# ABSTRACT

Eddy Current Testing (ECT) is one of the methods from Non-Destructive Testing (NDT) which using field magnetic to see the interaction between sources of the magnetic field and the tested object. In Practice, Eddy Current Testing (ECT) requires coil to be used as a scanner for detecting crack or defect on the surface of the object. To do the testing, we need to induct current on the coil to get the position also the coordinate to make sure the defect and cracked area. So, defect objects can be immediately identified on its position.

This research use source of the light will be combined in one place with the coil so that the coil and the source of light have the same coordinate points. In this study, for finding the position of the light we need a sensor called LDR (*Light Dependent Resistor)*. This LDR sensor is used to detect the movement of light coming from a light source so that the sensor will receive light according to the light it receives.

To find out the position of the coordinates of the X and Y axes, the authors uses center of gravity method. From the experiments that have been tried out at 10 coordinate points, the average value of accuracy on the x-axis is 99.6% and the y-axis accuracy is 99.7% with the resolution on the tool is 2,5 cm.

Keywords: Eddy Current Testing, Non-Destructive Testing, Light Dependent Resistors, emphasis method.