COMPUTER AIDED LABORATORY

NAME : RACHAMALLA SAI ROHAN

ROLL NO : 122101030

PROJECT : WIRE BREAK INDICATOR CIRCUIT

INTRODUCTION :

When one deal with a complicated circuits it becomes more complicated to know where the error took place. In circuits generally there will be large number of wires which carries huge amount of current load, if there is a wire cut it leads to danger and economical loss.

So to eradicate the problems due to wire cut , one need to find a solution. For that wire break indicator is a good option. When there is a wire cut in complex circuits, one need to identify the wire cut quickly. So, if we make wire break indicator circuit then we can easily identify that wire and solve error. It is very useful for students and researchers who deal with a complex circuits .

COMPONENTS:

1) IRFZ44N MOSFET -1
2) LED-1
3) 33k(RESISTOR)-1
4) 150k(RESISTOR)-1
5) WIRE

WORKING:

In the circuit when the power is given current starts flowing from 12V to ground through the loop wire. When we cut the wire, the current start flowing from 12V to gate pin of a MOSFET. Now MOSFET start its functioning. The current flows from drain to source. Now LED will glow. This indicates where wire has been broken. So, that problem can be resolved quickly.

WIRE BREAK INDICATOR CIRCUIT SCHEMATIC DIAGRAM: