

**ACEBOTT**



# Smart Farm Starter Kit

A C E B O T T   S T E M   E d u c a t i o n   T e c h   C o . , L t d



Smart Farm kit is an intelligent technology based on **ESP32 Internet of things**, which can realize the functions of simulated planting, solar energy application, pet feeding, environmental monitoring and so on.

It **simulates** the process of smarter **modern agricultural** production management, and also cultivate children's understanding and application ability of modern agricultural technology, and master relevant programming knowledge.





- **Simulated Planting**
- **Pet Feeding**
- **Solar Power Generation**
- **Internet of Things Learning**
- **ESP32 Programming Learning**
- **WIFI & App Control**





**Interdisciplinary learning**

Combining agriculture and technology, provides students with interdisciplinary learning experiences.

**Systematic learning**

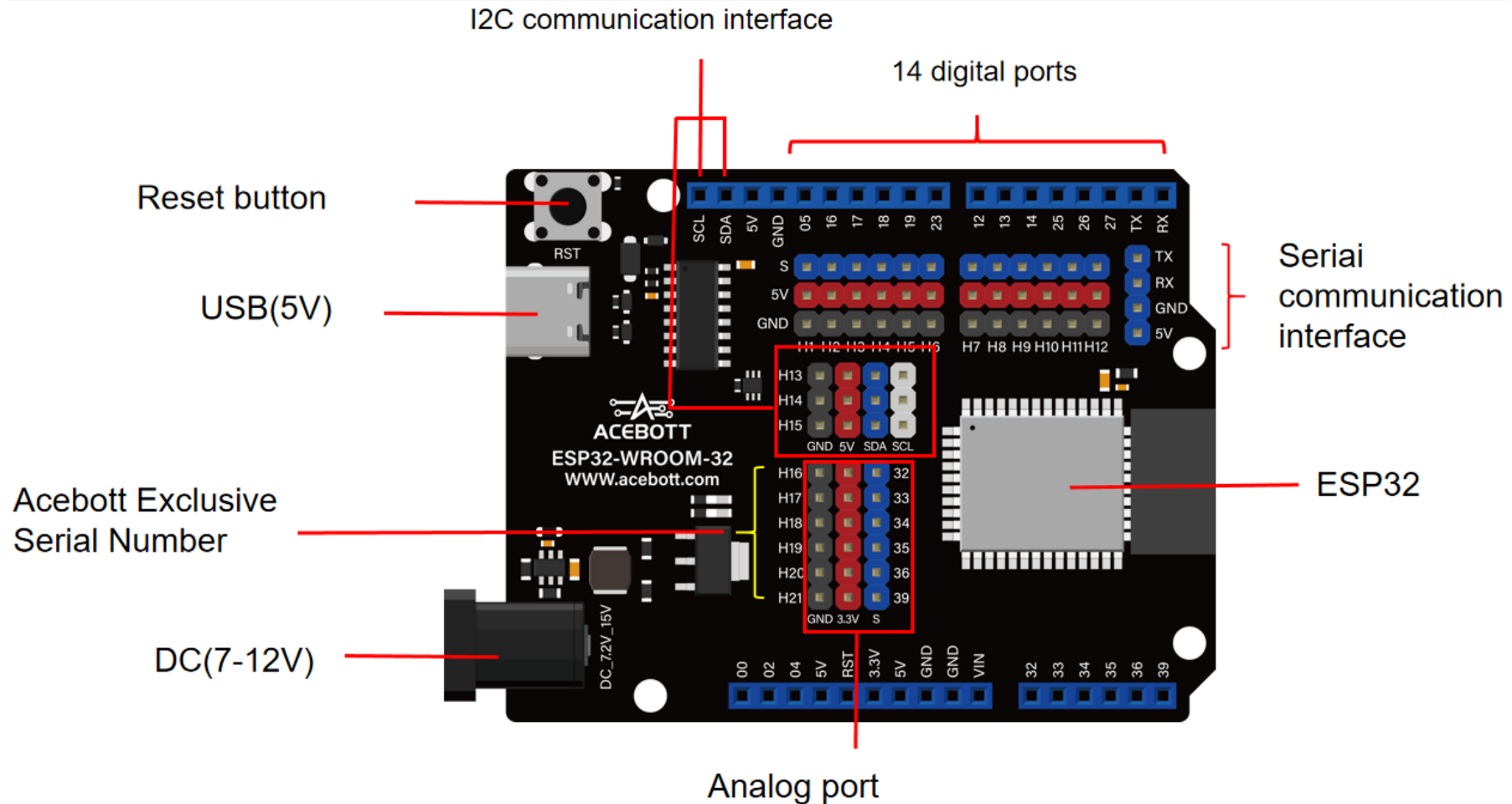
Design a series of advanced experimental projects based on the story background.

**Strong practical**

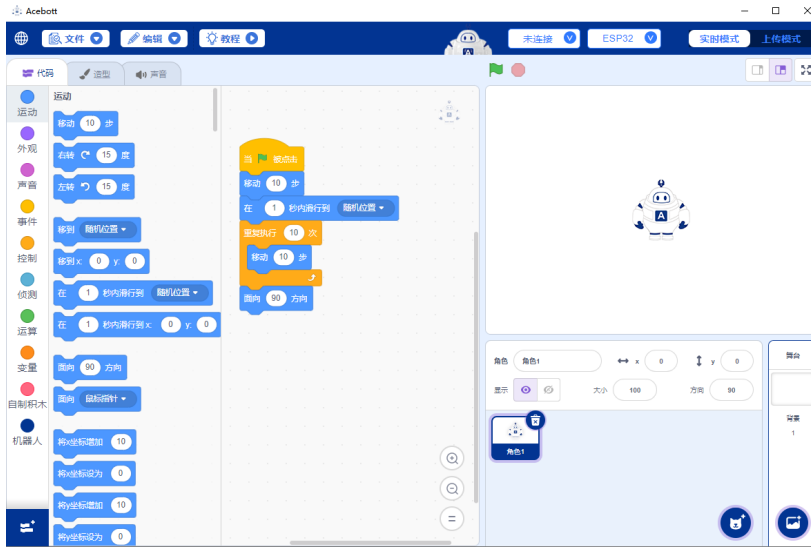
Students can deepen their understanding of hardware principles and programming techniques by controlling electronic modules through programming.

**Strong practicability**

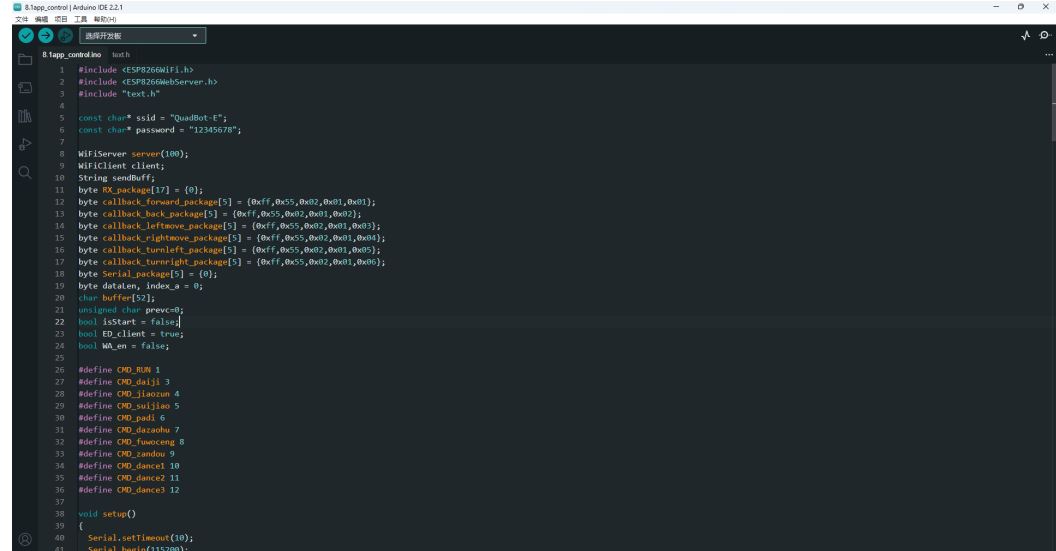
A practical and feasible project centered around the theme of smart farming is designed, enabling students to apply what they have learned in practice.



## ESP32



## Blockly Programming



## Arduino IDE



The type of course: **Basic**

Suitable for age: **8+**

## Smart Farm



















Serial number	Project name	Serial number	Project name
1	Rebuilding the farm	9	Water level detection
2	Light up the farm	10	Plant growth lamp
3	Light control	11	Automatic feeding
4	Light ray lamp	12	Christmas Eve
5	An animal alarm	13	OLED display
6	Solar energy windmill	14	Weather detection
7	Soil moisture detection	15	lot remote control
8	Automatic watering	16	APP control





# Explorer Series

# ACEBOTT IOT Smart Farm Starter Kit

 <p>ESP32 Max V1.0 Controller Board 1PC</p>	 <p>Blue LED Module 1PC</p>	 <p>Solar Panel 1PC</p>	 <p>Toggle Switch 1PC</p>	 <p>Motor 1PC</p>	 <p>DHT11 Temperature and Humidity Sensor 1PC</p>
 <p>PIR Motion Sensor 1PC</p>	 <p>5V Relay Module 1PC</p>	 <p>P-Buzzer Module 1PC</p>	 <p>Photoresistor Sensor 1PC</p>	 <p>OLED Module 1PC</p>	 <p>6xAA Battery Holder 1PC</p>
 <p>Servo SG90 9G 1PC</p>	 <p>RGB LED Strip 1PC</p>	 <p>Moisture Sensor 1PC</p>	 <p>Touch Sensor 1PC</p>	 <p>Water Sensor 1PC</p>	 <p>Water pump 1PC</p>
 <p>F-F 3P Dupont Wire 11PCS</p>	 <p>F-F 4P Dupont Wire 2PCS</p>	 <p>M-M 1P Dupont Wire 2PCS</p>	 <p>Cross Wrench 1PC</p>	 <p>Screwdriver 1PC</p>	 <p>Wooden Board 1PC</p>
 <p>M2*22MM Round Head Screws 3PCS</p>	 <p>M3*10MM Round Head Screws 20PCS</p>	 <p>M3*20MM Round Head Screws 3PCS</p>	 <p>M3*8MM Flat Head Screws 9PCS</p>	 <p>M2 Nickel-Plated Nuts 3PCS</p>	 <p>M3 Nickel-Plated Nuts 24PCS</p>
 <p>M3*14MM Dual-pass Copper Pillar 4PCS</p>	 <p>USB Cable 1M 1PC</p>				



<b>Product Name</b>	Smart Farm Starter Kit	<b>Suitable Age</b>	8+
<b>Electronic Module</b>	5V Relay Module	<b>ESP32 Max V1.0 Controller Board</b>	Chip: ESP-WROOM-32
	P-Buzzer Module		Connectivity: WI-FI/Bluetooth LE
	Blue LED Module		Clock: 240MHz
	Servo SG90 9G		Ram: 448KB
	OLED Moudule		FLASH:4MB
	DHT11 Humidity Temperature Sensor		Interfaces:UART/I2C/SPI/CAN
	Moisture Sensor		Input Voltages:6-18V
	Photoresistor Sensor		Pinout:25(DIGITAL)/15 (ANALOG) /25(PWM)/2(DAC)/2(UART)/2(SPI)/1(I2C)
	Touch Sensor		Dimensions: 52.6x68.2 mm
	Water Sensor		<b>Programming Software</b>
	PIR Motion Sensor	<b>Curriculum</b>	16
	RGB LED Strip	<b>Package</b>	Airplane Box
	Water pump		



**THANK YOU**