Mechanical:

# Display models & tools

a few models for measurement & modelling practice

Resin dentures model

Resin detailed capybara

radius gauges

# Basic Mechanisms

a few spur gears

1x Planetary helical Gears

2x oval gears

1x crank and rocker mechanism

1x four-bar linkage

1x universal joint

2x latch mechanisms

1x geneva drive

1x worm gear

1x bevel gear

1x rack and pinion

1x lead screw

1x Pulley kit & string

# More complicated

1x escapement mechanism

1x iris eye mechanism

# Car

1x steering mechanism

1x gearbox

1x differential

1x v8 engine

1x spare crankshaft

Electrical:

# Basic components:

White, Yellow, Blue, Green, Red LED

multicolor LED

Photoresistor

Thermistor

**Diode (1N4007)**

**PN Transistor (PN2222)**

Small buttons

Active & Passive Buzzer

**Ceramic Capacitor (22pf, 104)**

**Electrolytic Capacitor (10UF, 100UF 50V)**

**Resistors (10R, 100, 220R, 330R, 1K, 2K, 5K1, 10K, 100K, 1M)**

**Inductors (1UH, 4.7UH, 6.8UH, 10UH, 22UH, 47UH, 68U, 100UH, 220UH, 330UH, 470UH, 1MH)**

Pin Header (40pin)

**Potentiometers & trimpots**

breadboards

jumper cables

perfboard

# ICs & Arduino

**Arduino Nano**

555 timers

LM358 op amps

Optocoupler IC 4N35

Shift Register IC 74HC595

# Modules

2 x Arduino joystick game controller module

2 x Infrared Sensor Receiver Module

2 x Head Sensor Module

2 x Temperature and Humidity Sensor Module

2 x Infrared Emitter Sensor Module

2 x 5V Relay Module

2 x Smart Car Obstacle Avoidance Sensor Infrared Sensor Optical Switch

2 x Heartbeat module for ARDUINO finger detection

2 x Microphone Sensitivity Sensor Module

2 x Metal Touch Sensor Module

2 x Flame Sensor Module

2 x 3-colour LED module

2 x Hunting Sensor Module

2 x Linear Hall Sensor

2 x Rotary Encoder Module

2 x Active Buzzer Module

2 x Magic Cup Module

2 x Small Passive Buzzer Module

2 x Digital Temperature Sensor Module

2 x Photoelectric Breakout Module

2 x Temperature Sensor Module

2 x Bi-Colour LED Common Cathode Module 3MM

2 x Switching Module

2 x Hall Sensor Module

2 x RGB LED Module

2 x Module for Arduino Mini Reed

2 x Tilt Switch Module

2 x Auto Blink LED Module

2 x Key Switch Module

2 x Photoresistor Module

2 x Vibration Switch Module

2 x Crash sensor module for ARDUINO

2 x Temperature Sensor Module

2 x Analogue Hall Sensor

2 x Microphone Sound Sensor Module

2 x Large Reed Module

2 x Bi-Colour LED Module

# Motors & displays

10 x DC motors

5 x servos

3 x LCD screen