor of Science in Computer Engineering**, has been examined and recommended for Oral Examination.

**ENGR. BRYAN CARLOS B. ACAIN**
Adviser

## APPROVAL SHEET

Approved by the Panel of Examiners on Oral Examination on May 3, 2019.

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Program Chair, BSCpE

Accepted as partial fulfillment of the requirements for the degree

**Bachelor of Science in Computer Engineering**

5/27/2019
Date

**MENCHIE A. DELA CRUZ, Ph. D.T.E**
Dean

## ABSTRACT

Automated Direct Seeding Machine (ADSM) is a device capable of distributing seeds rate in a straight line with uniform depth in the furrow and with uniform spacing between the seeds. Any fall tillage must leave the soil surface compact and level to preserve soil moisture. This device was designed in such a way less labor required to operate, spacing efficiencies, and minimum skidding percentage and proper seed rate. It is suitable in loam and clay soil. It has four (4) wheels, water sprinkler nozzle, paddy wheel type, furrow opener, furrow closer and seed bin.

The circuit was constructed and the testing was done to make sure that the system is working properly based on the process needed to obtain. A sound alarm as a warning to the user will work one the seed bin or water container is empty.

The researchers have used descriptive research method wherein the study focused on the current situation and purposive sampling in determining the respondents on the study.

The design of the ADSM was pre-determined and was followed in the development of the device. It uses a motor using a direct current. It showed that the device could function sufficiently in well-cultivated farmland and other related working conditions. The device showed efficiency in its performance according to the functions it is designed.

The evaluation of the device quality of Automated Direct Seeding Machine is significantly high. Respondents rated the device as Very Good (VG) in Usability and Portability. The evaluation of the acceptability of Automated Direct Seeding Machine is significantly high. Respondents rated the device Acceptable in functionality and ease of use.

After the development of the ADSM, the intended users used and tested the device.