CIRC-01
Getting Started Large
Blinking LED

longer lead

5mm LED

330 ohm

to pin 13

to 5v

to Gnd
8 LED Fun (Multiple LED’s)

5mm LED

330 ohm resistor

to pin 2

to pin 3

to pin 4

to pin 5

to pin 6

to pin 7

to pin 8

to pin 9

to 5v

to Gnd

CIRC-02

longer lead

+ -
A Single Servo (Servos) to pin 9

Mini Servo

4.8v-6v Signal

CIRC-04

A Single Servo (Servos)

to 5v
to Gnd
CIRC-05
8 More LED’s
(74HC595 Shift Register)
Piezo Element

to pin 9

to 5v

to Gnd

CIRC-06
Music
Piezo Elements
CIRC-07

Button Pushing
(Pushbuttons)

- Push button to pin 2
- 10k ohm resistor (330 ohm longer lead)
  - to pin 3
  - to pin 13 then pin 9
- 10k ohm resistor
  - to 5v
  - to Gnd
Twisting (Potentiometer) to 5v to Gnd to pin analog 0

Potentiometer (variable resistor)

longer lead

330 ohm

to pin 13 then pin 9

to 5v
to Gnd

CIRC-08

Twisting (Potentiometer)
CIRC-09
Light
(Photocell)
10mV = 1 degree C (500 mV offset)

Thermometer (TMP36) to pin analog 0

to 5v

to Gnd

CIRC-10
Temperature
(TMP36 Precision Temperature Sensor)
Transistor (P2N2222A)

- Emitter
- Base
- Collector

10k ohm to pin 2

Diode

330 ohm to 5v

330 ohm to Gnd

CIRC-11

Larger Loads (Relays)
CIRC-12
Multi-Color Lights
(RGB LED's)

- 5mm RGB LED
- 330 ohm resistor
- Longest lead
- To 5v
- To Gnd
- To pin 9
- To pin 10
- To pin 11
- Common
- Red
- Green
- Blue
- 5mm RGB LED
- Longest lead
Mini Servo

4.8v-6v

Signal

to pin 9

CIRC-13
Measuring Bends
Flex Sensor

to 5v

to Gnd

to pin analog 0

10k ohm
5mm RGB LED

longest lead

330 ohm resistor

to 5v
to Gnd
to pin 9
to pin 10
to pin 11

to pin analog 0

soft-pot
circ-14
Fancy Sensing
Soft Potentiometer