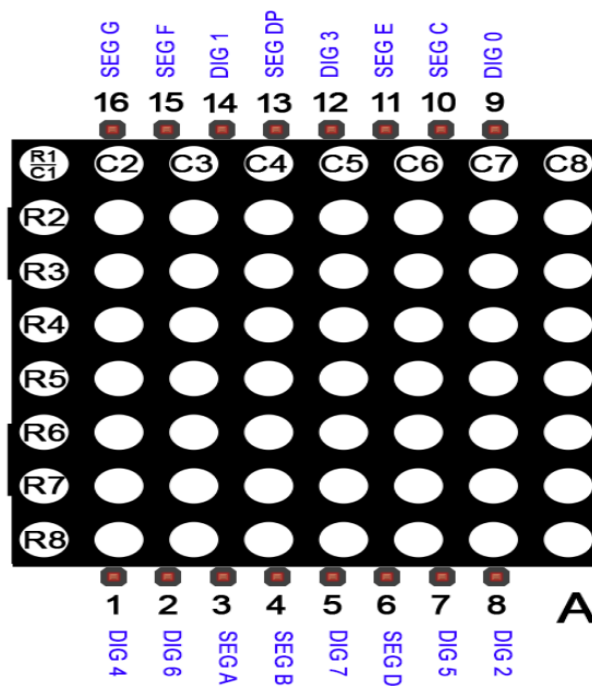# Hardware Require:

- ESP32
- 8x8 Dot Matrix LED
- MAX7219 LED Driver
- 0.1uF Non-Polarize Capacitor
- 10uF Polarize Capacitor
- 10k Resistor
- 5 Jumper Wire
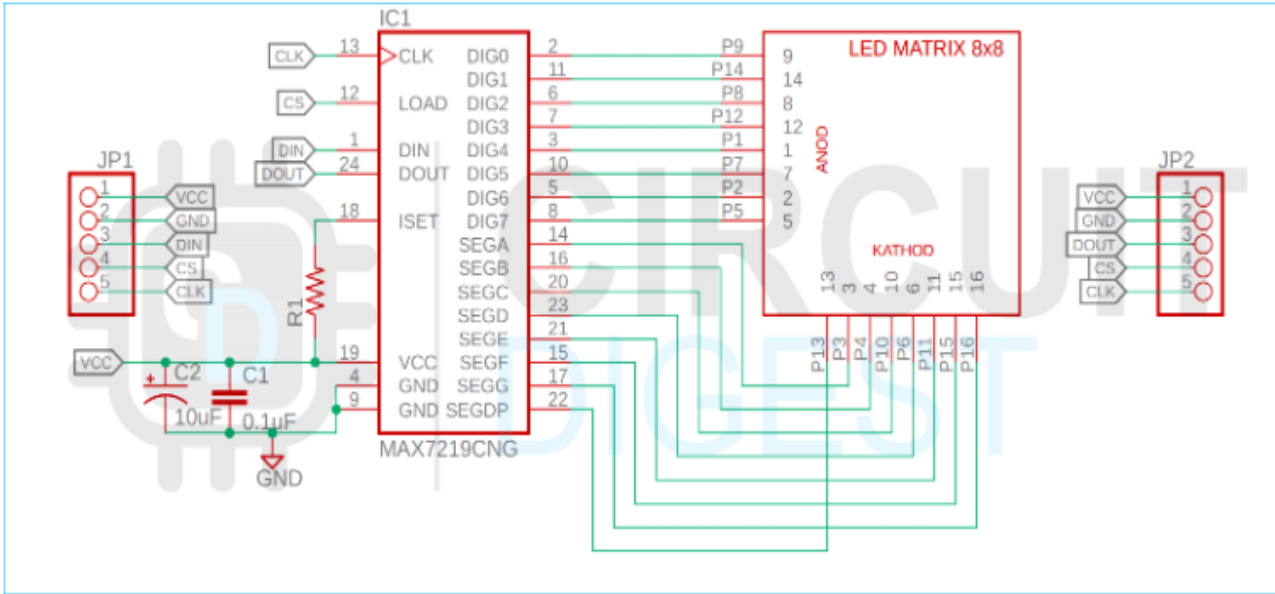
- **8x8 Dot Matrix LED pinout:**
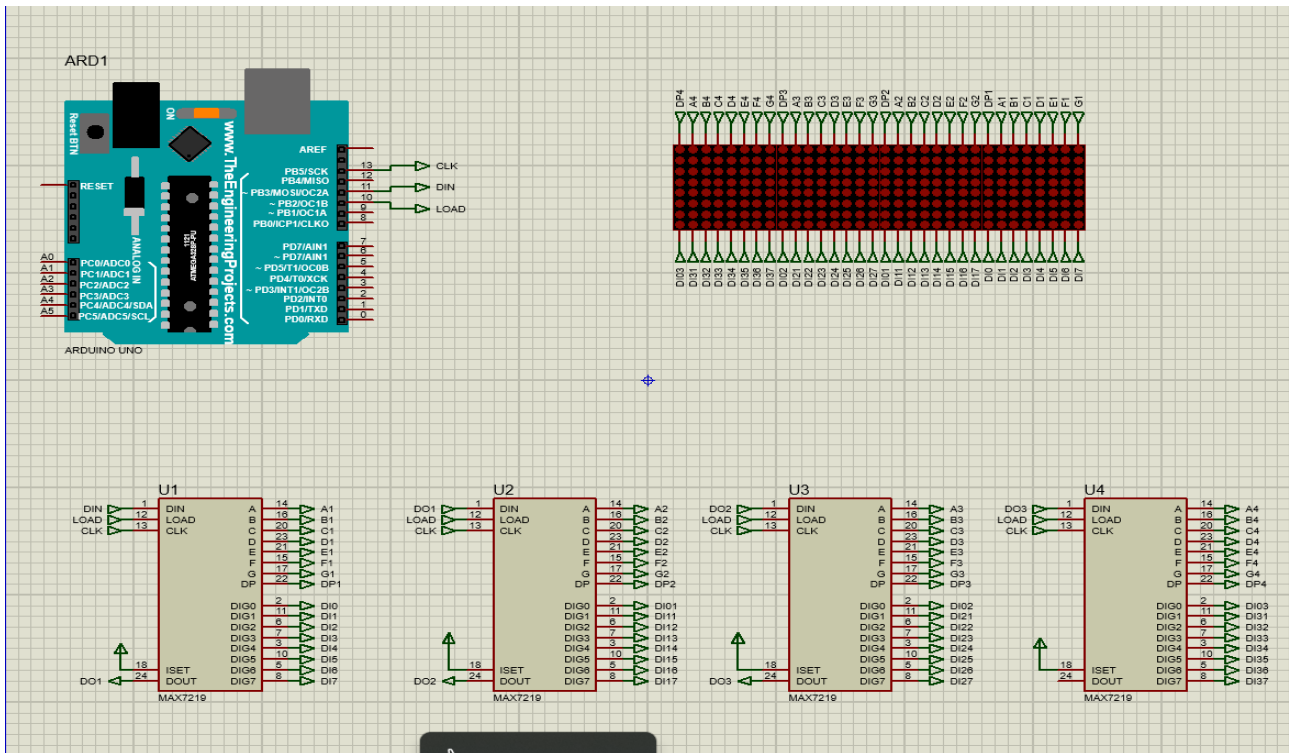

- **MAX7219 LED Drive IC Datasheet:**

https://www.analog.com/media/en/technical-documentation/data-sheets/MAX7219-MAX7221.pdf

Hardware Connection:

1) **Single 8x8 Dot matrix LED connection to MAX7219 LED Driver**

2) **4 8x8 Dot matrix LED connect to MAX7219 LED Driver and Drive connect to MCU**

Proteus 8 Simulation Software:

- **Proteus 8.13 SPO PRO.zip**

Example Code Flash in Arduino uno:

- **This zip file is Proteus Project:**

  Dot-Matrix-Proteus.zip

- **This zip file is Example code:**

  8x8 Dot-Matrix-code.zip