

```

/*
Components
Arduino Uno R3
Shift Register 74HC595N
Wires
8 LEDs
8 220 ohm Resistors
Breadboard
*/
int latchPin = 8;//Pin 12
int clockPin = 12;//Pin 11
int dataPin = 11;//Pin 14
int x=0;
void setup() {
  Serial.begin(9600);
  pinMode(latchPin, OUTPUT);
  pinMode(clockPin, OUTPUT);
  pinMode(dataPin, OUTPUT);
}
void loop(){
  digitalWrite(latchPin,LOW);
  for(x=0;x<=255;x++){
    //Increments variable x from 0 to
255
    shiftOut(dataPin, clockPin, MSBFIRST,x); //Performs Bit shift operation
    digitalWrite(latchPin,HIGH);
    delay(1000);
  }
}

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int dataPin = 11;//Pin 14
int x=0;
void setup() {
  Serial.begin(9600);
  pinMode(latchPin, OUTPUT);
  pinMode(clockPin, OUTPUT);
  pinMode(dataPin, OUTPUT);
}
void loop(){
  while (!Serial.available()) {}
  digitalWrite(latchPin,LOW);
  x=Serial.parseInt();          //Receives Input from Serial Monitor
  if(x>0 && x<256){
    Serial.print("Received : ");
    Serial.println(x);
    shiftOut(dataPin, clockPin, MSBFIRST,x); //Performs bit shift operation
  }
  if(x>=256&&x!=0){
    x=0;
    shiftOut(dataPin, clockPin, MSBFIRST,x);
    Serial.println("Invalid Number");
    Serial.println("Reset");
  }
  digitalWrite(latchPin,HIGH);
  delay(1000);
}

```