

Experiment Courses

Number	Course	Course Objectives
1	Understanding Smart Home	<ul style="list-style-type: none">• Understand the concept of smart home and assembled guide teach you how to build it.• Understand the UNO R3 board (or UNO R3 CH340 board) and its programming environment• Understand the pin information
2	Interlligent LED Blink	<ul style="list-style-type: none">• Production of learning control LED• Use mobile or remote control the light on and off
3	Breathing Light	<ul style="list-style-type: none">• Control LED brightness through PWM• Undertsand PWM and how it works
4	Music Doorbell	<ul style="list-style-type: none">• Understand the characterustics and principle of touch sensor and passive buzzer• Learn to program touch sensor and passive buzzers• Making music doorbell
5	Controlling LED By Button Module	<ul style="list-style-type: none">• Understand the characterustics and principle of button module• Control LED to light on and off via button module
6	1-channel Relay Module	<ul style="list-style-type: none">• Understand the 1-channel relay module and its principle• 1-channel relay module is an "automatic switch"• 1-channel relay module comes with 2 positioning holes which can fix it to other equipment.

7	Smart Light - Controlled Windows	<ul style="list-style-type: none"> ● Understand the characteristics and principle of photosensitive sensor and digital tube ● Learn how to control and program the photosensitive sensor and digital tube ● The production of light control Windows, the realization of daylight Windows and dark lights off
8	Automatic Garage Door	<ul style="list-style-type: none"> ● Understand the characteristics of infrared avoidance sensor and steering gear ● The automatic brake is made to realize the automatic lifting of the gate railings ● The rotation angle of servo motor is controlled by regulating the duty cycle of PWM (Pulse-Width Modulation) signal
9	APP Remote Control Fan Module	<ul style="list-style-type: none"> ● Learn to make APP of fan module ● Realize the use of APP remote control fan module
10	Automatic Intelligent Window	<ul style="list-style-type: none"> ● Understand the principle and use of steam sensor ● Learn how to program steam sensor ● Make automatic window, realize rain automatically chose the window
11	Intelligent Body Sensor Lamp	<ul style="list-style-type: none"> ● Understand the principle and use of human body sensor ● Learn how to program human sensor ● The production of human body sensing lamp, to achieve the function of light

12	ntelligent Smoke Alarm System	<ul style="list-style-type: none"> ● Undersand the principle and use of smoke sensor ● Learn how to program smoke sensor ● Make smoke alarm syatem, realize the detection of smoke
13	Air Quality Detection System	<ul style="list-style-type: none"> ● Undersand the characteristics and principle of 1602 LCD display ● Learn how to use 160 LCD display programming ● Make air quality detection system, realize LCD display smart home
14	Remote Monitoring System APP	<ul style="list-style-type: none"> ● Undersand the characteristics and principle of Soil Humidity Sensor ● Learn how to make a test room ● Realize mobile APP to check indoor temperature and humidity in time
15	Bluetooth System Control of Doors and Windows	<ul style="list-style-type: none"> ● Undersand the characteristics and principle of Bluetooth module ● Learn to make APP of bluetooth remote control doors and windows ● Realize remote control of door and window by Bluetooth APP
16	Multi-purpose Smart Home Kit	<ul style="list-style-type: none"> ● Connection Diagram ● Perform all functions

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