

**Afficheur led 7 segments pdf**

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In this project I'll explain you how to turn the desired number in LED display by using keypad.Apparatus:Keypad Arduino uno Jumper wire 7 segment ledconnect 4 row to arduino's digital pin 2,3,4,5 and column to 6,7,8. for display connectionConnect "a" to digital pin 0 of your Arduino board. Connect "b" to digital pin 1 of your Arduino board.

Connect "c" to digital pin 9 of your Arduino board. Connect "d" to digital pin 10 of your Arduino board. Connect "e" to digital pin 11 of your Arduino board. Connect "f" to digital pin 12 of your Arduino board. Connect "g" to digital pin 13 of your Arduino board. Upload the above code to your Arduino board.Attachments? seg led by keypad.ino Lets give input from the keypad and check it whether it is working properly or not.Participated in the Makerspace Contest 2017 In order for our project to run we need to push code to the Arduino to control the electrical components. Libraries are included in a zip file, and the folders inside must be placed in the main Arduino library folder on your computer after unzipping. Included are libraries for the IR sensor, stepper motor, and the LED display from Adafruit. The attached zip file titled Arduino Code contains the folder with the Arduino sketch needed to run the code. This simply needs to be flashed to the Arduino in order for the code to run. #include #include #include #include #include #include #define PIN 6 //LED Matrix input or Pin 6#define gearratio 64 /1:64 gear ratio for stepper motor #define BOARDCOUNT 1 // number of LED matrices Adafruit\_NeoPixel strip = Adafruit\_NeoPixel(64 \* BOARDCOUNT, PIN, NEO\_GRB + NEO\_KHZ800); //Sets up the number of LED nodes double brightness = .1; // reduce brightness for the LED Matrixconst int stepsPerRevolution = 2048; //2048 steps turn the motor one revolution Stepper myStepper(stepsPerRevolution, A0, A1, A2, A3); //4-wire stepper on pins A0-A3int RECV\_PIN = 9; //IR Receiver connected to Pin 9 Irecv irrecv(RECV\_PIN); //Create a IR receiver object decode results; //Create a decode results objectAdafruit\_NeoMatrix matrix = Adafruit\_NeoMatrix(8, 8, PIN, //Initiates an 8x8 LED Matrix NEO\_MATRIX\_TOP + NEO\_MATRIX\_BOTTOM + NEO\_MATRIX\_PROGRESSIVE, NEO\_GRB + NEO\_KHZ800);const uint16\_t colors[8] = { matrix.Color(255, 0, 0), matrix.Color(0, 255, 0), matrix.Color(0, 0, 255) }; //Defines LED Matrix ColorsThe code works by establishing what libraries are needed and defining all the pins used and variables required. It then dims the brightness of the LED matrix, sets up the motor revolution, and creates an object for the IR sensor. The LED Matrix is then initialized and the colors are set up void setup() { myStepper.setSpeed(0.15\*gearratio); //the motor appears to be geared down 1/64. //meaning that the speed needs to be set 64x. irrecv.enableRIn(); //Enables the IR device matrix.begin(); //Starts the LED Matrix with a blank display matrix.setTextWrap(false); matrix.setBrightness(40); matrix.setTextColor(colors[0]); } int x = matrix.width(); //Establishes X as the matrix width int pass = 0; //Establishes pass variable int flag=0; //variable to establish when the device is powered on via remoteIn the setup section, the stepper gear ratio is set up to control the speed, the IR sensor is enabled and the matrix is set to a blank display. Several variables are also established which are used later for the matrix and to determine when the power button was pressed void loop() { if (irrecv.decode(&results)) //has a transmission been received? if (results.value == 3584887633) { //If the power button is pressed the flag variable changes and the main program executes flag=1; } } irrecv.resume(); // Receive the next value from the IR Sensor The project starts with a blank LED display, and the IR sensor is activated and waits for the power button to be pushed. After the power button is pushed, the main loop of the project is entered. The number in the results.value space is the decoded result from the power button on a Panasonic Audio System remote, however another remote can be used and you will need to decode the remote first in order to obtain the numerical numbers associated with your buttons.if (flag==1) //If flag is equal to 1, then the power button was pressed{ if (irrecv.decode(&results)) //has a transmission been received? Serial.println(results.value); //If yes, interpret the received commands... if (results.value == 2354352215) //If the "+" button is pressed do the following: matrix.fillRect(0, 0, matrix.width(), matrix.height()); //Clears the LED matrix matrix.setCursor(2, 0); //Sets the cursor position matrix.setTextColor(colors[2]); //Sets the text color matrix.print(F("A")); //Prints the "A" character to the screen matrix.show(); //Enables the matrix delay(100); //Delays the matrix myStepper.step(stepsPerRevolution); //Rotates the stepper motor if the "+" or "-" button is hit on the remote, the mushroom rotates in opposite directions and a question mark is displayed on the matrix. The example code above shows the process for the "+" button being pressed, and the code for the "+" is nearly identical. if (results.value == 3584887633) //If the power button is pressed a Rainbow lights up colorWipe(strip.Color(brightness \* 255, 0, 0), 5); // Red colorWipe(strip.Color(0, brightness \* 255, 0), 5); // Green colorWipe(strip.Color(0, 0, brightness \* 255), 5); // Blue rainbow(5); rainbowCycle(5); irrecv.resume(); // Receive the next value from the IR Sensor } matrix.fillRect(0, 0, matrix.width(), matrix.height()); //If input on the remote, clear the matrix screen matrix.setCursor(x, 0); //Sets the cursor position to variable 'x' matrix.print(F("MAKE")); //Prints the word "MAKE" to the matrix if(-x < -36) { //Cycles the cursor position to make text appear to scroll x = matrix.width(); if(+x+pass >= 3) pass = 0; //Cycles through three colors for the text display matrix.setTextColor(colors[pass]); } matrix.show(); //Prints text to matrix delay(100); //Establishes a delay } Whenever the power button is pressed a rainbow appears and cycles through several colors and patterns. After this process, the word "MAKE" then scrolls across the screen in rotating colors unless another button is hit on the remote. The power button is hit again the rainbow display repeats. This process repeats indefinitely as long as the Arduino remains powered. The code below are functions that are called in order to execute the rainbow display that appears when the power button is pressed. // Fill the dots one after the other with a colorvoid colorWipe(uint32\_t c, uint8\_t wait) { for(uint16\_t i=0; i<wait; i++) { uint16\_t t = i; j: for(j=0; j<