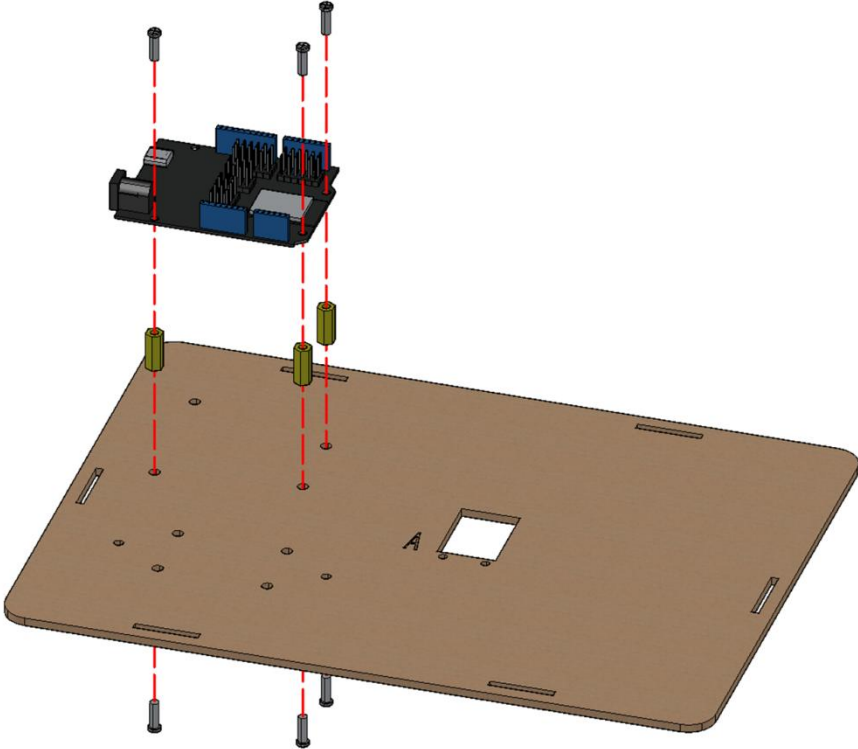
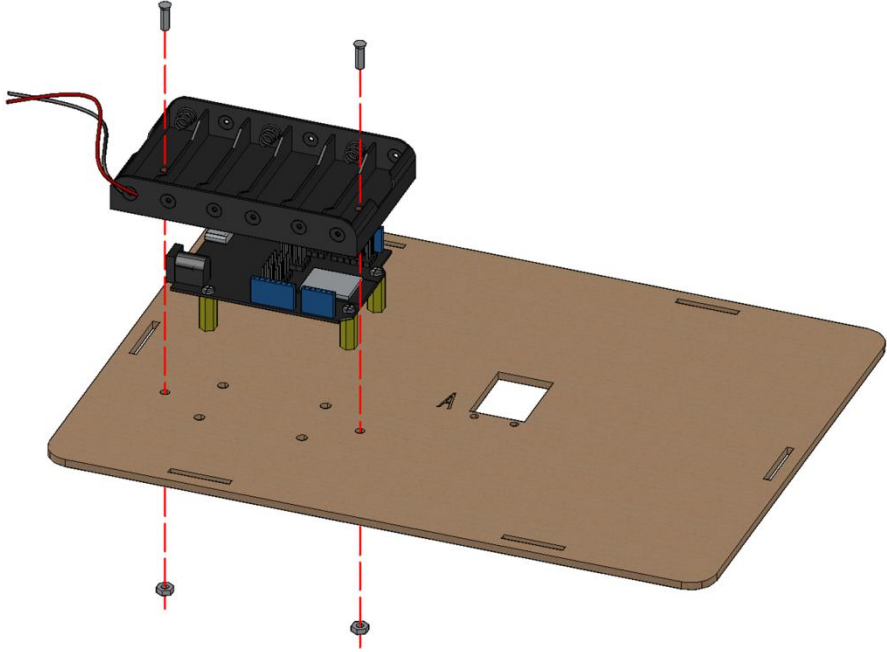
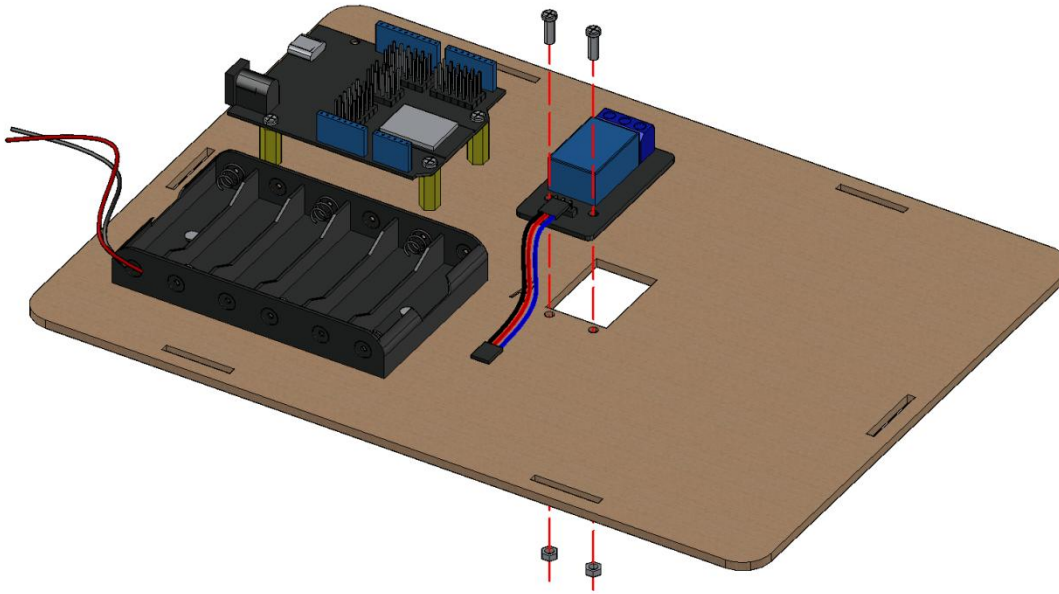


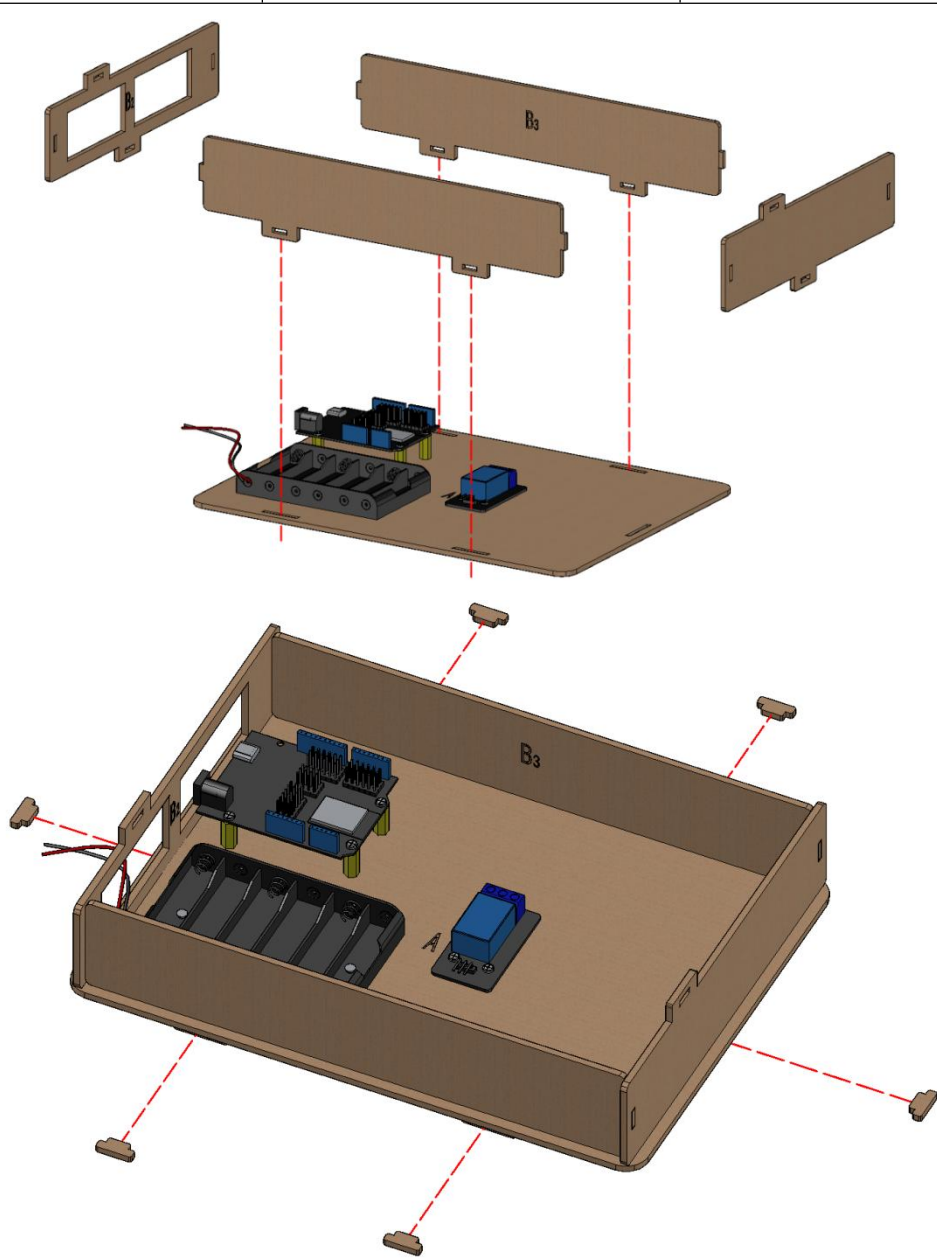
Step 1 Assemble ESP32 Max V1.0 Controller Board			
Part Lists	Wooden Board A*1	M3*8MM Flat Head Screws*6	M3*14MM Dual-pass Copper Pillar*3
	ESP32 Max V1.0 Controller Board*1		
Splicing Diagram			
Notes	<p>1. Screw the copper column on the board first, then cover the controller board and tighten the screws;</p> <p>2. The board sign is for the convenience of finding the board, but the board sign should face inward during assembly.</p>		

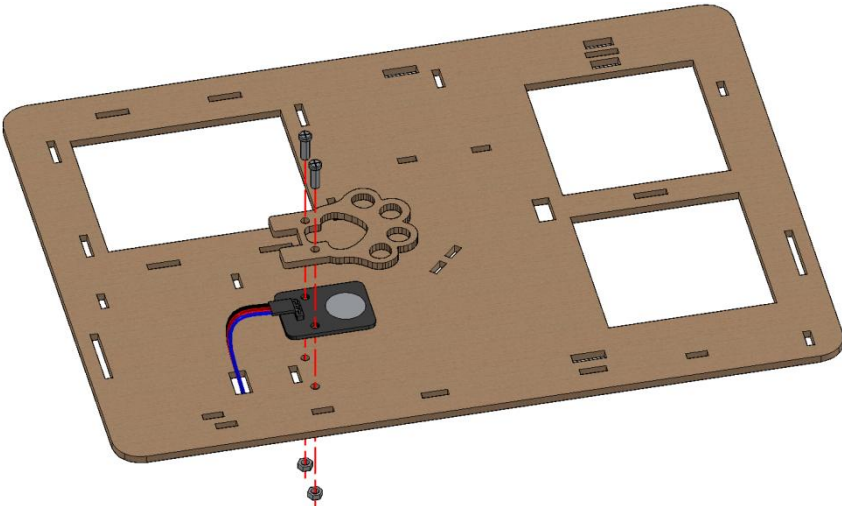
Step 2 Assemble Battery Holder			
Part Lists	M3 Nickel-Plated Nuts*2	M3*8MM Flat Head Screws*2	6xAA Battery Box with DC*1
	The assembled Wooden Board A		
Splicing Diagram			
Notes	<ol style="list-style-type: none">1. Screw step: first by hand to screw the nut, and then tighten;2. The line of the battery case faces left;3. Tightening method: press the nut with a screwdriver, or press the screw with a cross sleeve nut.		

Step 3 Assemble the relay module

Part Lists	M3 Nickel-Plated Nuts*2	M3*10MM Round Head Screws*2	5V Relay Module*1
	F-F 3P Dupont Wire*1	The assembled Wooden Board A	
Splicing Diagram			
Notes	<p>1. The relay module is connected to pin 26;</p> <p>2. The color of the dupont line is blue, red and black. The blue thread is connected to the S pin, the red thread to the V pin, and the black thread to the G pin.</p>		

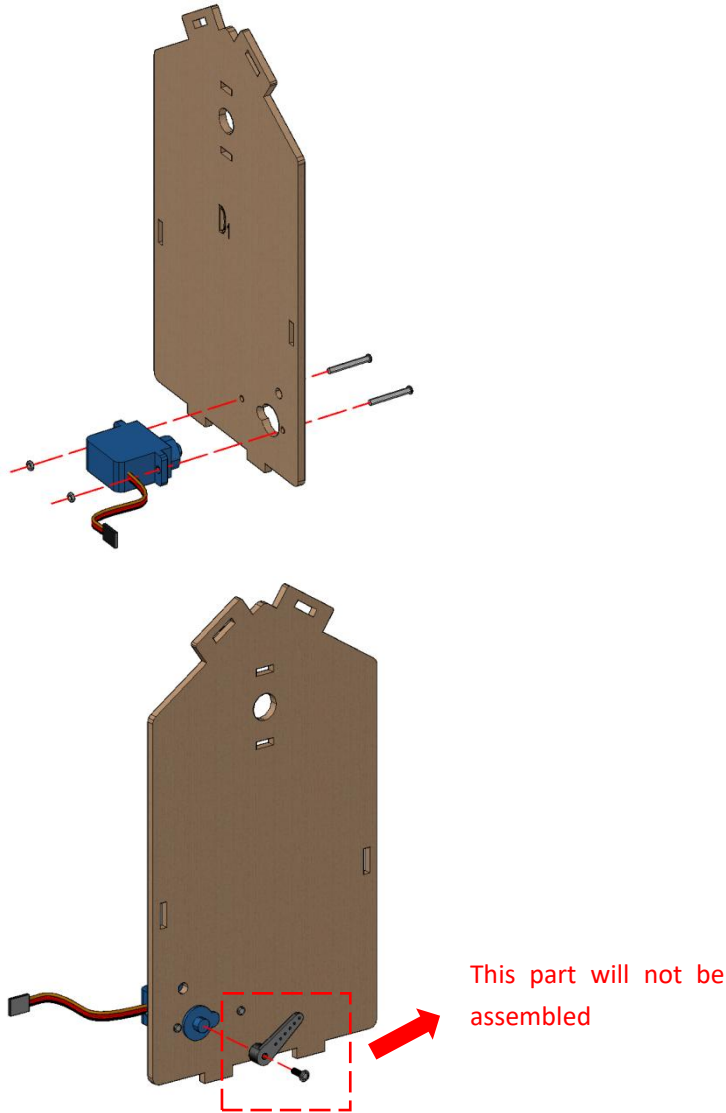
Step 4 Assemble enclosure

Part Lists	Wooden Board B1*1	Wooden Board B2*1	Wooden Board B3*1
	Wooden Board B4*1	Lock*6	The assembled Wooden Board A
Splicing Diagram			
Notes	<ol style="list-style-type: none">1. Connect the Wooden Boards of B1, B2, B3 and B4 in order;2. Assemble the whole onto Wooden Board A;3. Finally assemble 6 locks on the bottom.		

Step 5 Assemble touch sensors			
Part Lists	Cat claw type Wooden Board*1	M3*10MM Round Head Screws*2	Touch Sensor*1
	M3 Nickel-Plated Nuts*2	F-F 3P Dupont Wire*1	Wooden Board C*1
Splicing Diagram			
Notes	<p>1. The cat claw type board is assembled on the touch sensor, and the screw is assembled after the good position;</p> <p>2. The touch sensor is connected to pin 32.</p>		

Step 6 Assemble the farm house

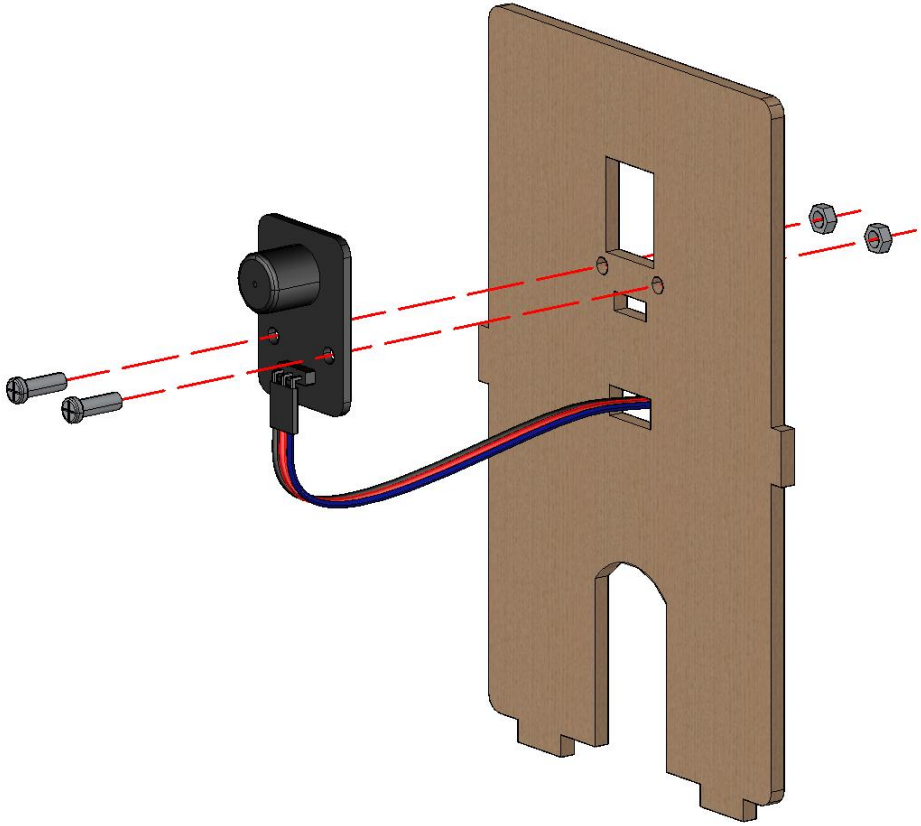
6.1 Assemble the Servo SG90 9G

Part Lists	Wooden Board D1*1	Servo SG90 9G*1
	M2*22MM Round Head Screws*2	M2 Nickel-Plated Nuts*2
Splicing Diagram	 <p>This part will not be assembled</p>	
Notes	<p>1. The steering gear is assembled against the side of the board D1 with words;</p> <p>2. The steering gear needs to be calibrated, so the steering wheel and the screw screw of the steering gear are not assembled for the time being, and the steering gear will be taught how to calibrate in the later course, please</p>	

	<p>keep it;</p> <p>3. The servo pin is connected to No. 14. The color of the servo wire is different from the ordinary dupont wire. The red line is connected to the V pin, the brown line is connected to the G pin, and the yellow line is connected to the S pin.</p>
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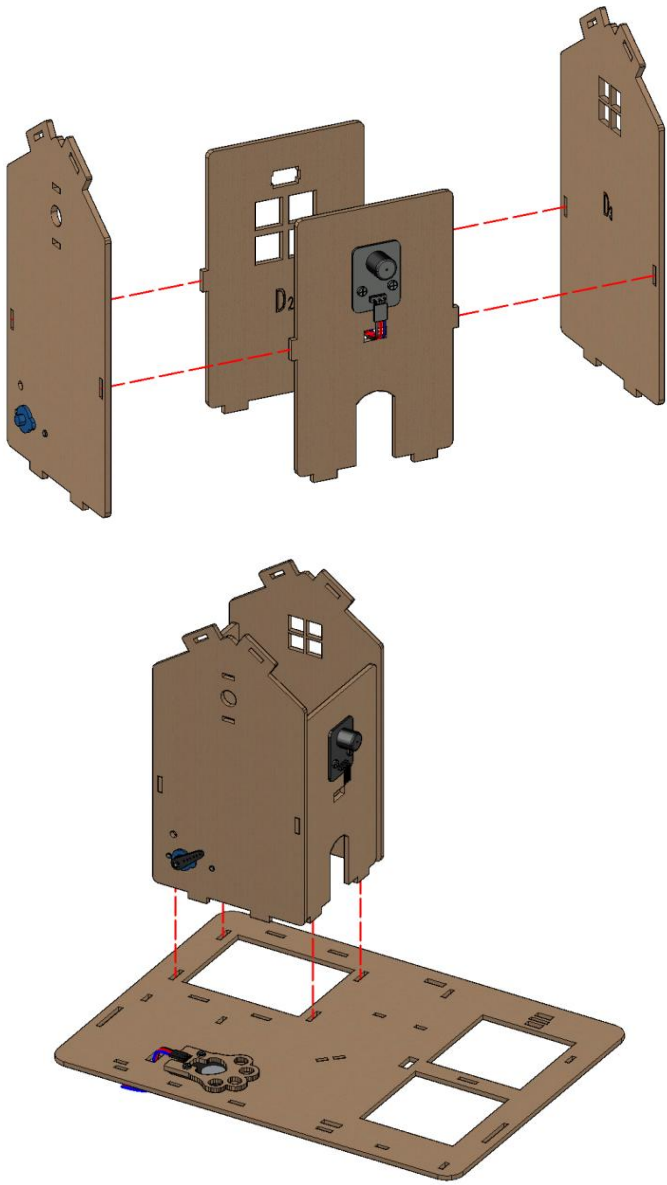
Step 6 Assemble the farm house

6.2 Assemble the P-Buzzer Module

Part Lists	Wooden Board D4*1	P-Buzzer Module*1	M3*10MM Round Head Screws*2
	M3 Nickel-Plated Nuts*2	F-F 3P Dupont Wire*1	
Splicing Diagram			
Notes	<ol style="list-style-type: none">1. The P-Buzzer Module is connected to pin 25;2. The dupont line runs through the rectangular hole below the buzzer.		

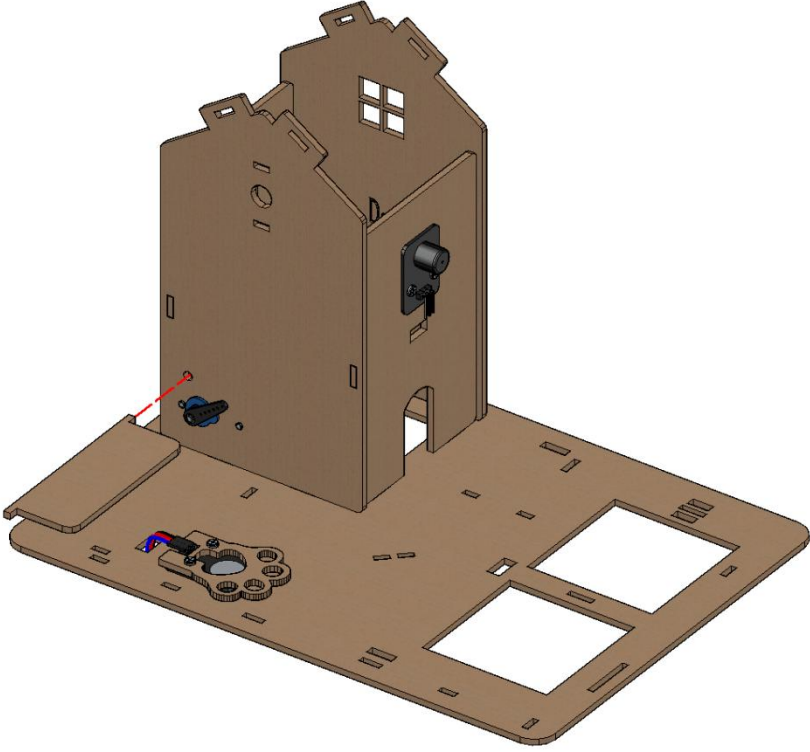
Step 6 Assemble the farm house

6.3 Combined wooden house

Part Lists	The assembled Wooden Board D1	Wooden Board D2*1	Wooden Board D3*1
	The assembled Wooden Board D4	The assembled Wooden Board C	
Splicing Diagram			
Notes	<p>Firstly, D1, D2, D3 and D4 are assembled into a room according to the diagram.</p>		

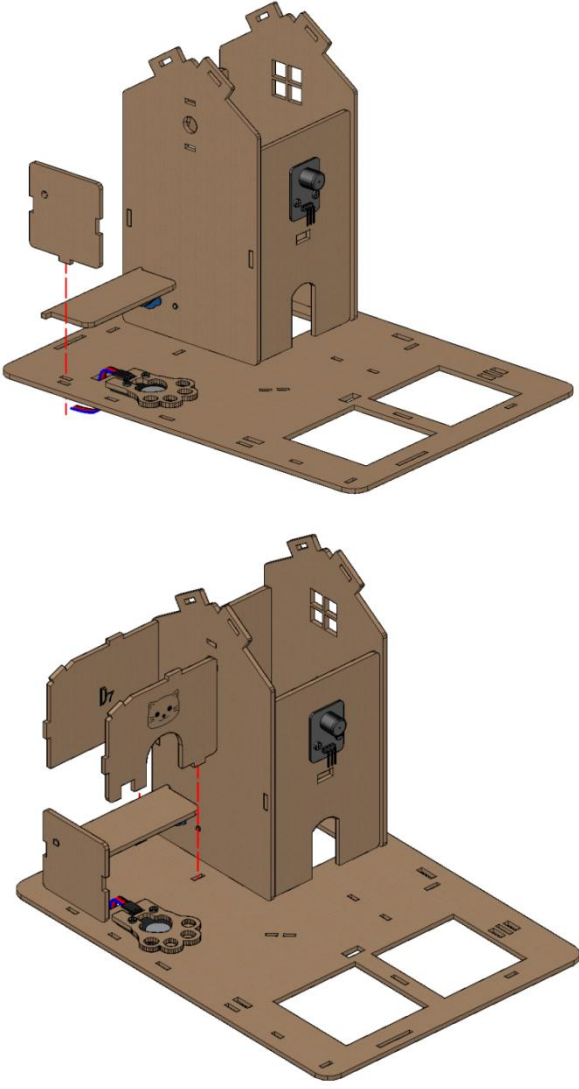
Step 7 Assemble the cat's nest

7.1 Assemble the funnel baffle

Part Lists	Wooden Board D5*1	The assembled Wooden Board C	
Splicing Diagram			
Notes	Insert one end of Wooden Board D5 into the small round hole of Wooden Board D1.		

Step 7 Assemble the cat's nest

7.2 Assemble the body of the cat's nest

Part Lists	Wooden Board D5*1	Wooden Board D6*1	Cat pattern Wooden Board*1
	The assembled Wooden Board C		
Splicing Diagram			
Notes	<p>1. Hold the D5 board in your hand, then insert the other end into the round hole of the D6 board, paying attention to the letters facing inward;</p> <p>2.D7 and the cat pattern board are assembled as shown in the figure. The D7 letter faces inward and the cat pattern faces outward.</p>		

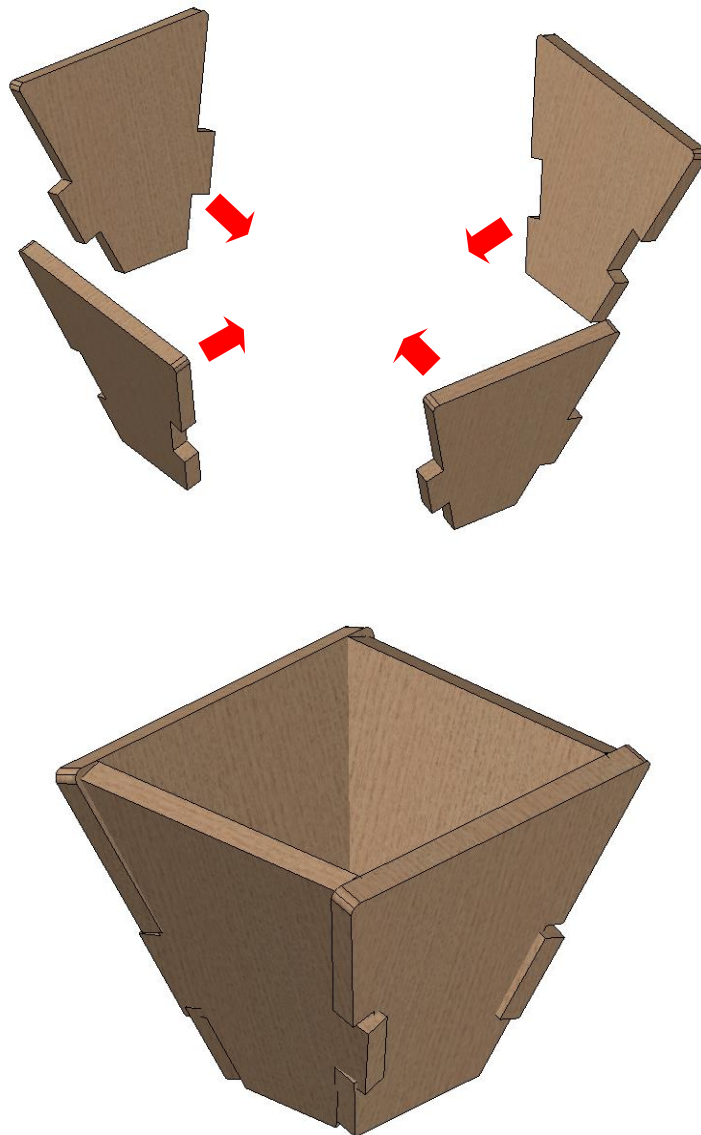
Step 7 Assemble the cat's nest

7.3 Assemble funnel

Part Lists

Trapezium
Wooden Board*4

Splicing
Diagram

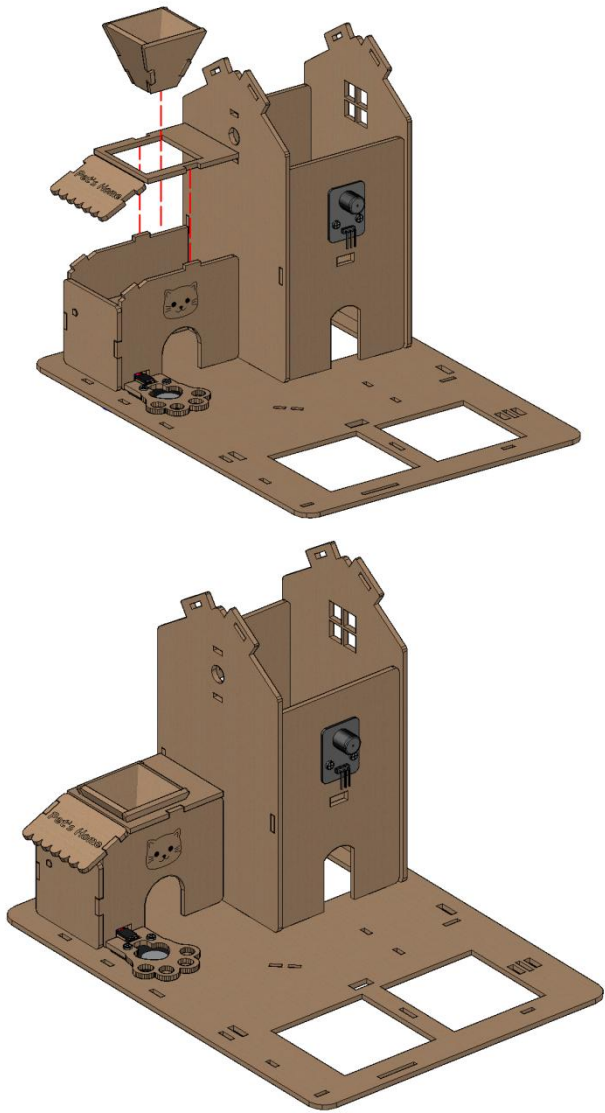


Notes

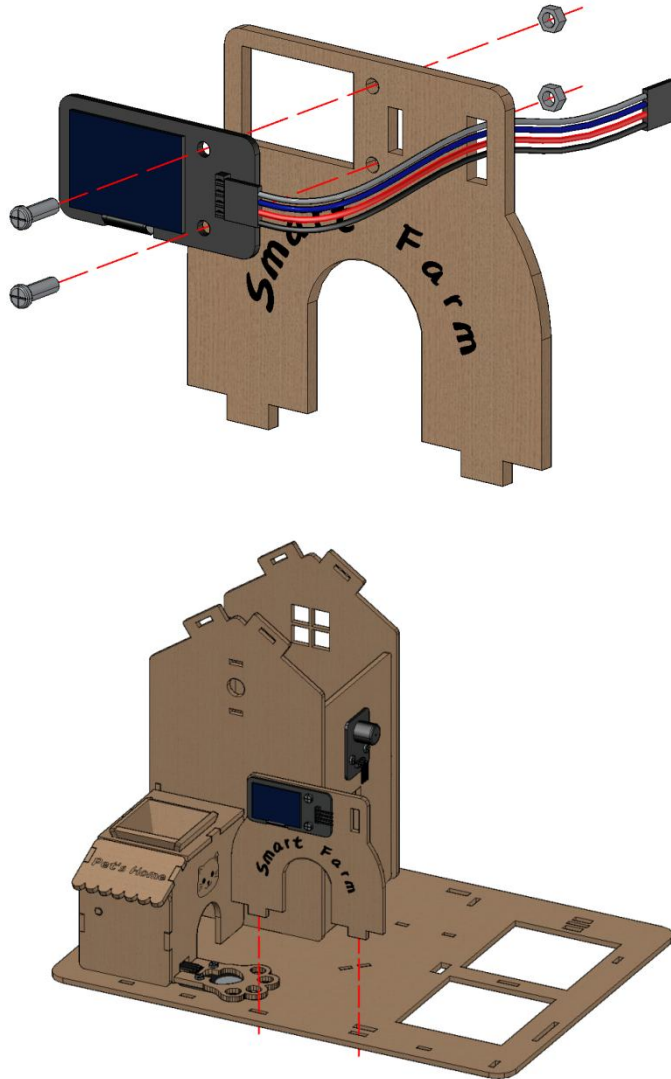
The funnel structure is composed of four trapezoidal structures. Notice that the trapezoidal structure has two left and right edges that are raised and two left and right edges that are concave, so when installing, it should be spaced apart and the direction is consistent up and down.

Step 7 Assemble the cat's nest

7.4 Assemble the cat's nest

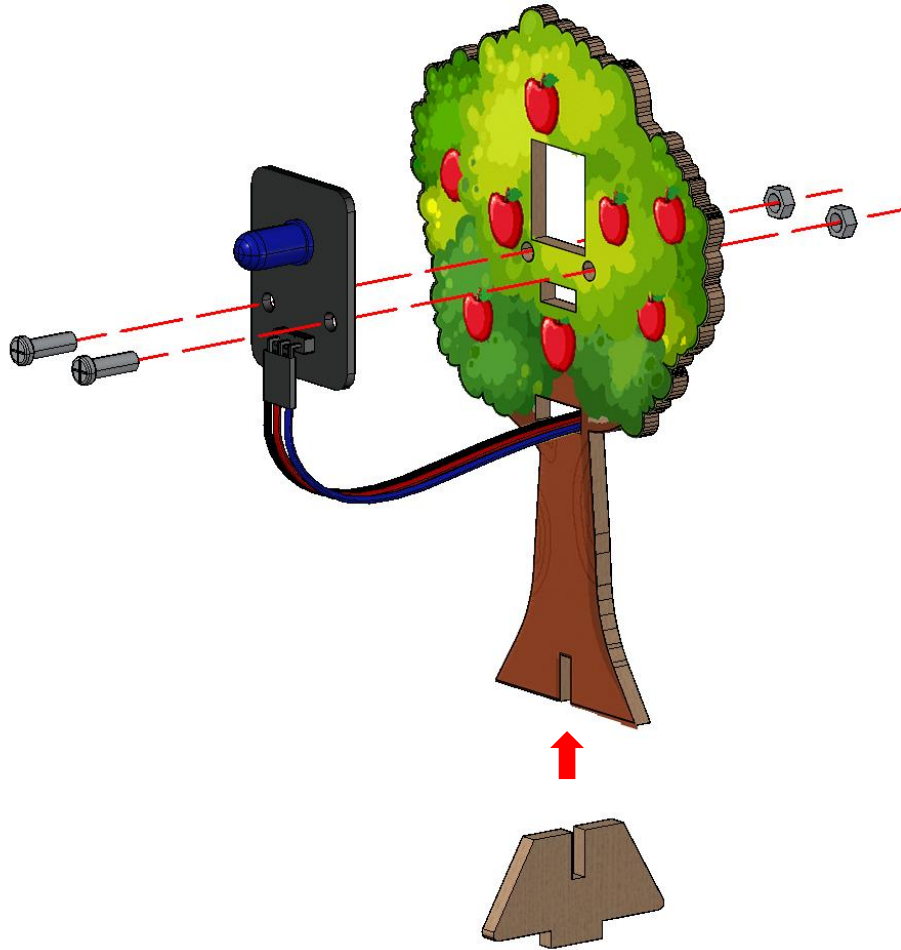
Part Lists	The assembled Funnel structure	Wooden Board D8*1	Pet's Home patterned board*1
	The assembled Wooden Board C		
Splicing Diagram			
Notes	<p>1. Assemble the D8 first, then assemble the Pet's Home pattern board, and finally embed the funnel into the Wooden Board D8;</p> <p>2. The letters of D8 face inward, and the Pet's Home pattern faces outward.</p>		

Step 8 Assemble the arched door

Part Lists	Smart farm Arched Wooden Board*1	OLED Module*1	M3*10MM Round Head Screws*2
	M3 Nickel-Plated Nuts*2	F-F 4P Dupont Wire*1	The assembled Wooden Board C
Splicing Diagram			
Notes	<ol style="list-style-type: none"> 1. Assemble the arch door of the assembled OLED module onto the Wooden Board C with the English letters facing outward; 2. When assembling, pay attention to the hole position, do not blindly assemble, so as not to damage the Wooden Board; 3.OLED module is connected to I2C (H15) pin. 		

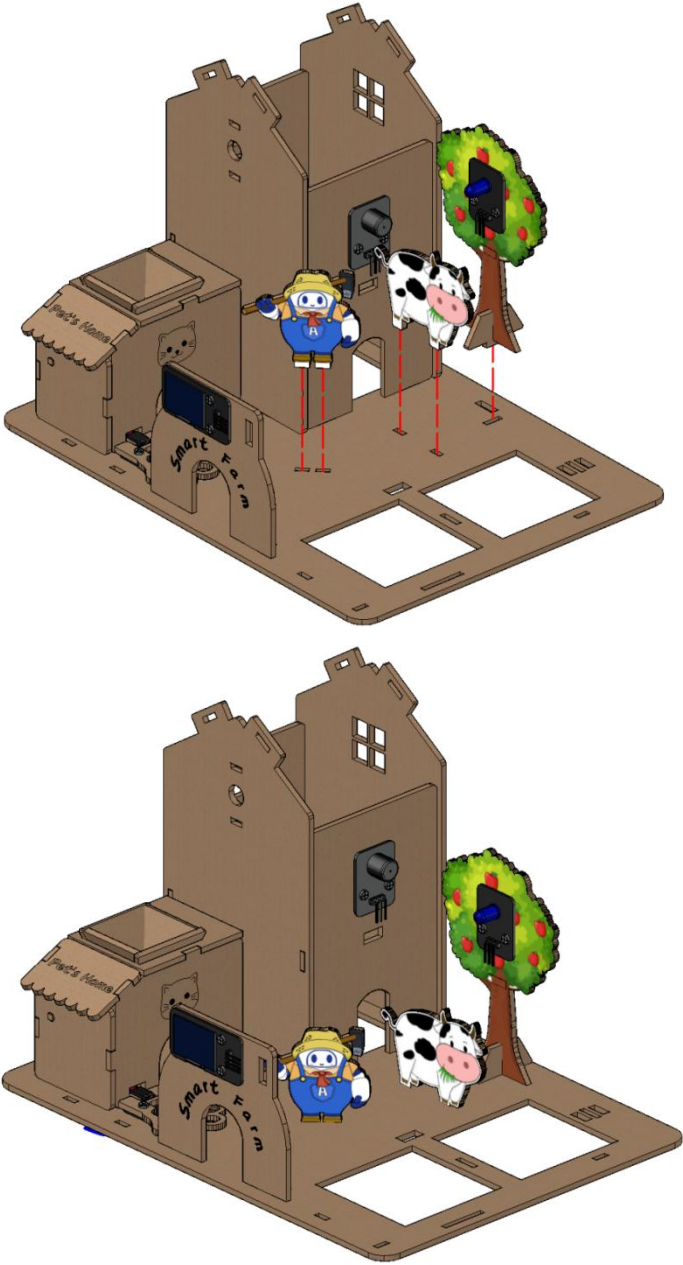
Step 9 Assemble the Farm Yard

9.1 Assemble the tree board

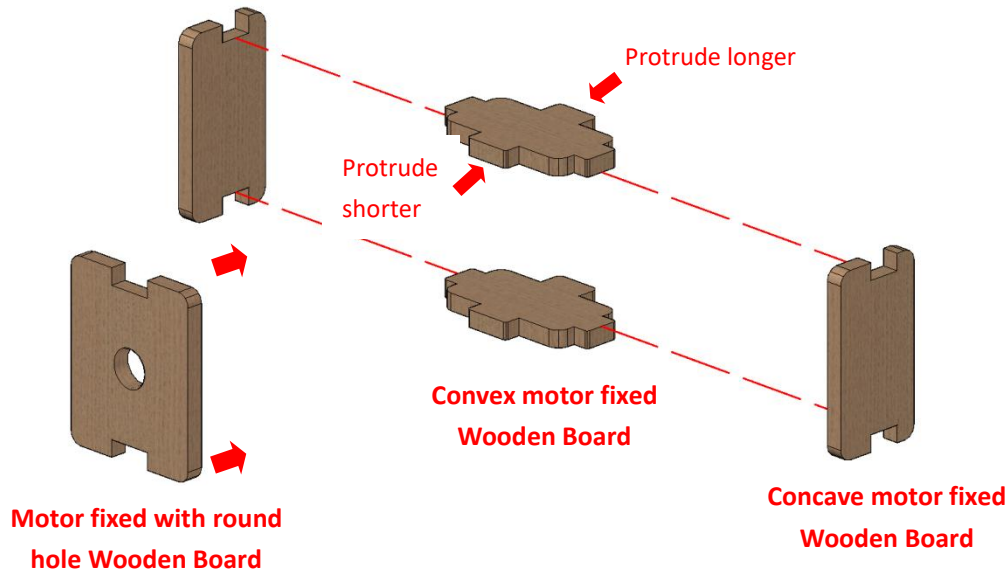
Part Lists	M3*10MM Round Head Screws*2	M3 Nickel-Plated Nuts*2	Blue LED Module*1
	F-F 3P Dupont Wire*1	Tree color printing Wooden Board*1	Tree board bottom connecting plate*1
Splicing Diagram			
Notes	<p>1. Assemble the LED module on the tree board, and then vertically connect the direction corresponding to the bottom connector notch;</p> <p>2. The LED module is connected to pin 27.</p>		

Step 9 Assemble the Farm Yard

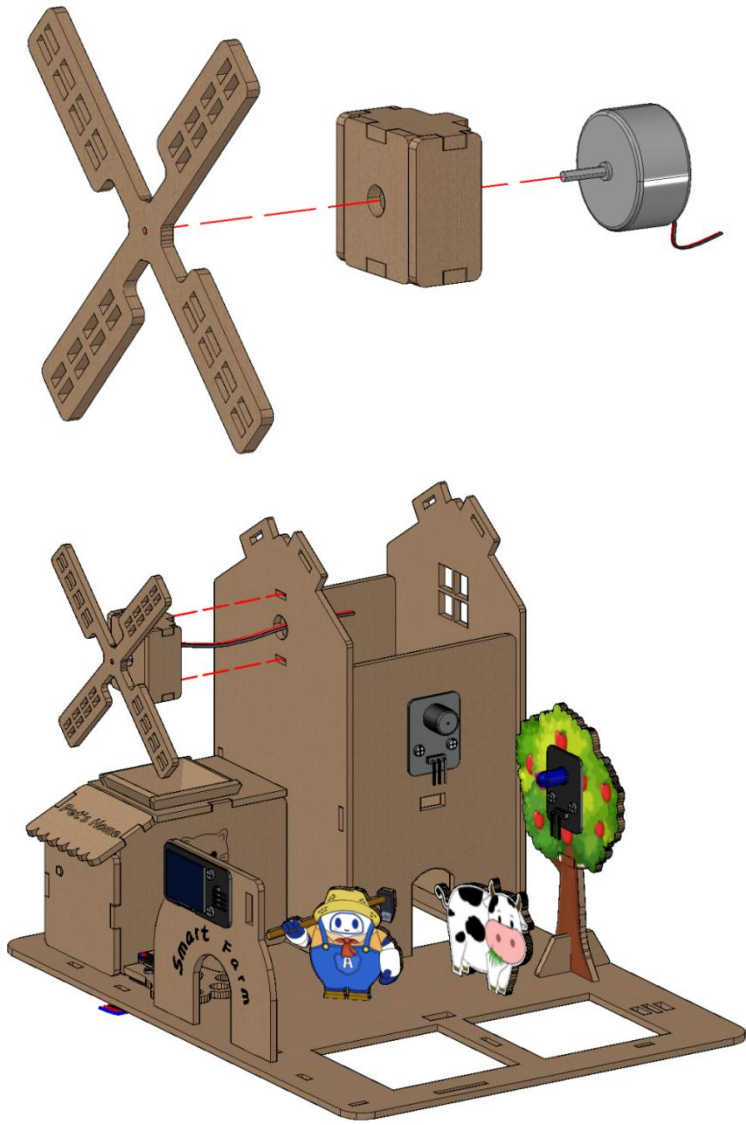
9.2 Assemble the color board

Part Lists	Lumi color printing Wooden Board*1	Cow color printing Wooden Board*1	The assembled tree color printing Wooden Board*1
	The assembled Wooden Board C		
Splicing Diagram			

Step 10 Assemble the motor fixed structure

Part Lists	Concave motor fixed Wooden Board*2	Convex motor fixed Wooden Board*2	Motor fixed with round hole Wooden Board*1
Splicing Diagram	 <p>Protrude longer</p> <p>Protrude shorter</p> <p>Convex motor fixed Wooden Board</p> <p>Motor fixed with round hole Wooden Board</p> <p>Concave motor fixed Wooden Board</p>		
Notes	The Protrude shorter of the convex motor fixed Wooden Board is connected with the motor fixed Wooden Board with a round hole.		

Step 11 Assemble the windmill structure

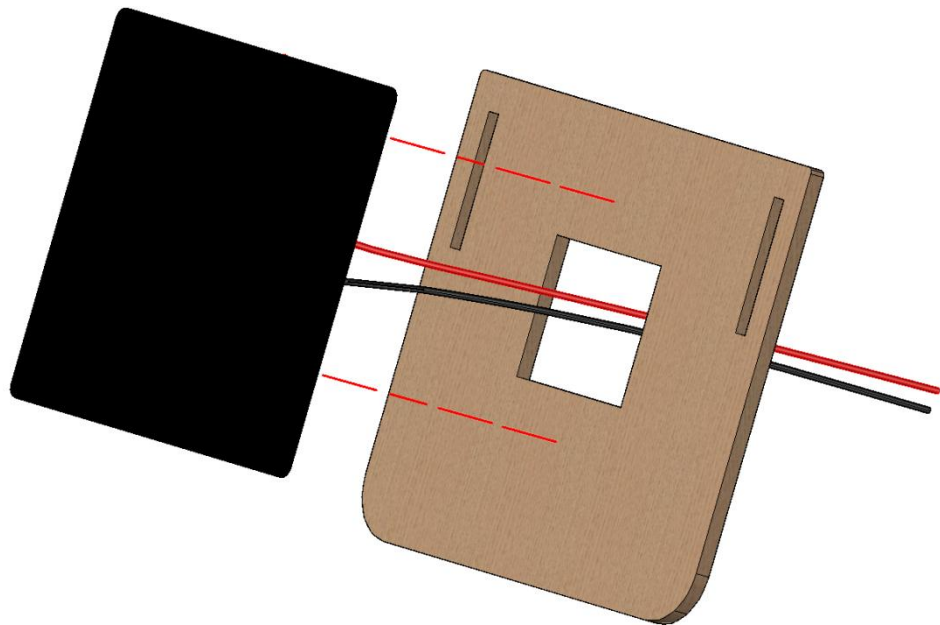
Part Lists	Windmill blade Wooden Board*1	Assembled motor fixed structure*1	Motor*1
	The assembled Wooden Board C		
Splicing Diagram			
Notes	<ol style="list-style-type: none"> 1. The motor is first assembled into the motor fixed structure, and then the small hole in the middle of the windmill blade is connected with the motor; 2. After the motor wire passes through Wooden Board D1, insert the motor fixed structure into Wooden Board D1. 		

Step 12 Assemble the Solar Panel

Part Lists

Wooden Board E2*1

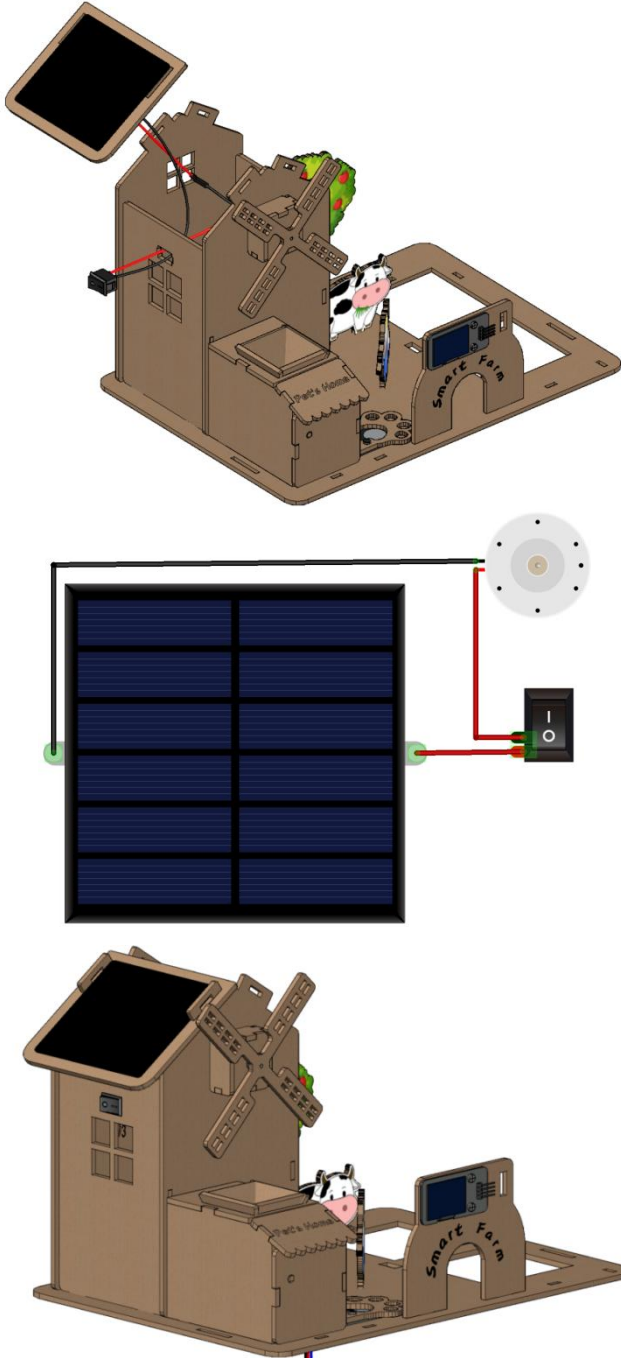
Solar Panel*1

Splicing
Diagram

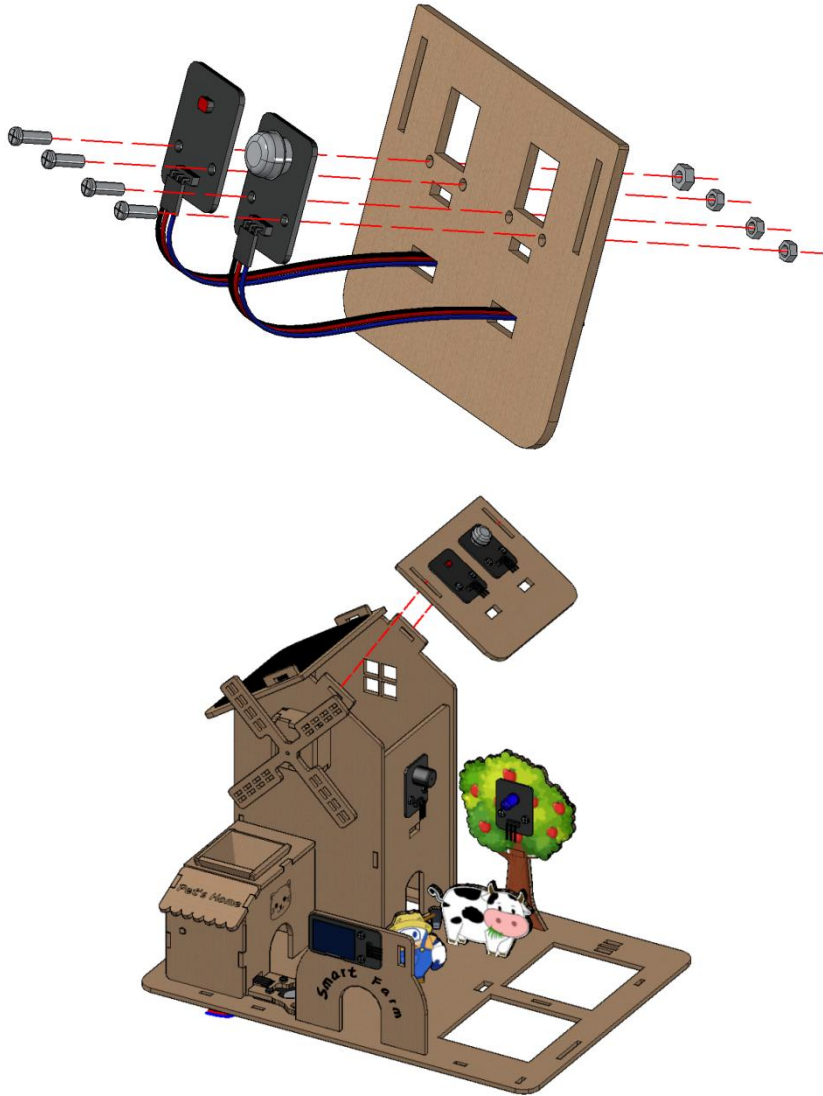
Notes

Tear off the double-sided glue from the solar panel, thread the wire through the square hole in the center of the panel and attach it to the board.

Step 13 Assemble the Solar Panel

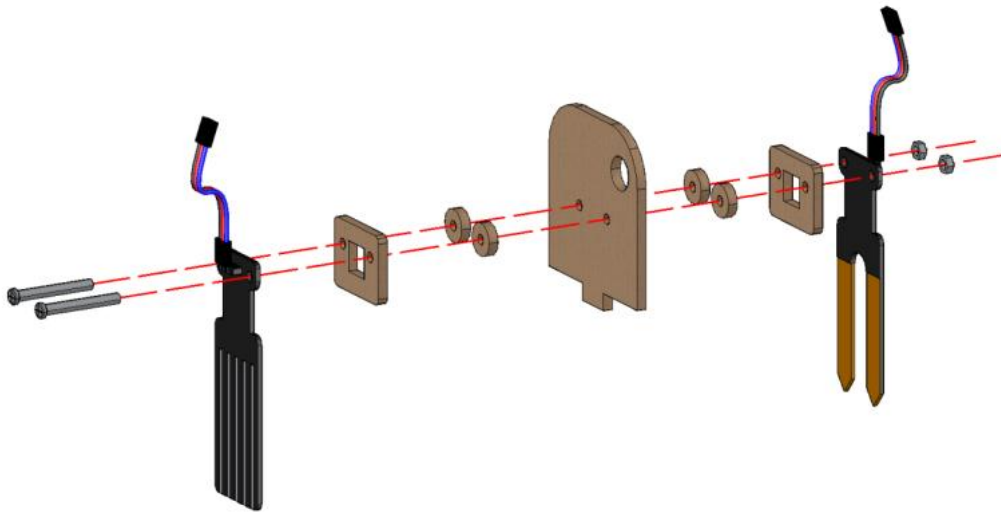
Part Lists	The assembled Wooden Board E2	The assembled Wooden Board C	Toggle Switch*1
Splicing Diagram			
Notes	<p>The wire of the Toggle Switch is passed into the assembled Wooden Board D2 from the outside, and then the wire of the motor and the solar panel is connected according to the wiring diagram.</p>		

Step 14 Assemble the roof

Part Lists	Wooden Board E1*1	M3*10MM Round Head Screws*4	M3 Nickel-Plated Nuts*4
	Light Sensor*1	PIR Motion Sensor*1	F-F 3P Dupont Wire*2
Splicing Diagram			
Notes	<ol style="list-style-type: none"> 1. Fix the light sensor and PIR Motion Sensor on Wooden Board E1, and then fix them on the roof; 2. The light sensor is connected to pin 34 and the PIR Motion Sensor is connected to pin 33. 		

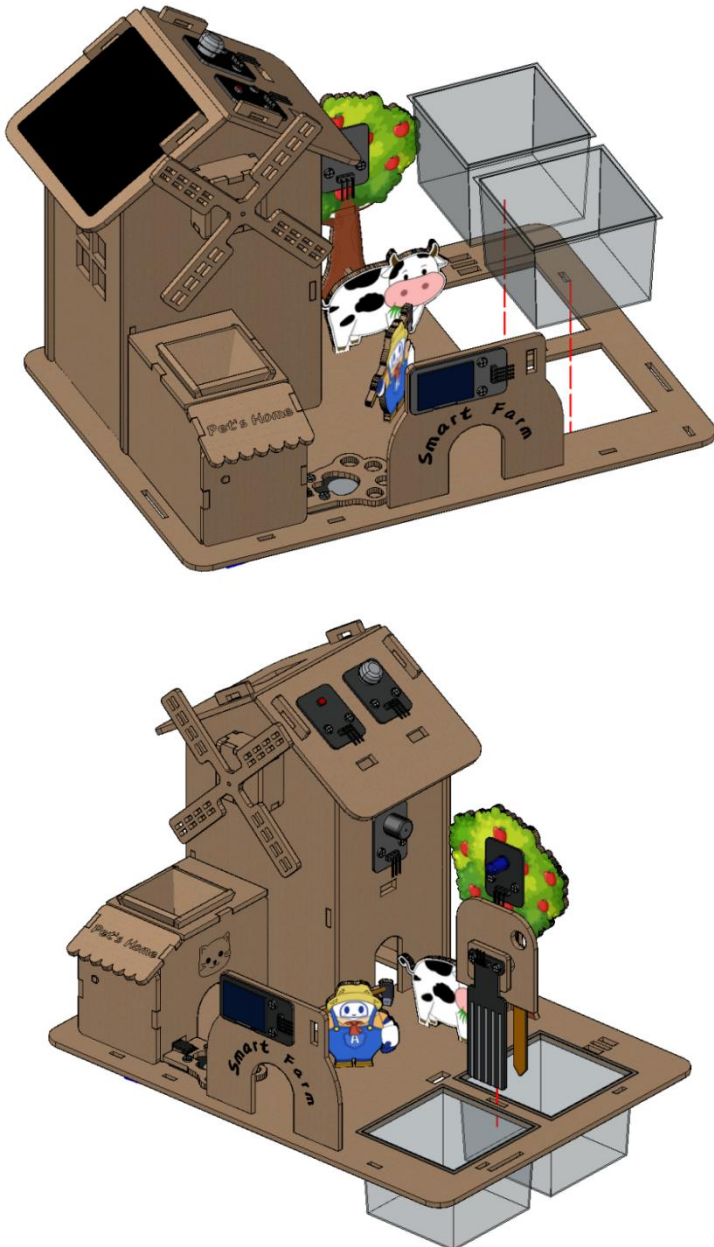
Step 15 Assemble the farm growing area

15.1 Assemble the Water Sensor and Moisture Sensor

Part Lists	Moisture Sensor*1	Water Sensor*1	Hardware fixed Wooden Board*2
	Cylindrical cushion wood*4	M3*20MM Round Head Screws*2	M3 Nickel-Plated Nuts*2
	Middle partition plate*1	F-F 3P Dupont Wire*2	
Splicing Diagram			
Notes	<p>1. With the middle partition as the limit, assemble the cylindrical pad wood, hardware fixed tilia wood, sensors, and then string them with screws, and tighten the assembly nut;</p> <p>2. The water sensor is assemble on the left, and the moisture sensor is assemble on the right;</p> <p>3. The water sensor is connected to pin 36 and the moisture sensor is connected to pin 35.</p>		

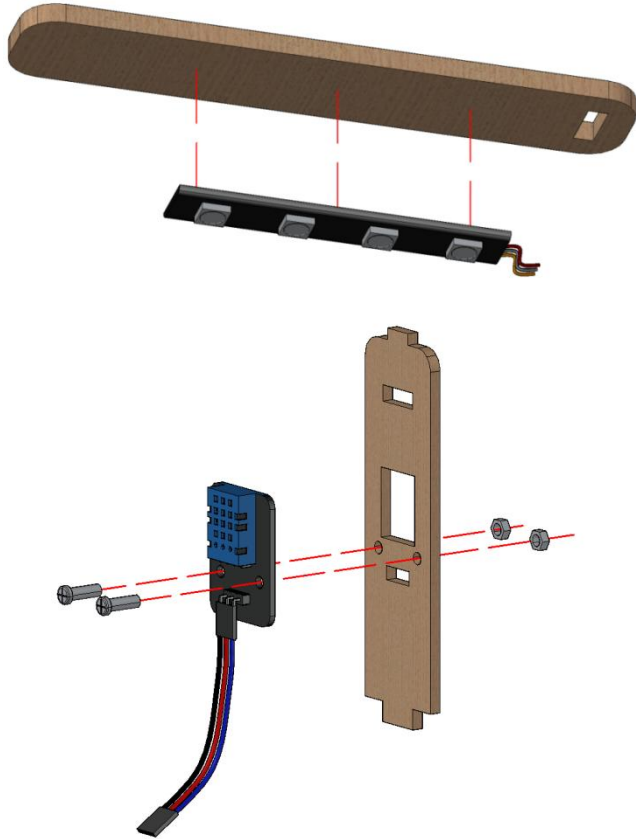
Step 15 Assemble the farm growing area

15.2 Assemble plastic sink

Part Lists	Square plastic sink*2	The assembled water sensor and moisture sensor structure*1	The assembled Wooden Board C
Splicing Diagram			
Notes	<p>Place The square plastic sink first, and then insert The assembled water level and soil moisture module structure into the Wooden Board C, with the water level sensor in the front and the soil moisture sensor in the back.</p>		

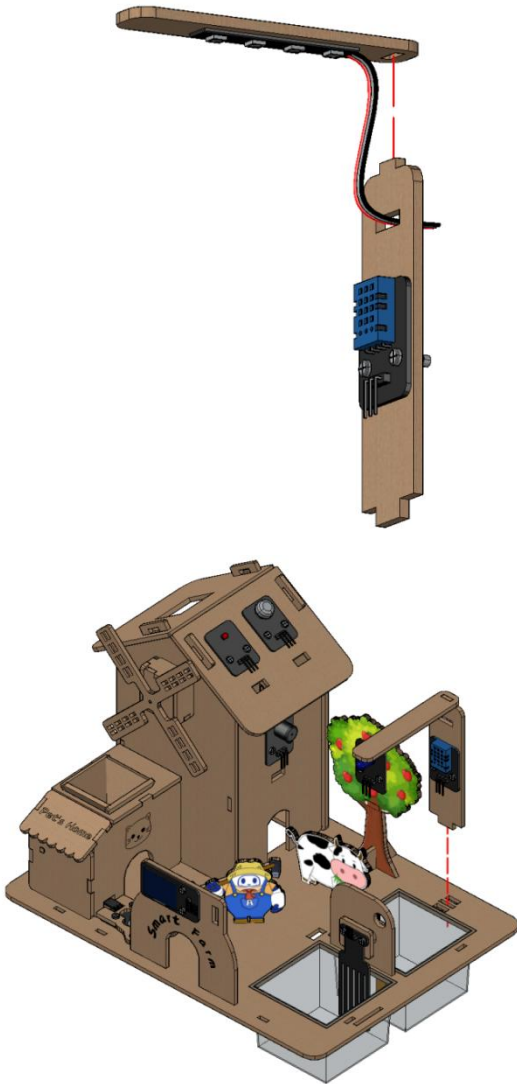
Step 15 Assemble the farm growing area

15.3 Assemble DHT11 Sensor and RGB LED Strip

Part Lists	DHT11 Sensor*1	RGB LED Strip*1	Fixed DHT11 Sensor Wooden Board*1
	Fixed RGB LED Strip Wooden Board*1	M3*10MM Round Head Screws*2	M3 Nickel-Plated Nuts*2
	F-F 3P Dupont Wire*1		
Splicing Diagram			
Notes	<p>After the RGB light belt back adhesive film is torn, stick it on the RGB light belt fixed wood. Pay attention to the direction of the RGB light belt outlet end against the wood belt hole.</p>		

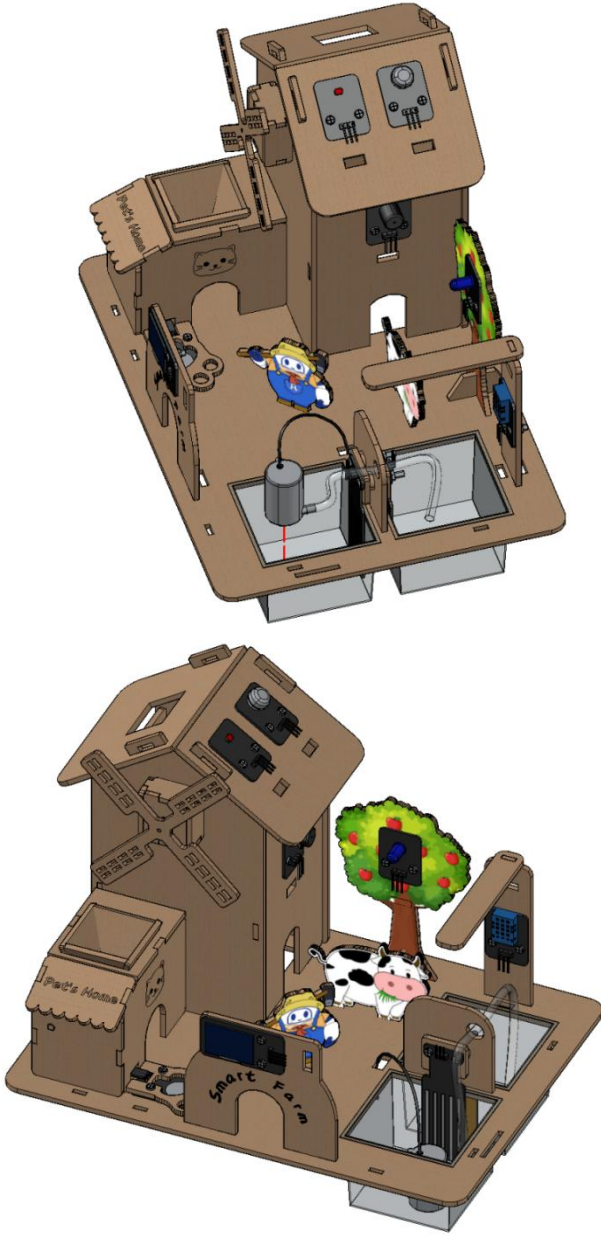
Step 15 Assemble the farm growing area

15.4 Fixed RGB LED Strip wood and DHT11 Sensor wood

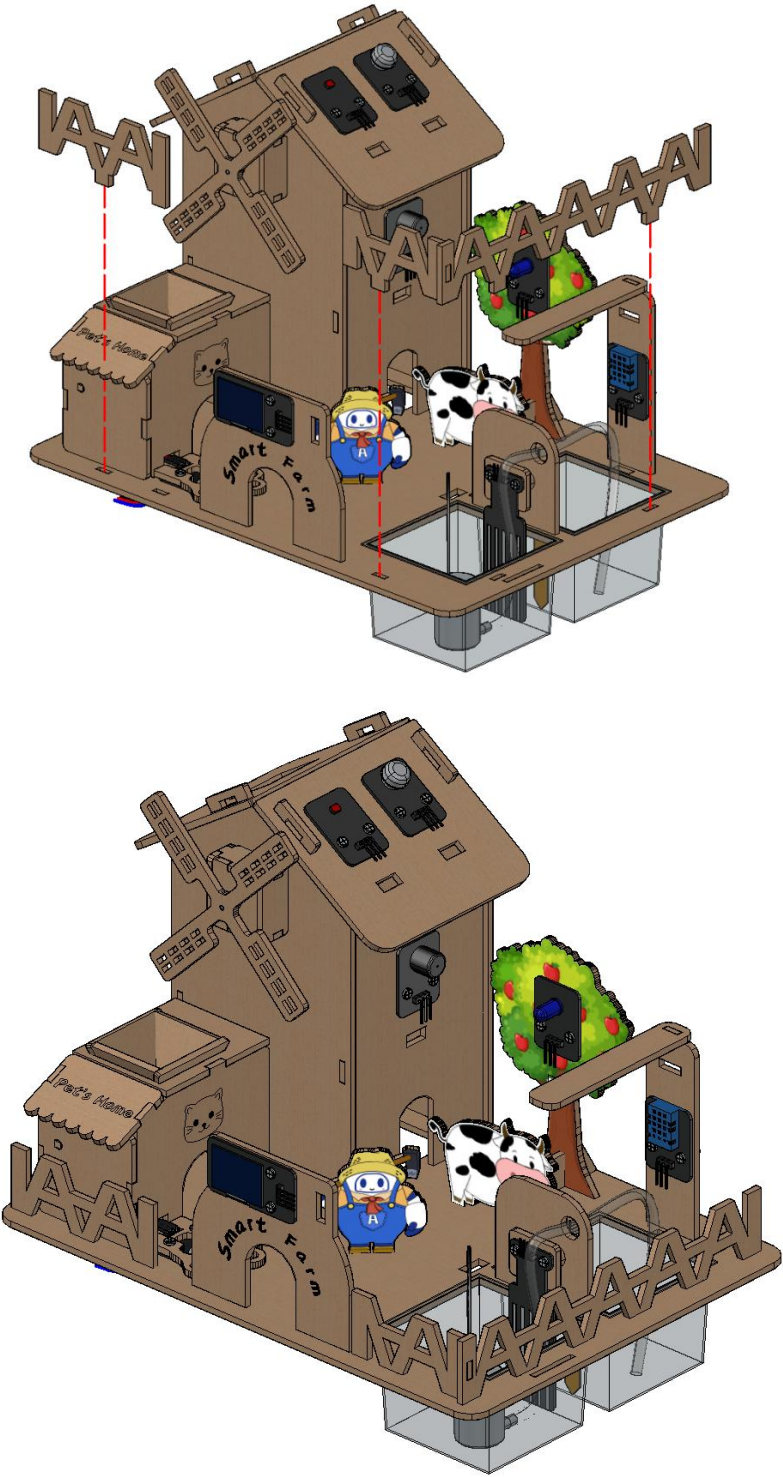
Part Lists	The assembled RGB LED Strip Wooden Board	The assembled DHT11 Sensor Wooden Board	The assembled Wooden Board C
Splicing Diagram			
Notes	<p>1. The line of RGB light belt is passed through the hole of temperature and humidity fixed Wooden Board, and then the two boards are fixed, and then the whole is fixed on the Wooden Board C;</p> <p>2. The RGB lamp belt module is connected to pin 13, and the temperature and humidity sensor is connected to pin 23.</p>		

Step 15 Assemble the farm growing area

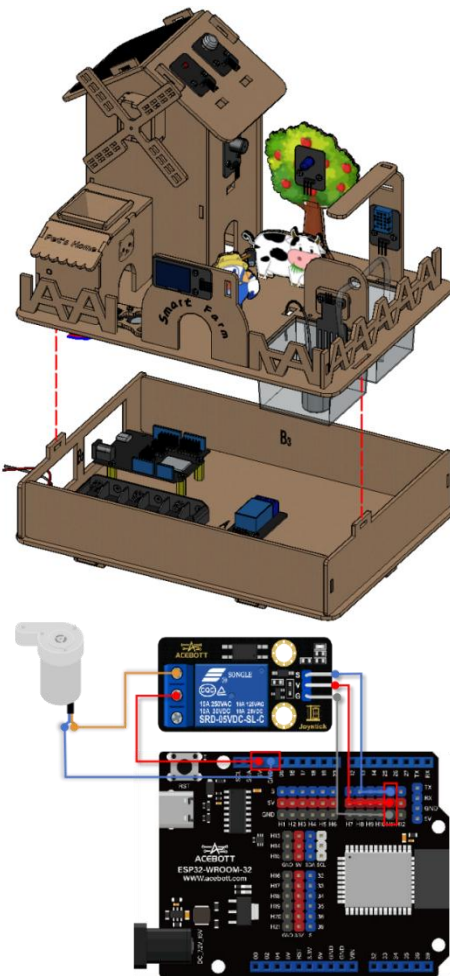
15.5 Assemble the water pump

Part Lists	Water pump*1	Water pipe*1	The assembled middle partition plate
Splicing Diagram			
Notes	<p>The water pump is put into a tank on one side of the water level sensor, then the outlet of the water pump is connected to the water pipe, and the water pipe is put into the tank on the other side through the hole in the middle divider.</p>		

Step 16 Assembled fence

Part Lists	Short fence Wooden Board*2	Short fence Wooden Board*1	The assembled Wooden Board C
Splicing Diagram			

Step 17 Water pump wiring

Part Lists	Water pump*1	5V Relay Module*1	ESP32 Max V1.0 Controller Board*1
	The assembled Wooden Board C1	The assembled base	
Splicing Diagram			

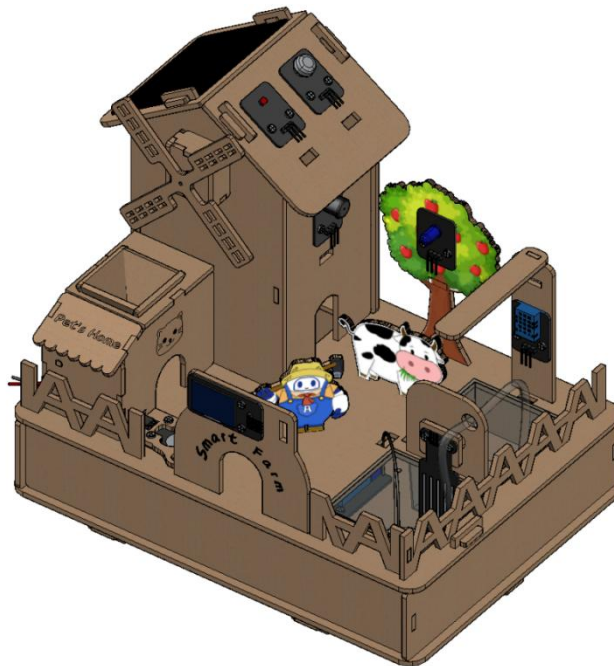
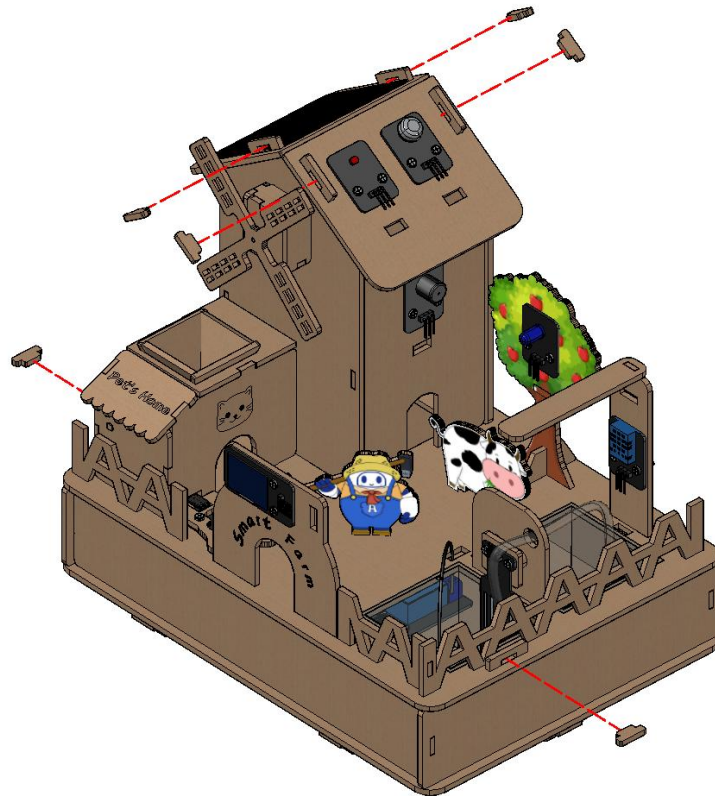
Notes	<ol style="list-style-type: none">1. The pink end of the water pump is connected to the NO port of the relay, the gray line of the water pump is connected to the GND of the main board, one end of the public-to-public dupont line is connected to the COM port, and the other end of the public-to-public dupont line is connected to the 5V of the main board.2. Finally, connect the upper and lower parts of the structure.3. Please assemble 6 # 5 batteries in this step. (Batteries need to be supplied)
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Step 18 Assemble Lock

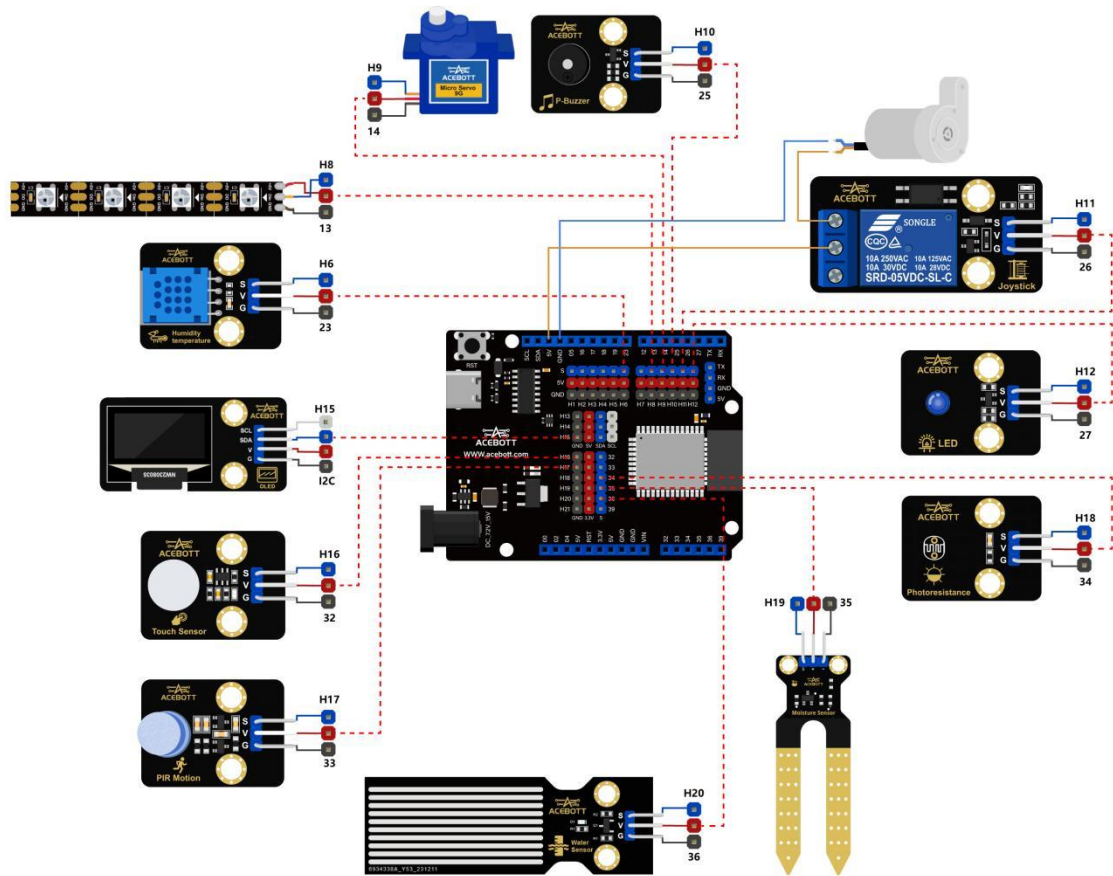
Part Lists

Lock*6

The assembled upper and lower structure whole

Splicing
Diagram

Step 19 Wiring diagram



1. Dupont lines are blue, red and black. The blue thread is connected to the S pin, the red thread to the V pin, and the black thread to the G pin;

2. The color of the servo wire is different from the ordinary dupont wire, with the red line connecting the V pin, the brown line connecting the G pin, and the yellow line connecting the S pin.

Step 20 Wiring instructions

Number	IO	Module/Sensor
H6	23	DHT11 Sensor
H8	13	RGB LED Strip
H9	14	Servo SG90 9G
H10	25	P-Buzzer Module
H11	26	5V Relay Module
H12	27	Blue LED Module
H15	I2C	OLED Module
H16	32	Touch Sensor
H17	33	PIR Motion Sensor
H18	34	Light Sensor
H19	35	Moisture Sensor
H20	36	Water Sensor