

# **EP PROJECT MID PROGRESS REPORT**

GROUP-19

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# PROBLEM STATEMENT

- We are going to design a PCB layout for FM Transmitter using EAGLE software which we built on bread board in FCOM project



# OBJECTIVES

- Design in an optimized way with
  - i) proper spacing in between components
  - ii) proper alignment of components
  - iii) proper interconnections without any cross talks

# WORK DONE SO FAR

- We have completed the schematic part in EAGLE SOFTWARE .
- We performed ERC for the schematic and found zero errors.
- Now we have to desing PCB layout for the same schematic circuit.
- This is our target for the end project evaluation.

The screenshot displays the Eagle 9.6.2 software interface. The main window shows a schematic diagram of an FM transmitter. The circuit includes a microphone input connected to a 100k resistor (R5) and a 0.1uF capacitor (C1). The signal path continues through two 2N3904 transistors (T1 and T2). Various resistors (R1-R7) and capacitors (C2-C5) are used for biasing and coupling. The final output is connected to a 10-inch antenna. An ERC Errors dialog box is open, indicating that the board and schematic are consistent with zero errors. The top menu bar and toolbar are visible, showing standard CAD functions like File, Edit, Draw, View, Tools, Library, Options, Window, and Help.

**FM TRANSMITTER**

**MICROPHONE**

**ANTENNA**

**ERC Errors**

Type: Board and schematic are consistent  
Errors (0)  
Warnings (0)  
Approved (0)

Sheet: Module

Object1

Filters: None

Expr: (ObjectType = Part)

Save As:

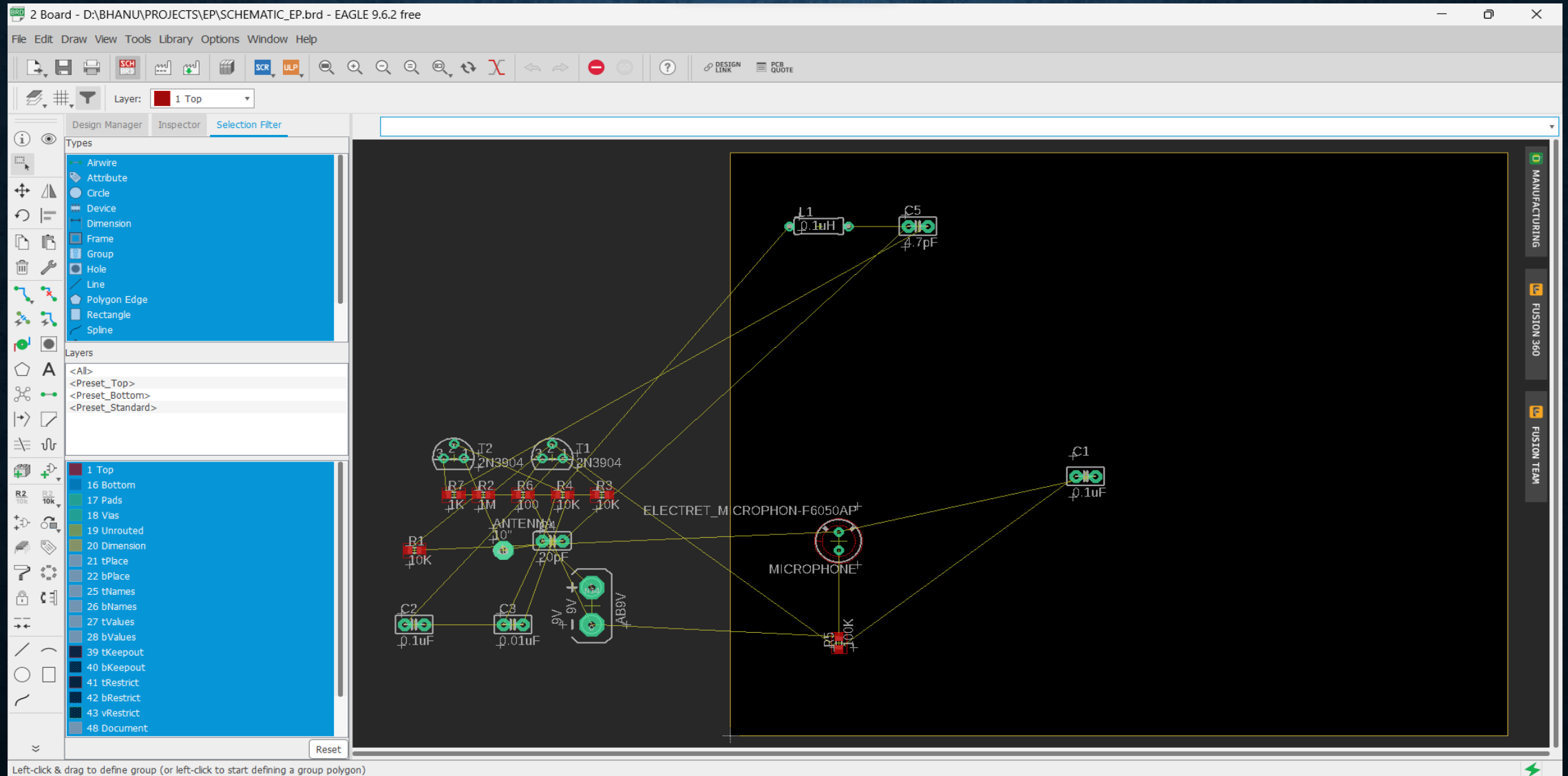
Results

Type	Name	Value	X1	Y1
R7	1K	3.8	2	R-US_R0603 (R
R5	100K	1.2	1.9	R-US_R0603 (R
R4	10K	2.8	3.2	R-US_R0603 (R
R6	100	1.8	1.9	R-US_R0603 (R
T1	1.5	2.5	2N3904	
R2	1M	1.2	3.2	R-US_R0603 (R
T2	3.7	2.7	2N3904	
R1	10K	0.5	3.2	R-US_R0603 (R
R3	10K	1.8	3.2	R-US_R0603 (R
C3	0.01uF	3.1	3.3	C2.5/2 (C)
L1	0.1uH	4.2	3.3	L-US0207/7 (L-I
X_1	1.8	1.4	GND	
C2	0.1uF	2.2	2.7	C2.5/2 (C)
Y_2	2.1	4.8	GND	

Left-click & drag to define group (or left-click to start defining a group polygon)



# PRESENT PCB LAYOUT



# CONTRIBUTIONS

- As the both schematic part and layout are important, we both are doing the complete work together and both are aware of using EAGLE software.

**THANK YOU**