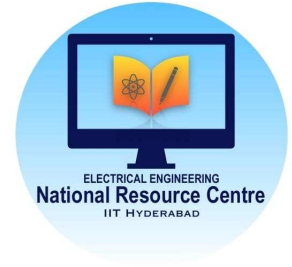




C programming through AVR-GCC



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Abstract—The objective of this manual is to introduce the student to the basic features of programming, like conditional statements, loops, function and arrays using pure C

1 COMPONENTS

Component	Value	Quantity
Breadboard		1
Resistor	$\geq 220\Omega$	1
Arduino	Uno	1
Seven Segment Display	Common Anode	1
Jumper Wires		10

TABLE 1.0

2 C PROGRAMMING

1. Connect the seven segment display to the arduino.
2. If-Else: Run the following program and test for dec=0 and dec=8.

```
wget https://raw.githubusercontent.com/gadepall/arduino/master/avr-gcc/cprog/codes/ifelse.c
```

3. Switch-case and Function: Write a function for writing a decimal number to the seven segment display.

```
wget https://raw.githubusercontent.com/gadepall/arduino/master/avr-gcc/cprog/codes/sevenseg_func.c
```

4. For loop: Use a for loop to implement a decade counter.

```
wget https://raw.githubusercontent.com/gadepall/arduino/master/avr-gcc/cprog/codes/loop.c
```

5. Arrays and Headers: Download and run the C code.

```
wget https://raw.githubusercontent.com/gadepall/arduino/master/avr-gcc/cprog/codes/array.c
```

```
wget https://raw.githubusercontent.com/gadepall/arduino/master/avr-gcc/cprog/codes/sevenseg.h
```

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