

**TOOLS DESIGN TO MEASURE THE NITROGEN (n)
FERTILIZER ON CORN BASED
MICROCONTROLLER**

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ABSTRACT

One of the factors of growth of corn plants is the fertilizer that suits your needs, identification of needs nitrogen fertilizer on corn can be done by measuring the level of green leaves using Color Chart Leaves manually, in this design i want to create a tool that can automatically measure the level of the green color of leaves corn, using TCS3200 color sensor combined with a microcontroller Arduino Uno board, information on the results of the measurements displayed on LCD Micro 2x16 bit. of the results of the activities, the design tool can measure the color of the leaves of maize in accordance with the Leaf Colour Chart manually, but still there is an error value by 18%. This is due to the voltage drop across the battery.

Keyword : *Leaf Corn, Arduino Uno, TCS3200 Sensor, LCD Mikro 2x16 bit*