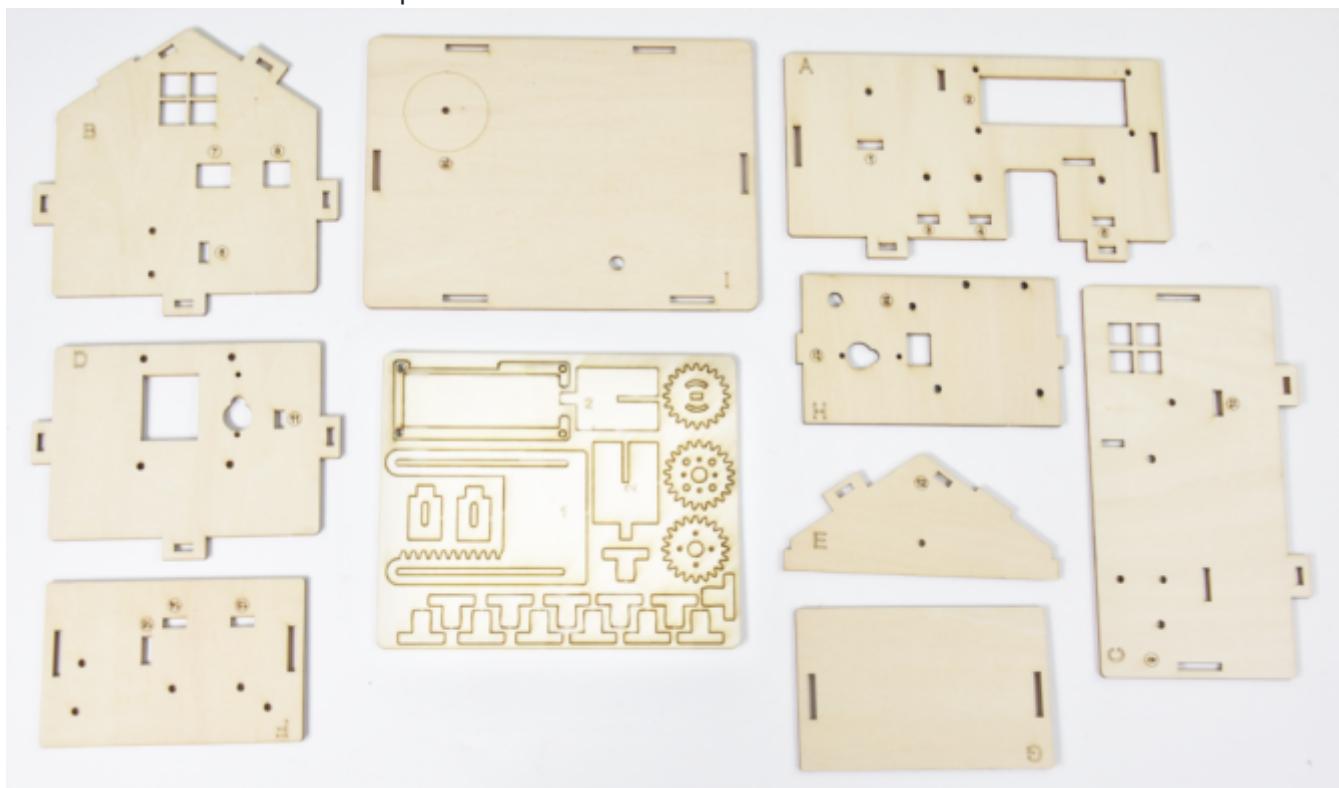


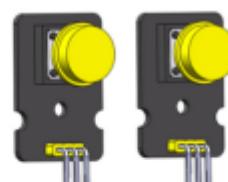
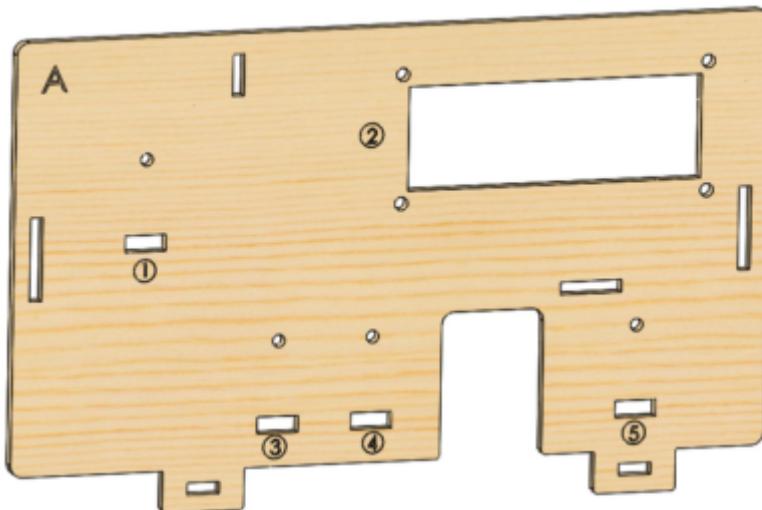
## 2. Installation

Check board A~I and other parts



### Step 1

Needed Components:



**Button module**

**X2**



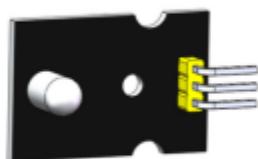
**M3 Nickel plated nut**

**X4**



**M3\*10MM Round head screw**

**X4**



**White LED**

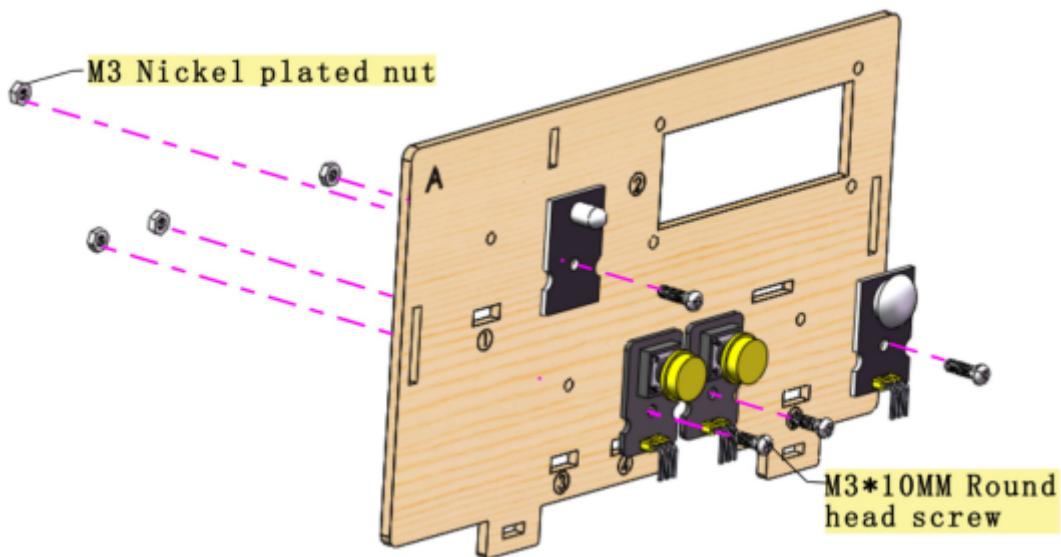
**X1**



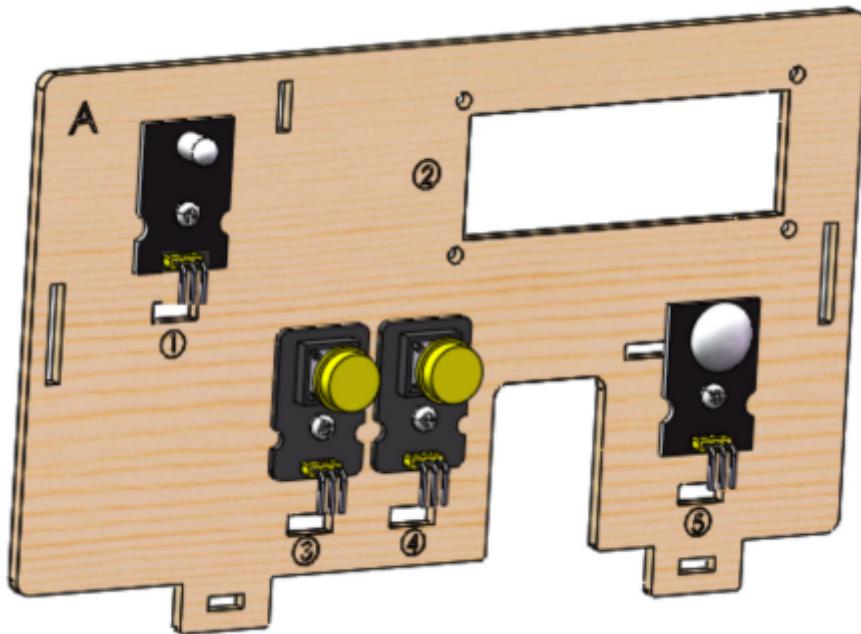
**PIR motion sensor**

**X1**

Installation Diagram:



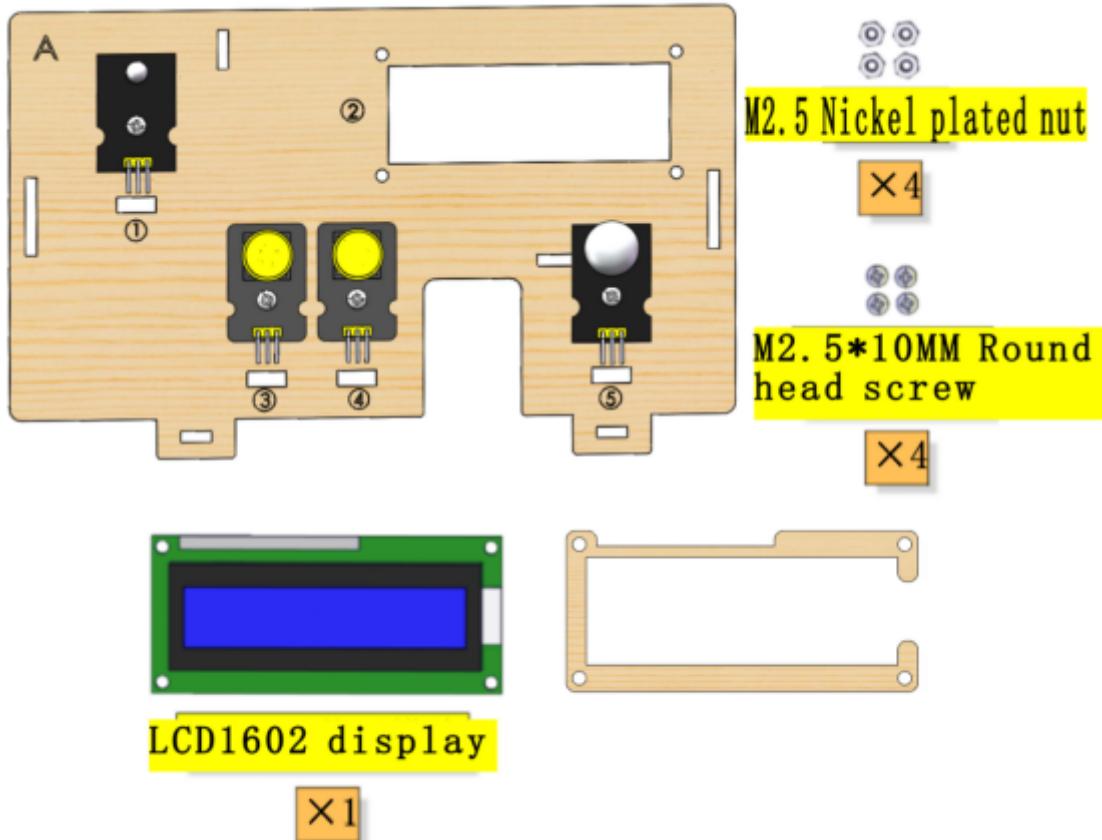
Prototype:



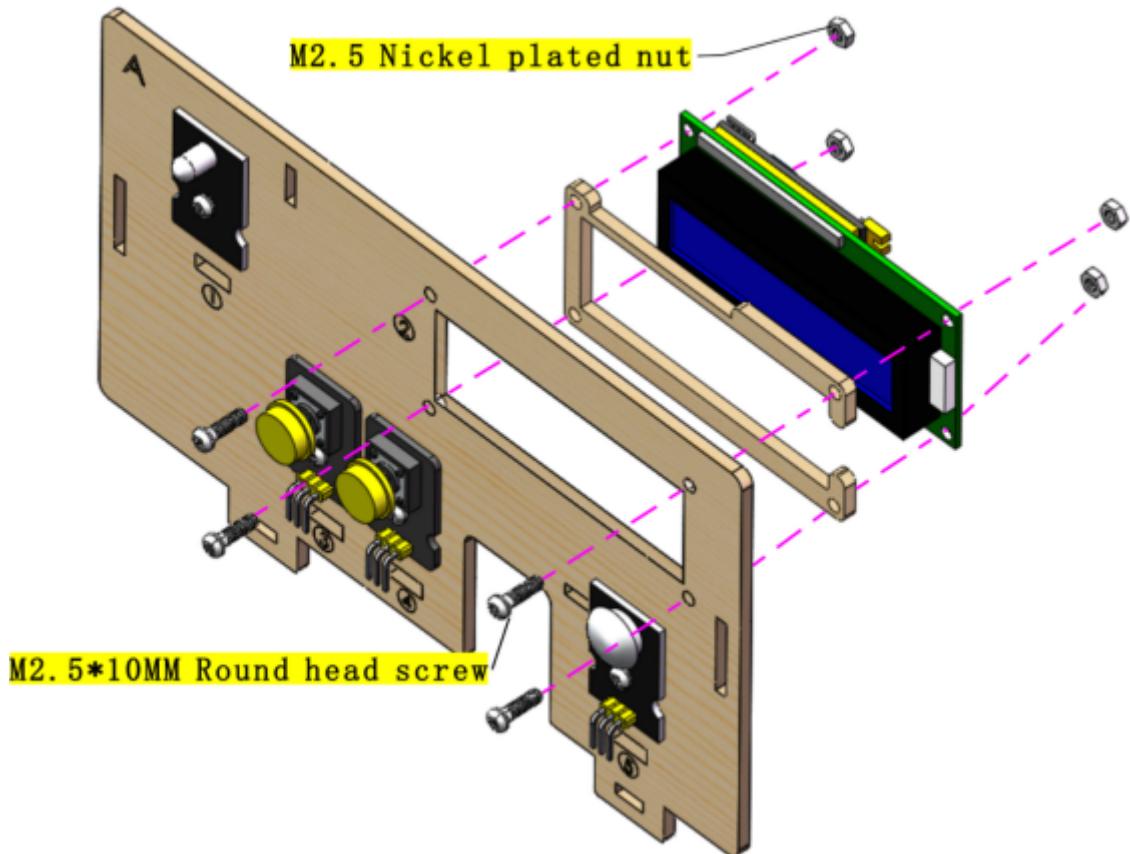
Step 2

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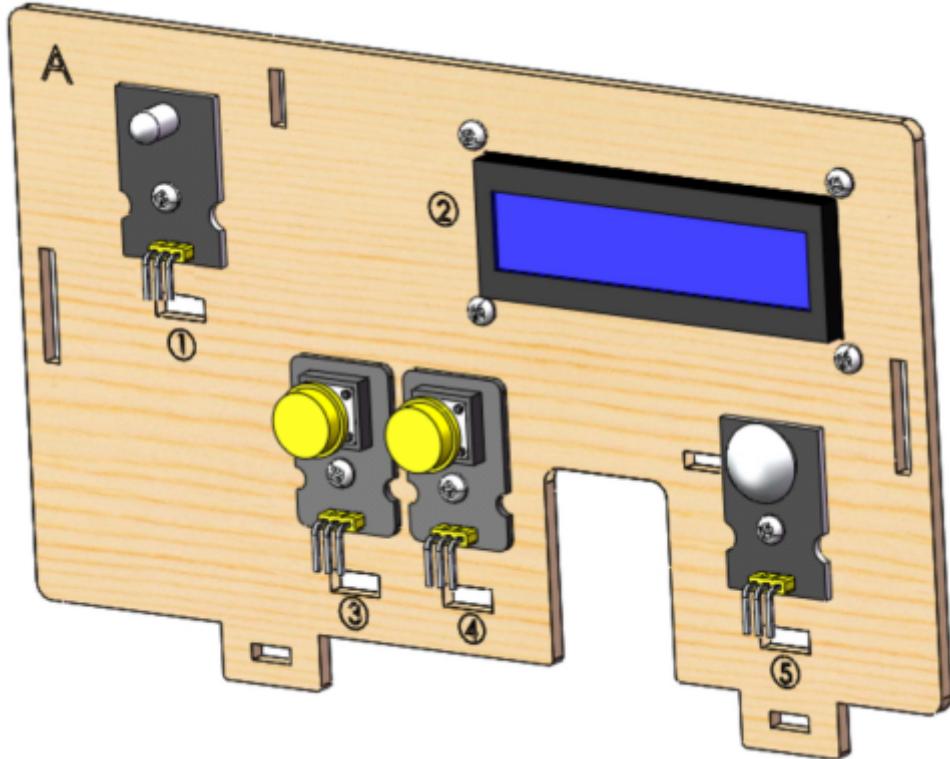
Needed Components:



Installation Diagram:

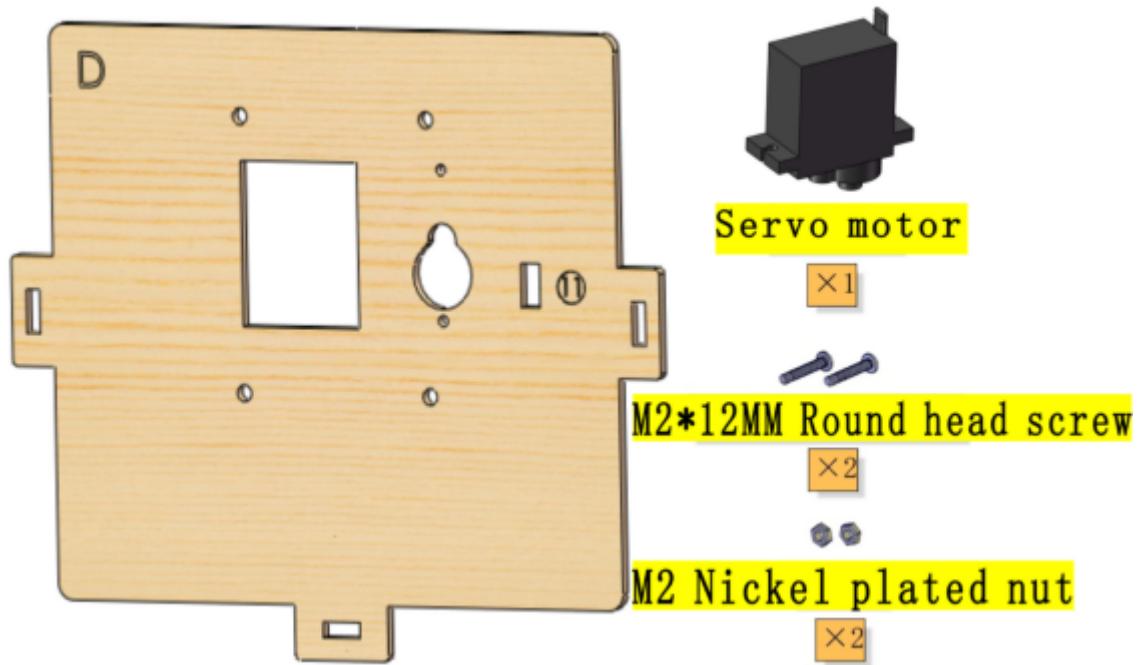


Prototype:

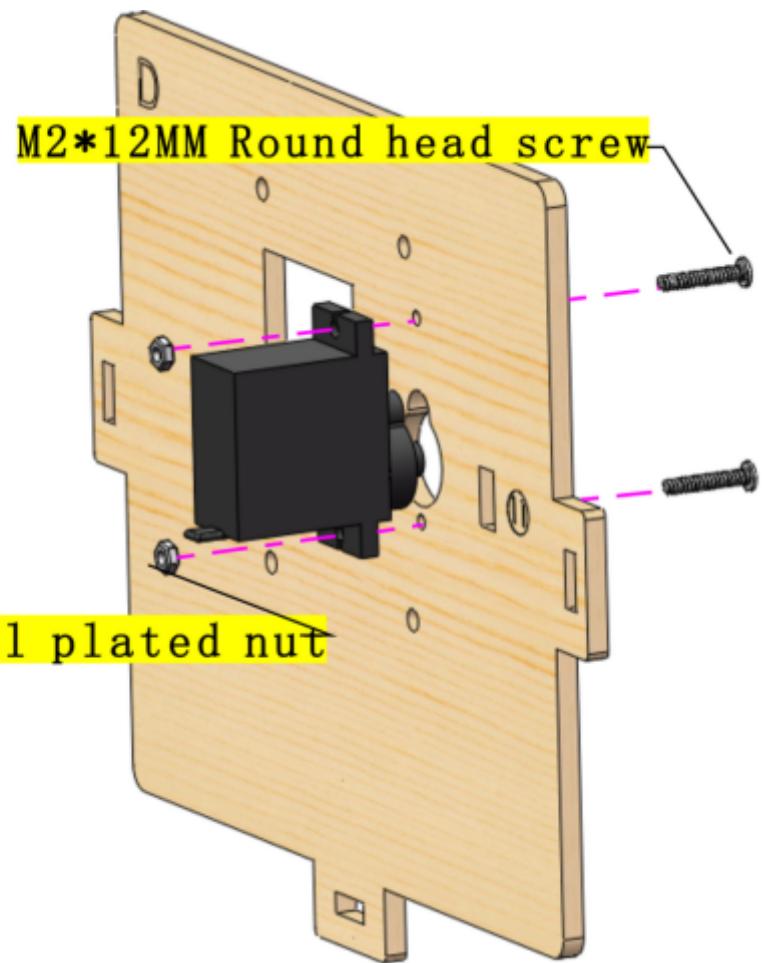


## Step 3

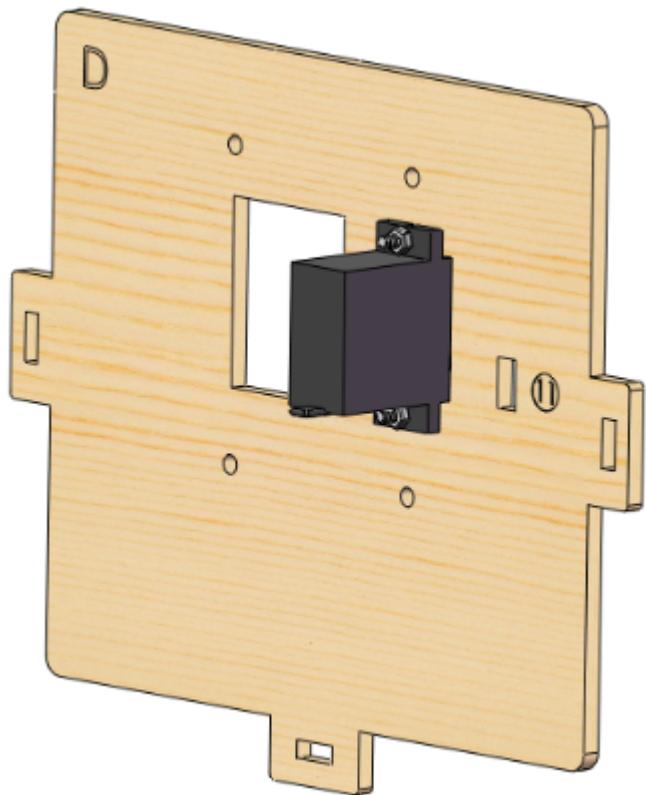
Needed Components:



Installation Diagram:

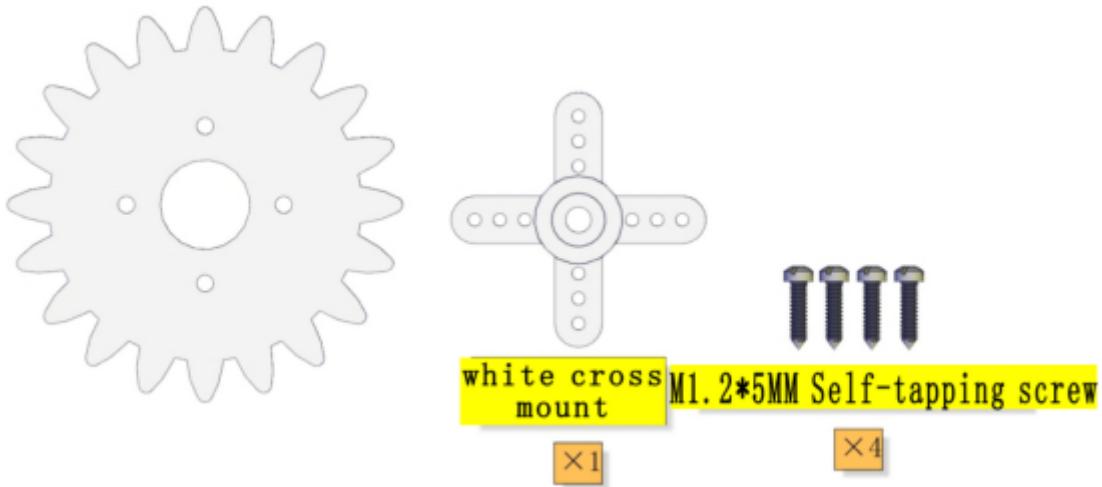


Prototype:

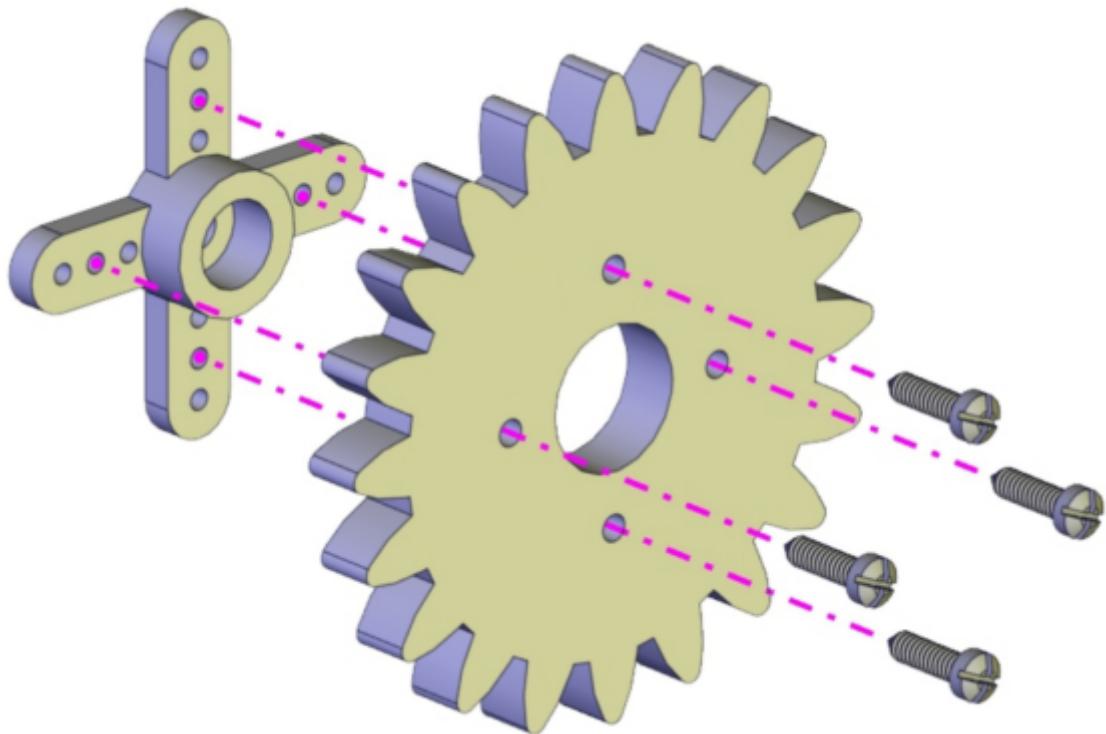


Step 4

Needed Components:



Installation Diagram:

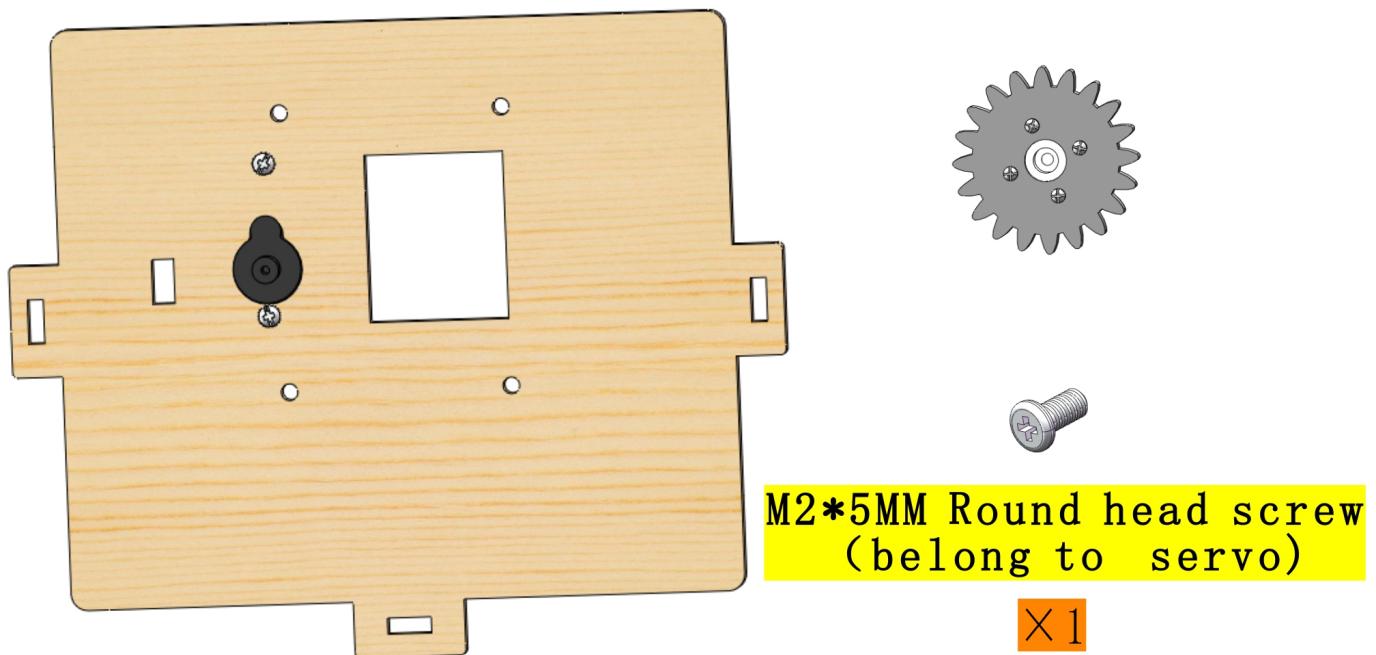


Prototype:

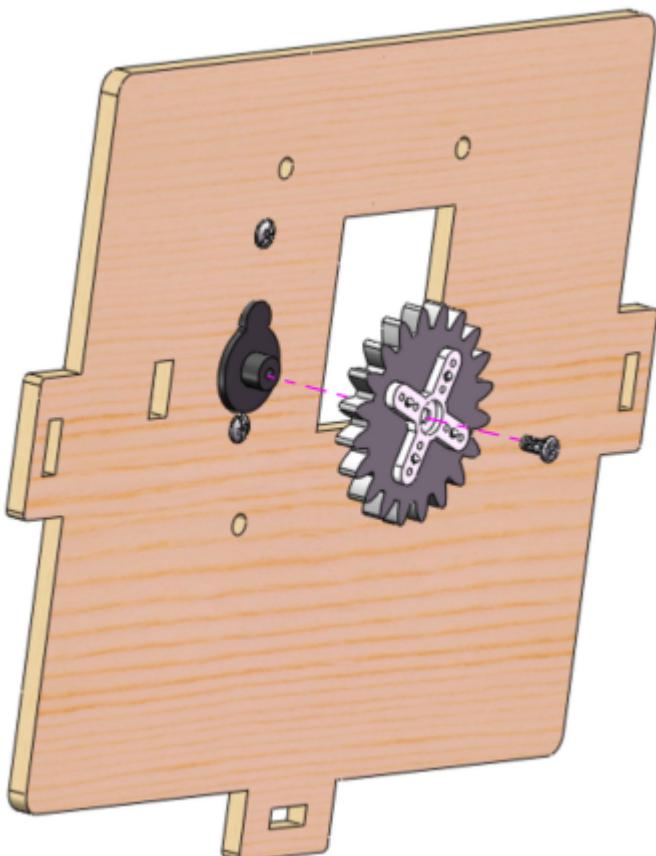


## Step 5

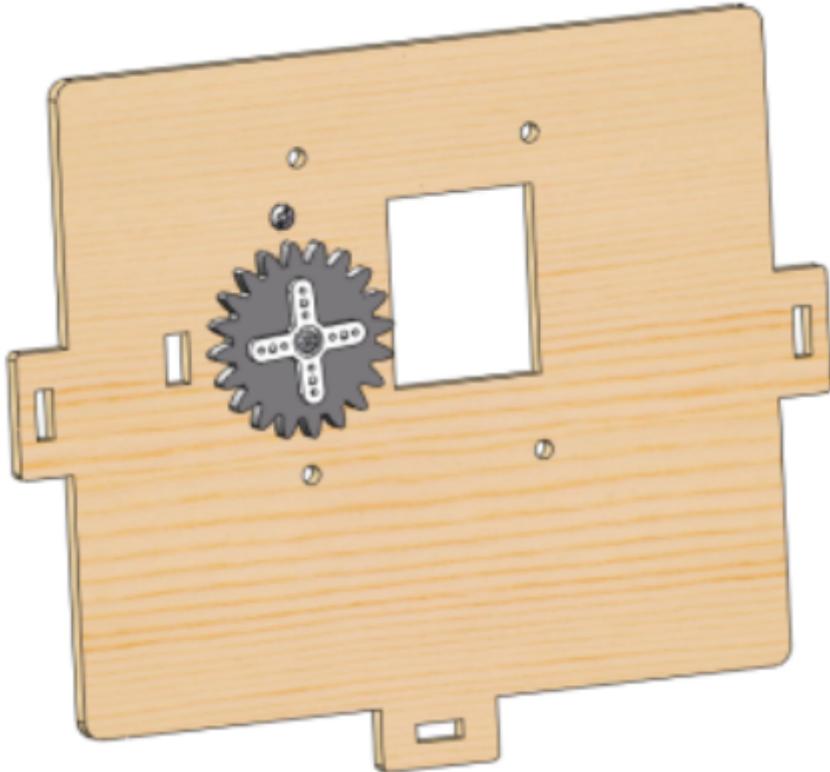
Needed Components:



Installation Diagram:

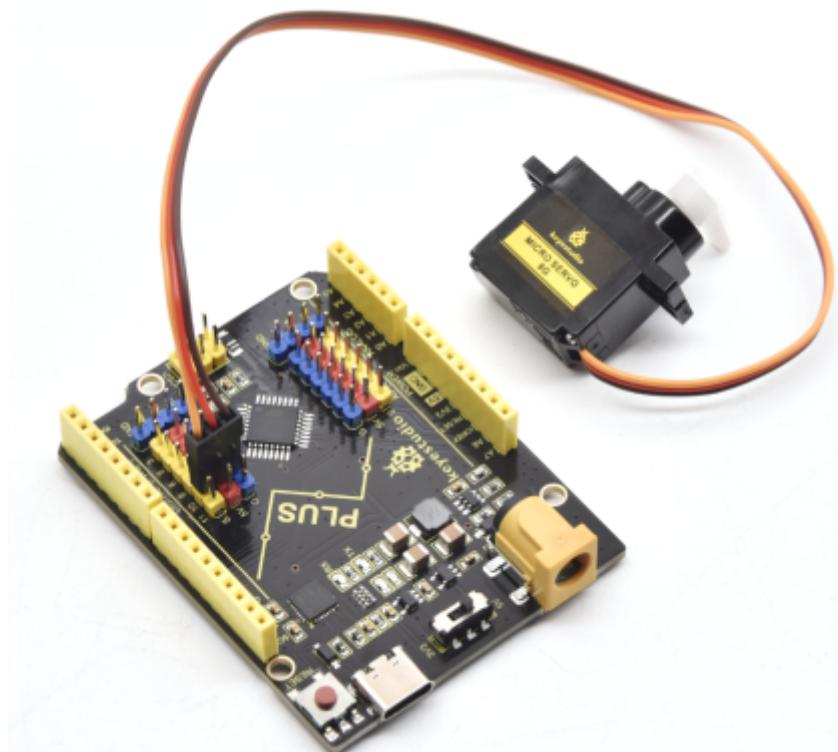


Prototype:



Set the angle of the Servo which controls the window to 90°:

Servo for window	PLUS Mainboard
Brown line	G
Red line	V
Orange line	S (10)



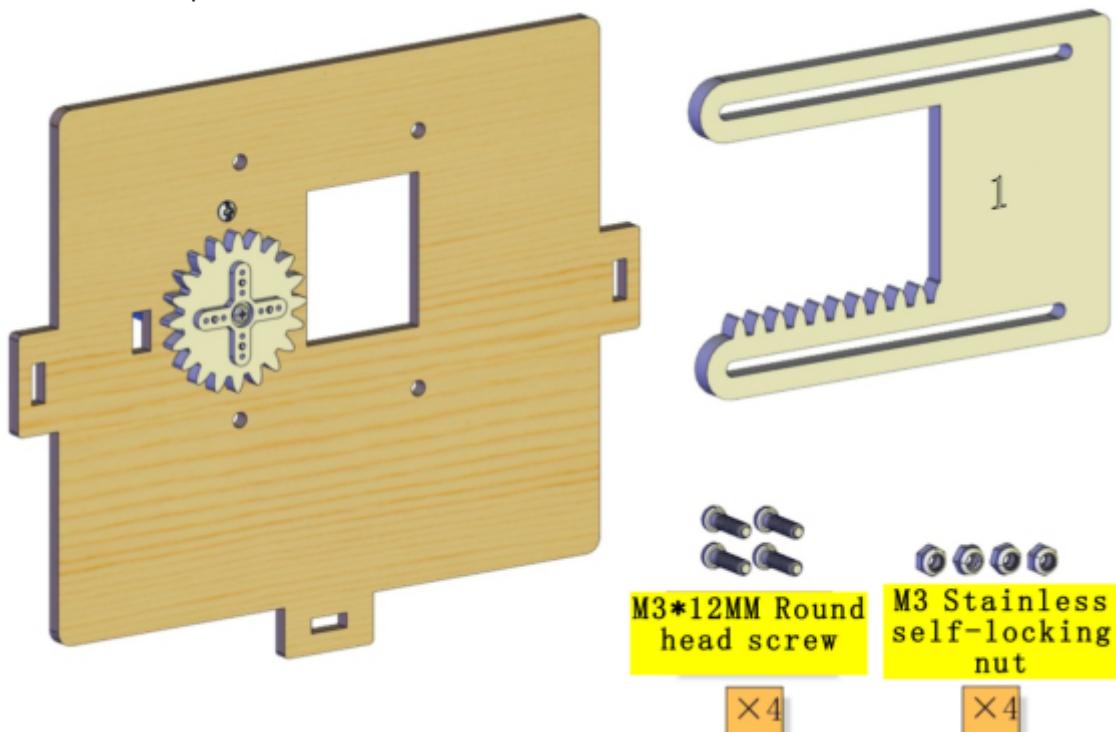
Wire up as shown in the picture and upload the code to the expansion board. Install the Servo after it automatically turn to 90°.

(Note: This step is necessary.)

« 2. Installation > Steering gear reset code		↻	Search Steering ge...
Name	Date modified	Type	Size
Project_00_Window_Servo	3/6/2023 4:17 PM	SB3 File	45 KB

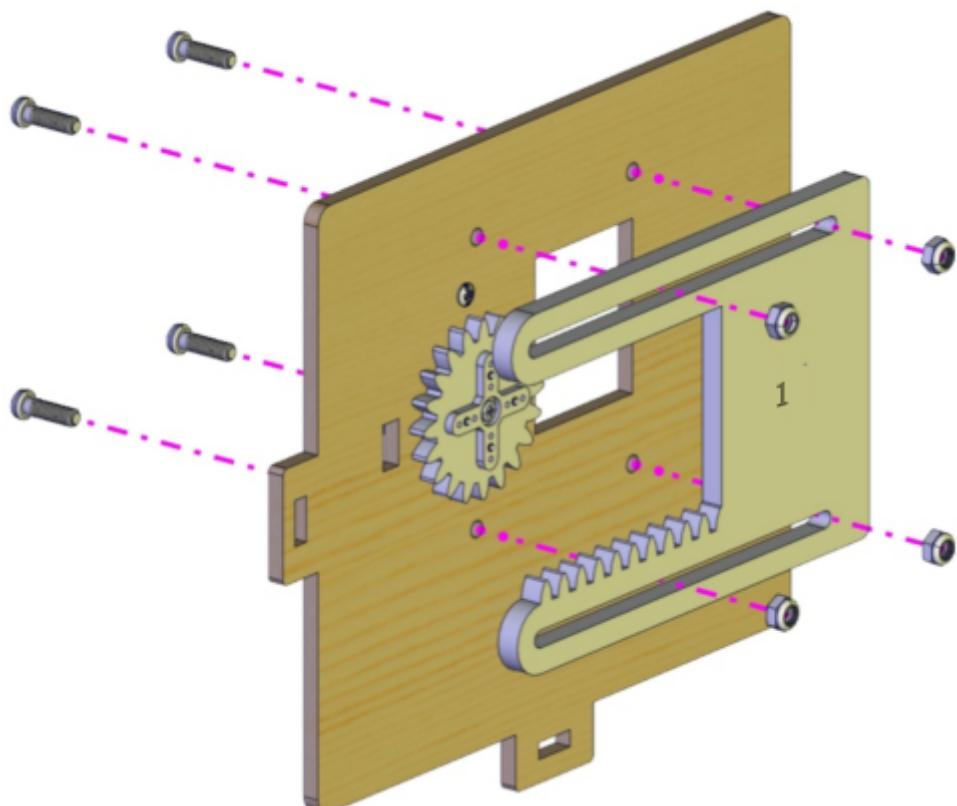
## Step 6

Needed Components:

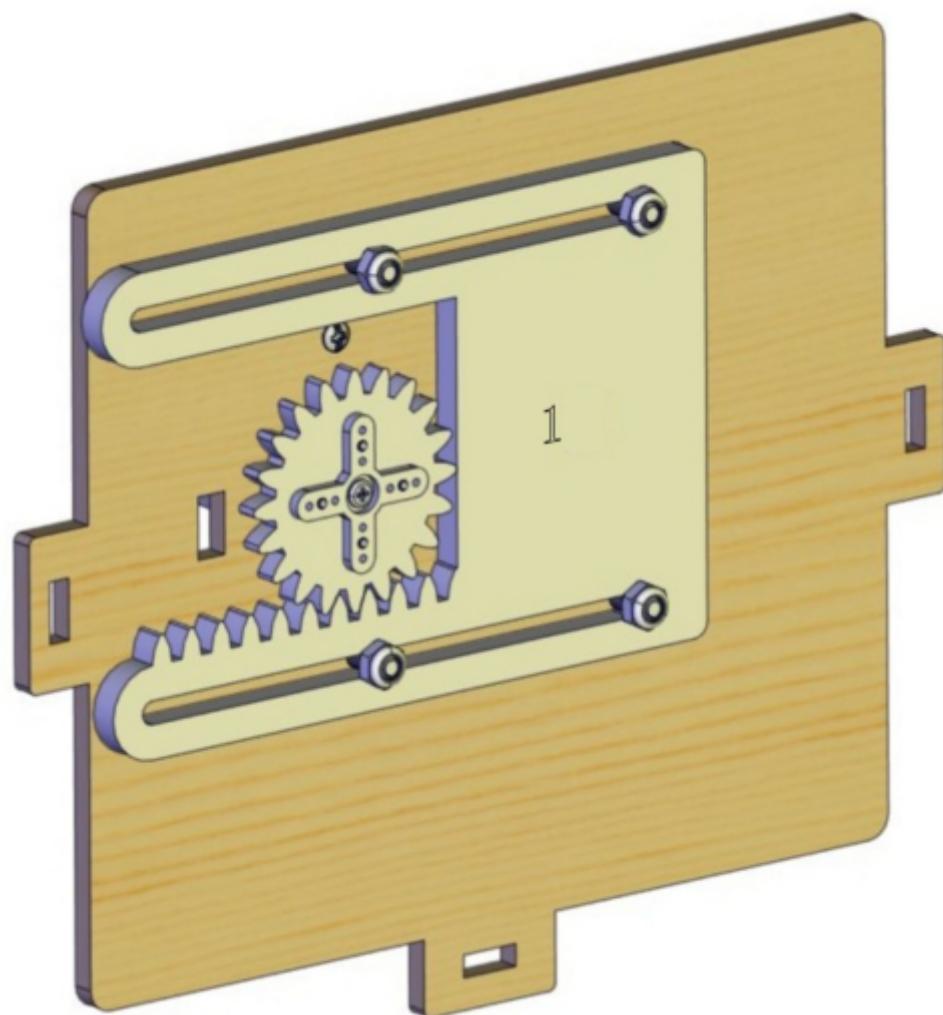


Installation Diagram:

(Please do not tighten the self-locking nut when installing it. The window is closed during installation as shown below:)

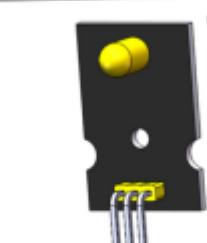
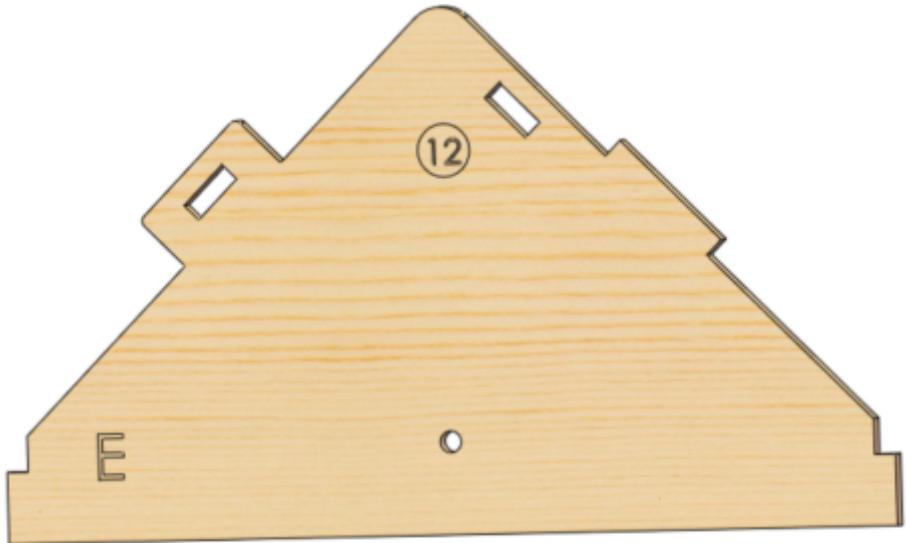


Prototype:



Step 7

Needed Components:



Yellow LED  
×1

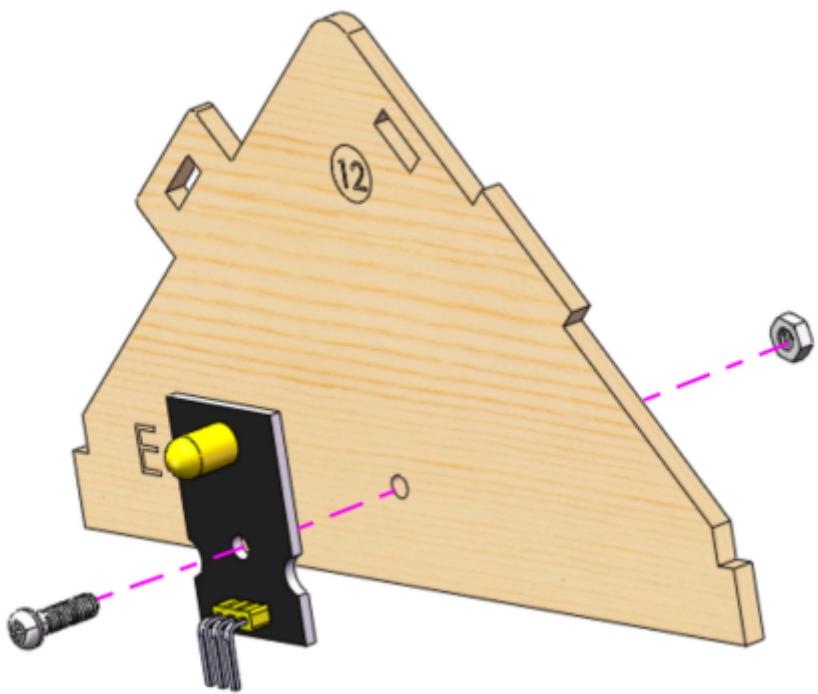


M3\*10MM round head screw  
×1

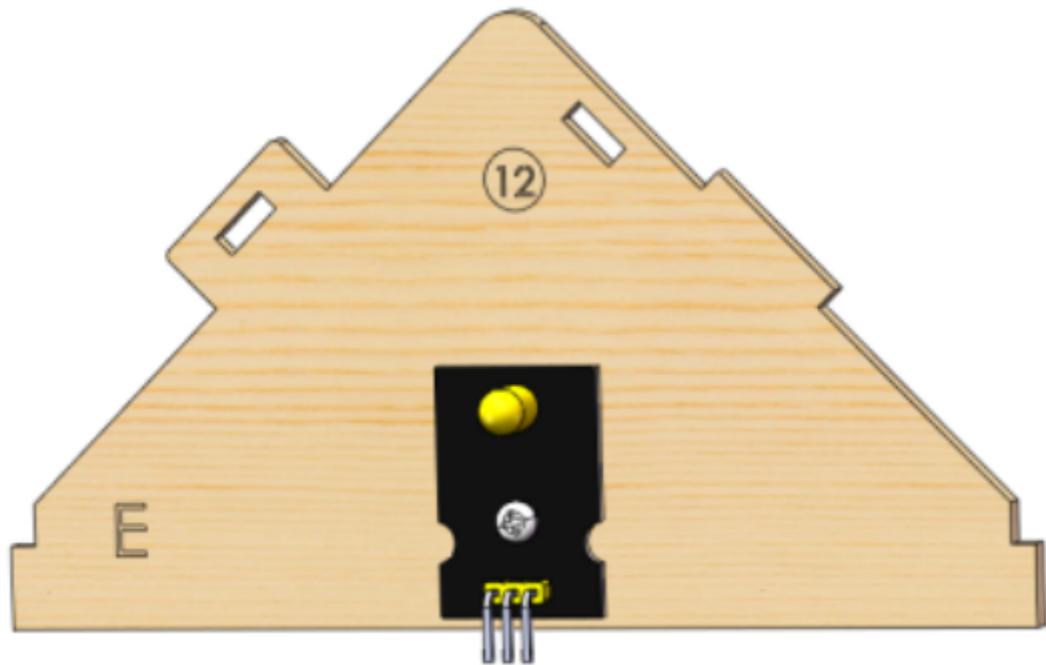


M3 nickel plated nut  
×1

Installation Diagram:

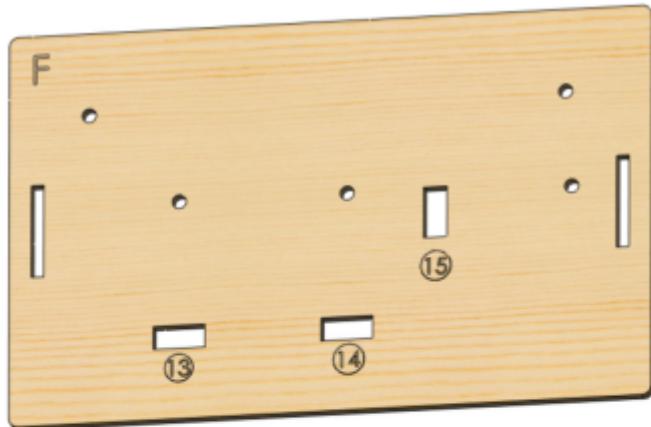


Prototype:



## Step 8

Needed Components:



M3\*10MM Round head screw\*3      ×3

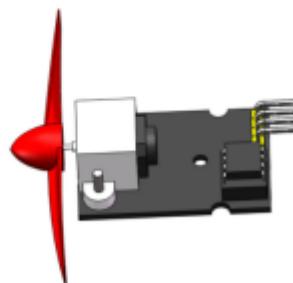
M3 Nickel plated nut\*3      ×3



Photocell sensor\*1      ×1

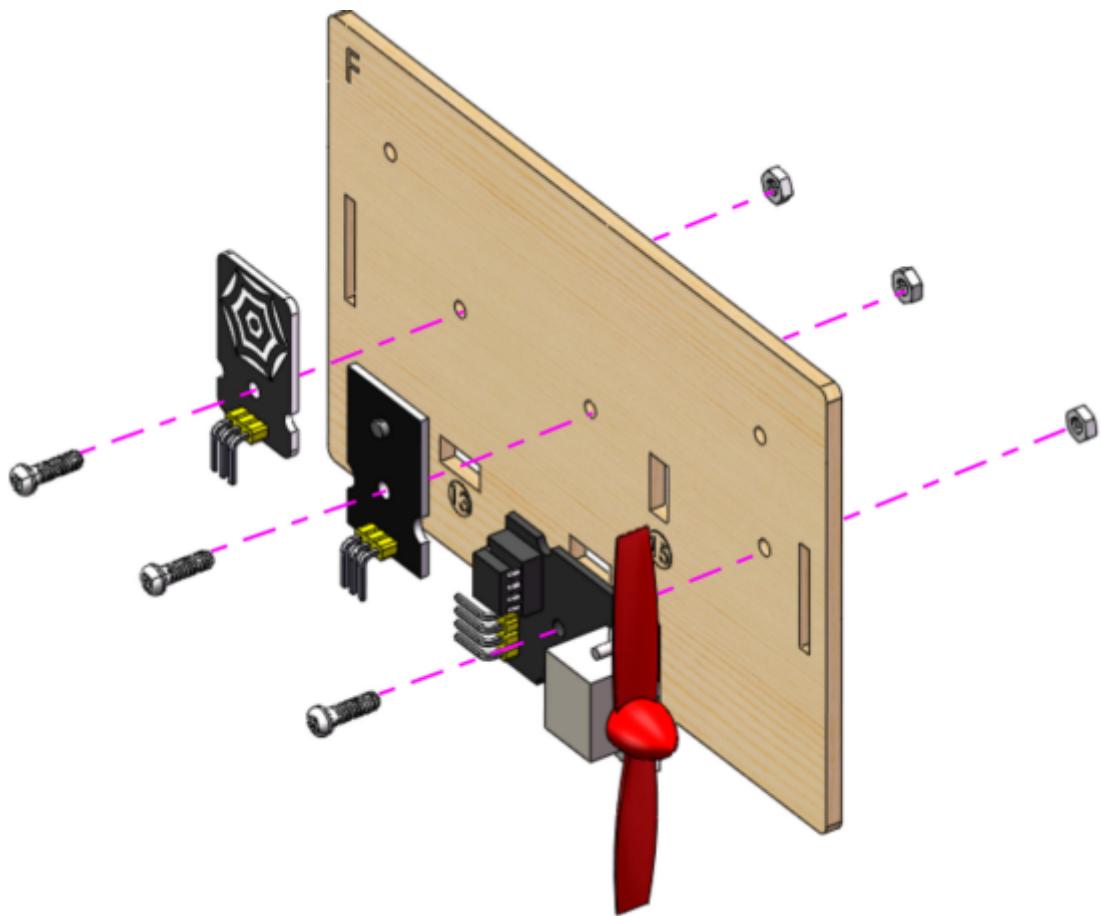


Steam sensor\*1      ×1

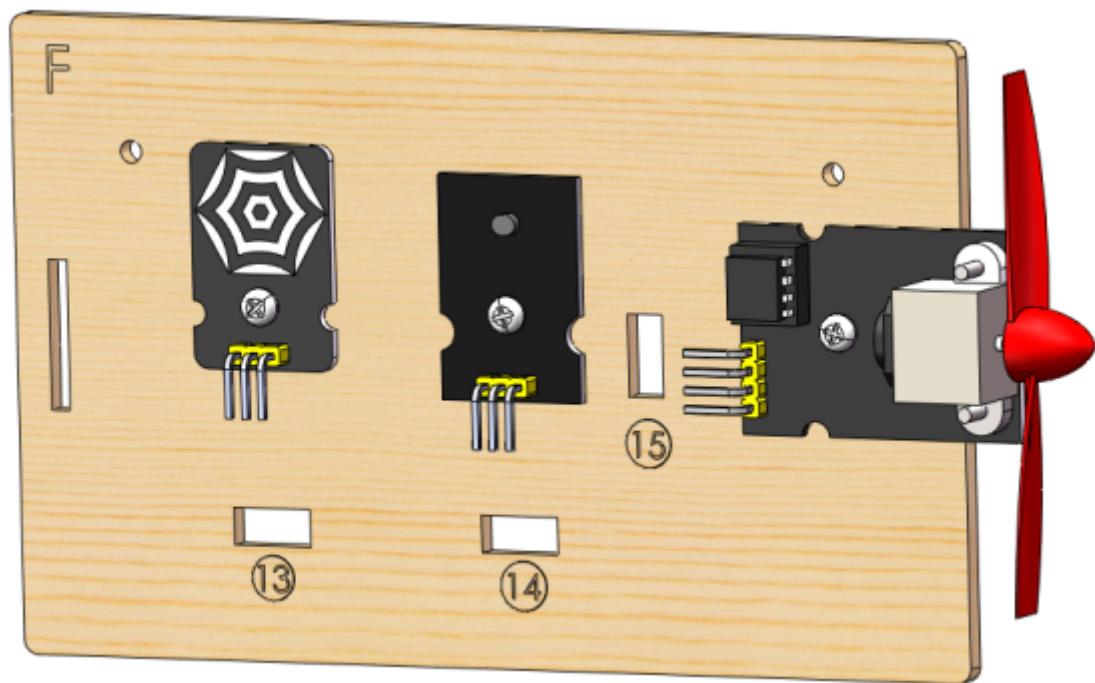


Fan module      ×1

Installation Diagram:



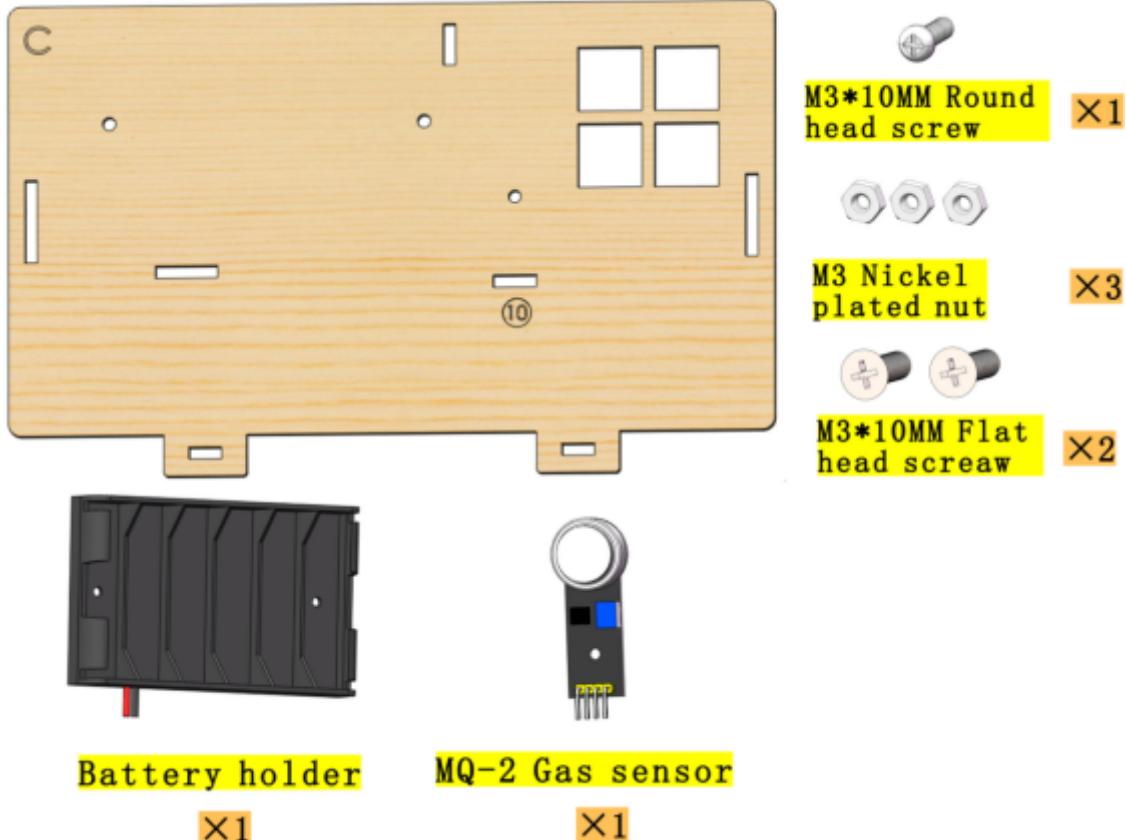
Prototype:



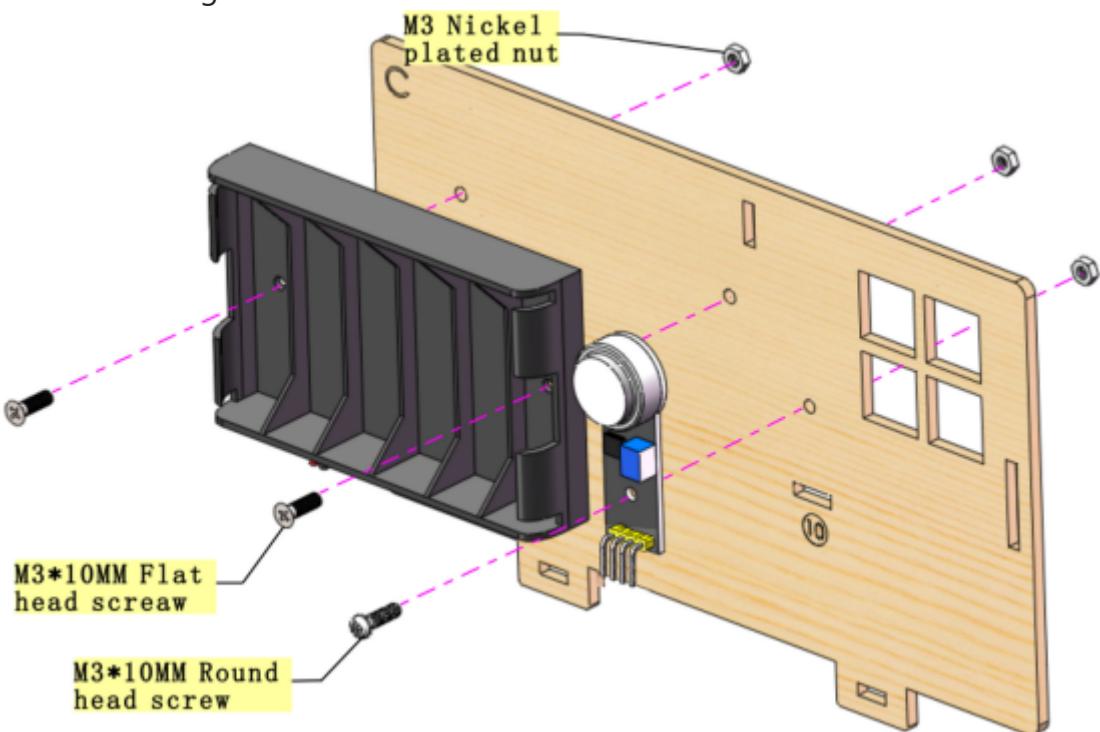
## Step 9

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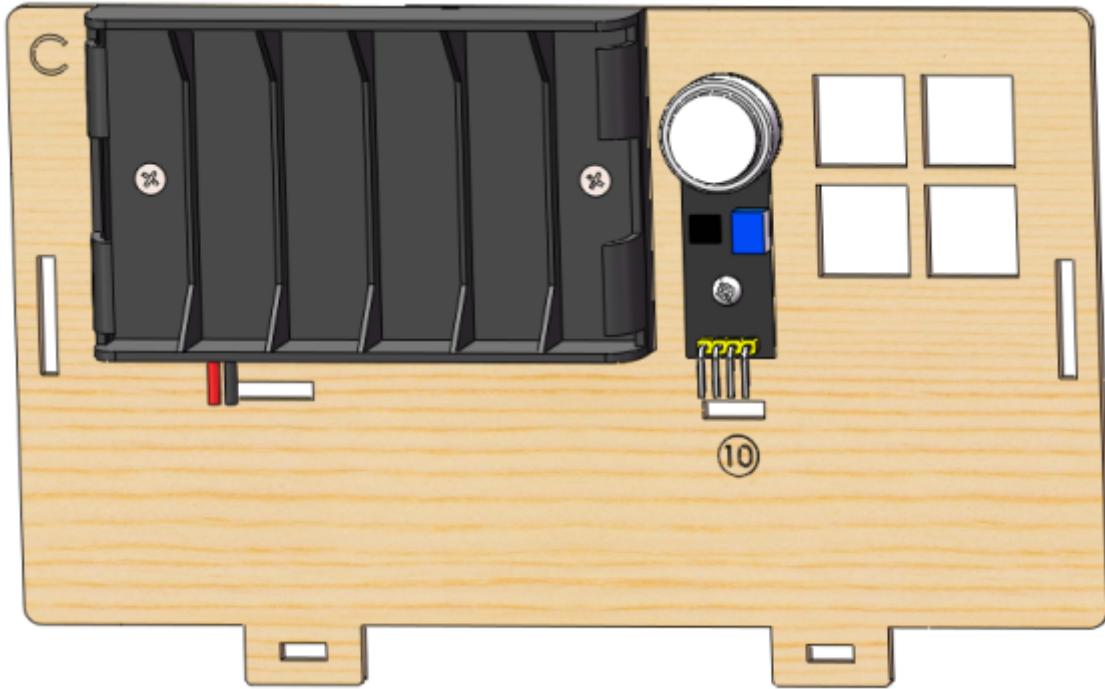
Needed Components:



Installation Diagram:

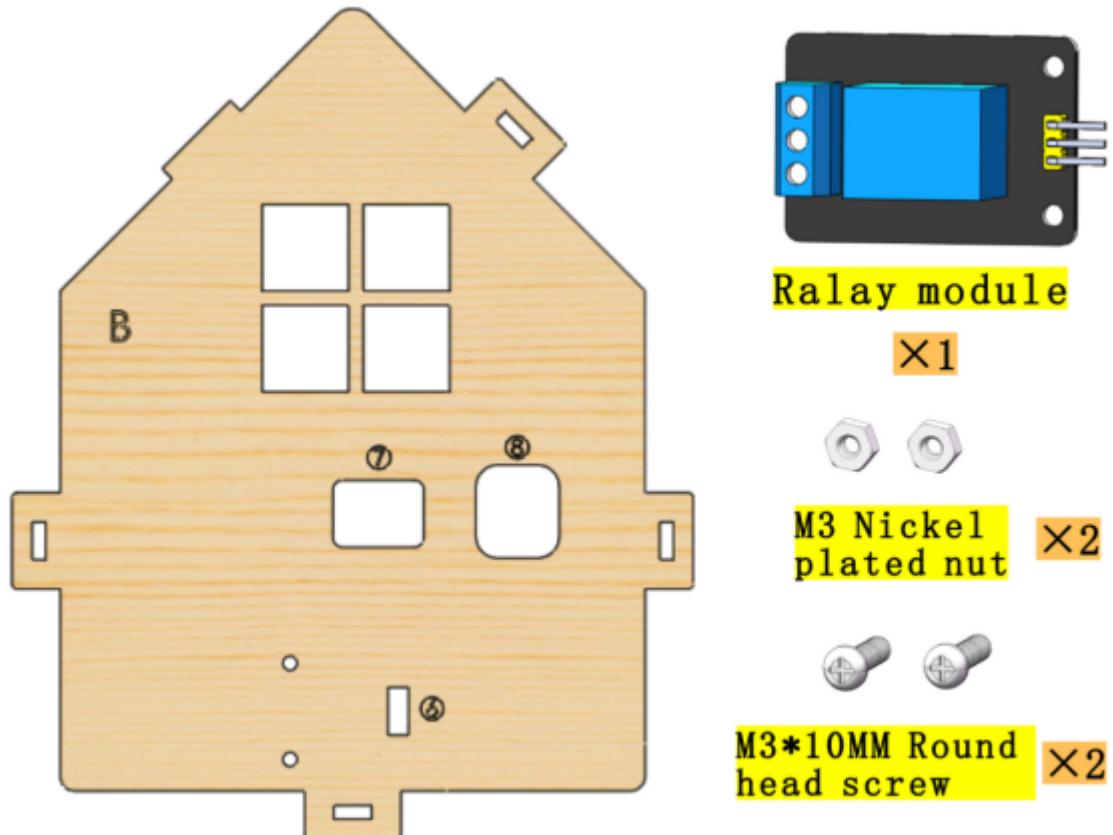


Prototype:

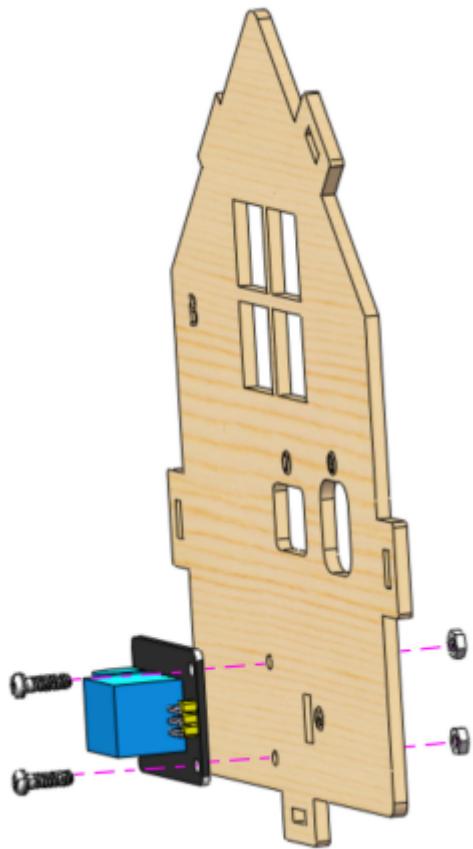


## Step 10

Needed Components:



Installation Diagram:

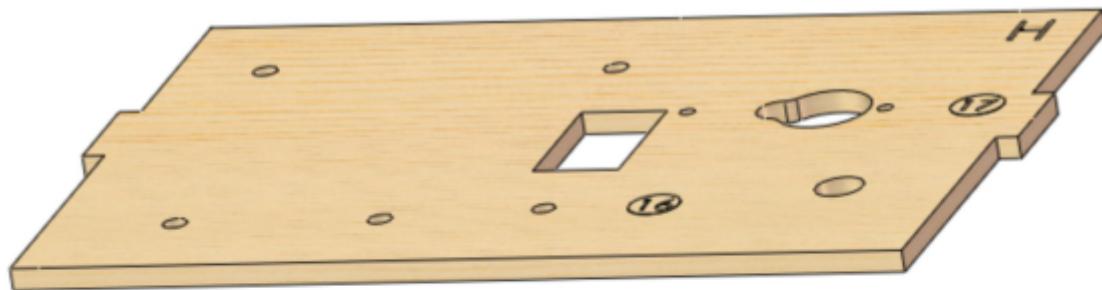


Prototype:



Step 11

Needed Components:



Passive buzzer  
×1

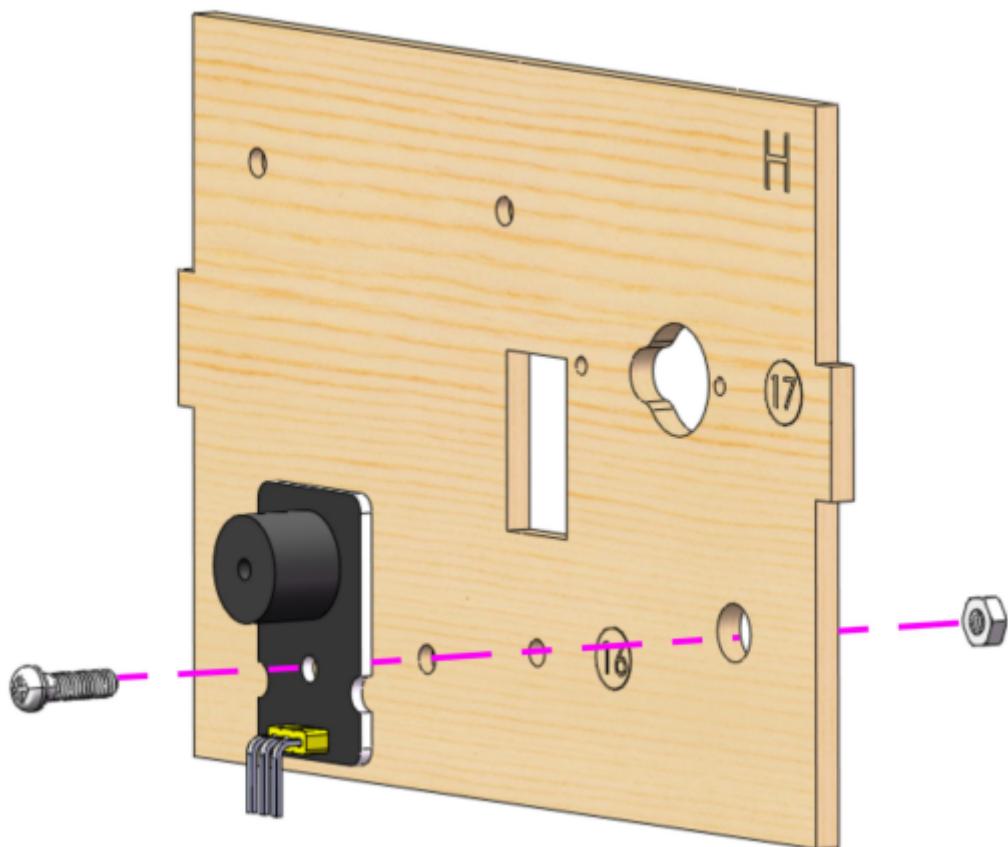


M3\*10MM Round  
head screw  
×1

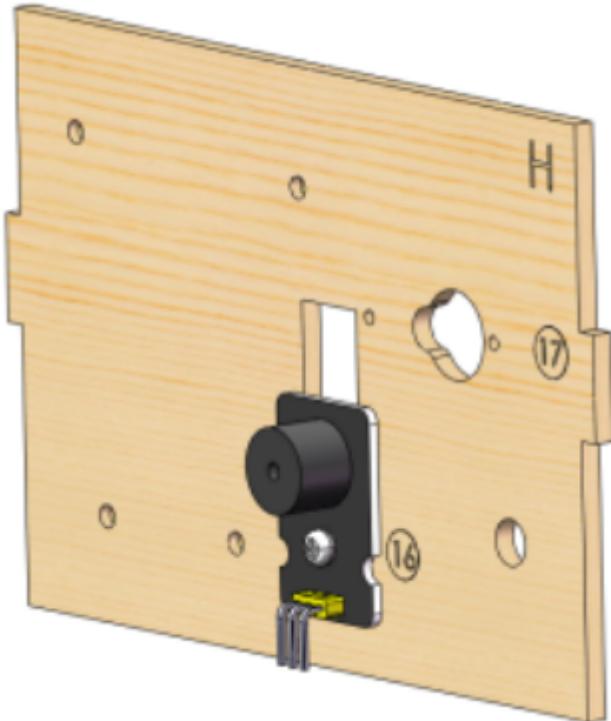


M3 Nickel  
plated nut  
×3

Installation Diagram:

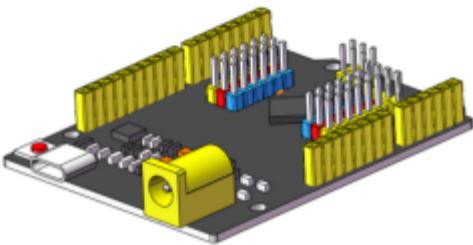
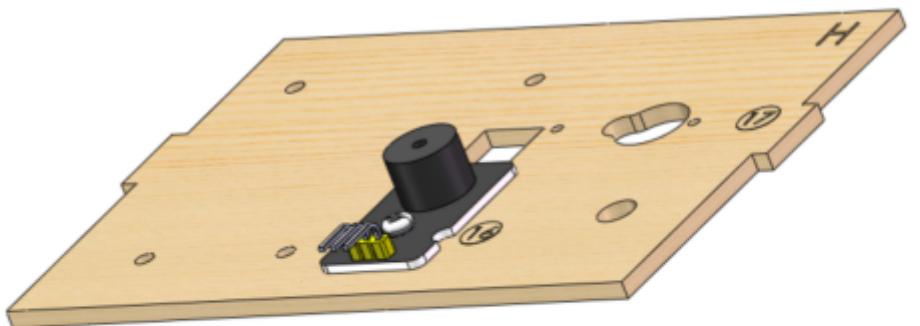


Prototype:



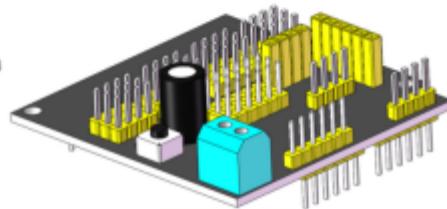
## Step 12

Needed Components:



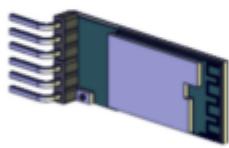
Keyestudio PLUS  
control board

×1



Sensor  
shield

×1



Bluetooth  
module

×1



M3\*6MM Round head  
screw

×8

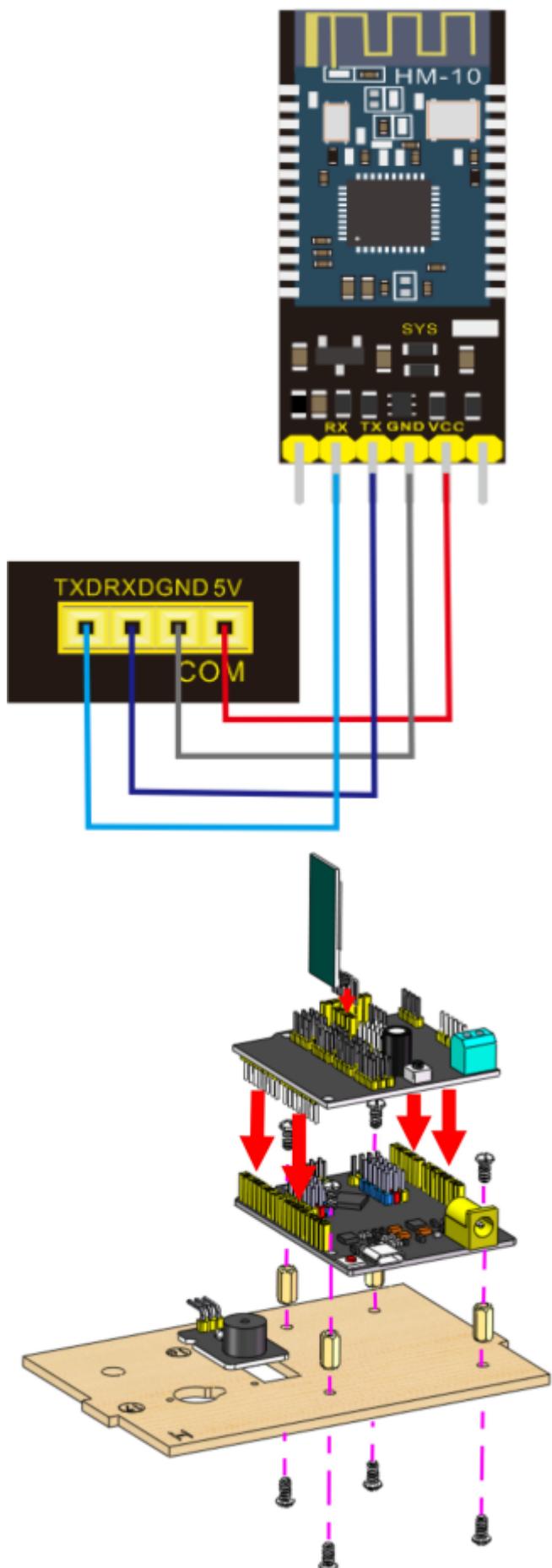


M3\*10MM Dual-pass  
copper pillar

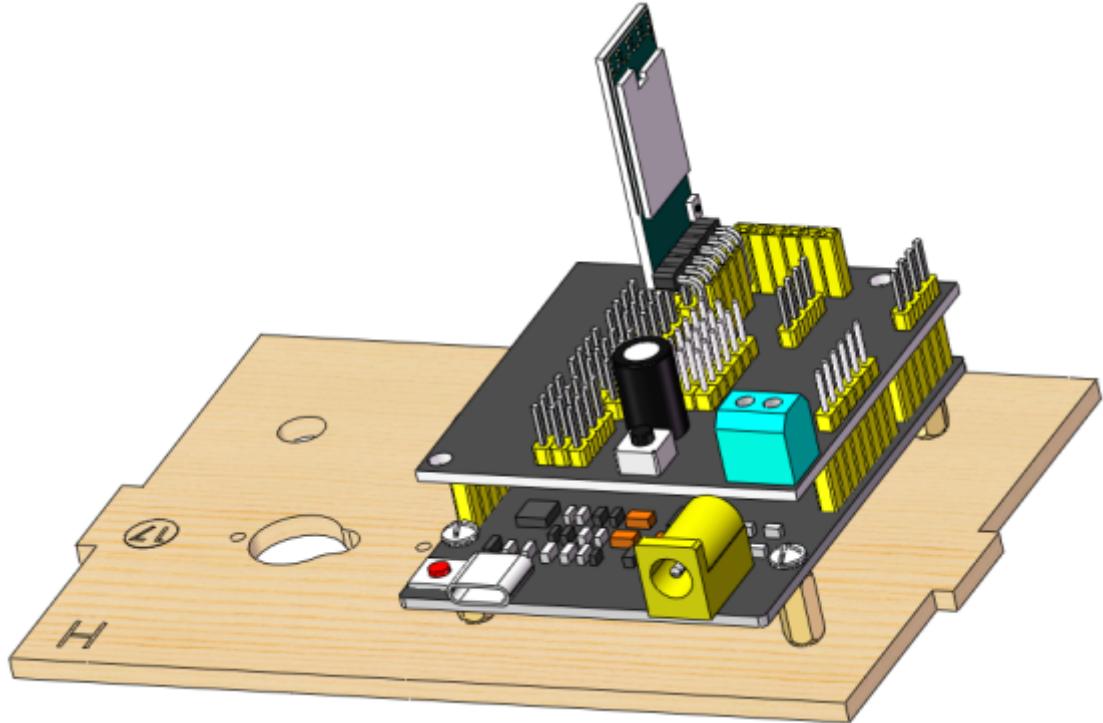
×4

Installation Diagram:

Bluetooth module	Expansion board
VCC	5V
GND	GND
TXD	RXD
RXD	TXD

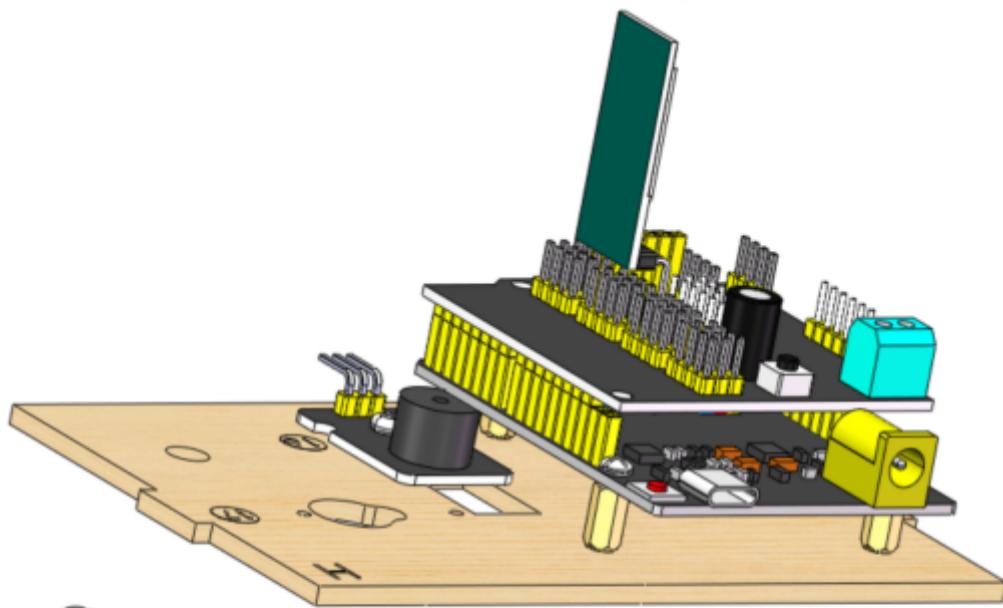


Prototype:



## Step 13

Needed Components:



Servo motor

×1



M2\*12MM Round head screw

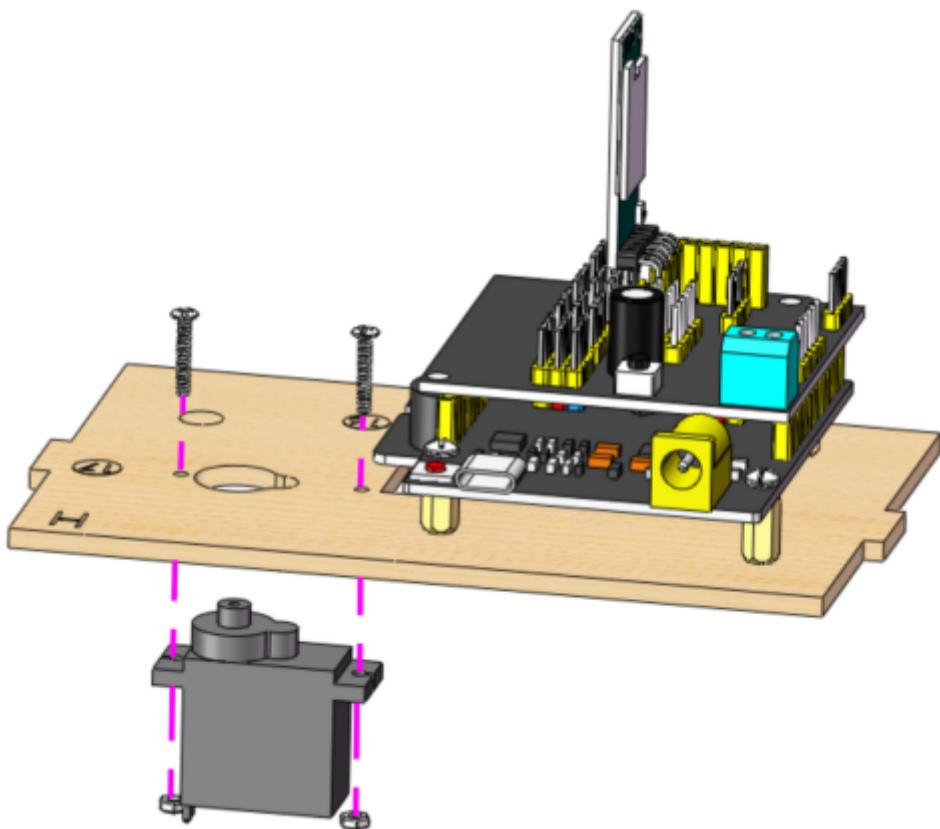
×2



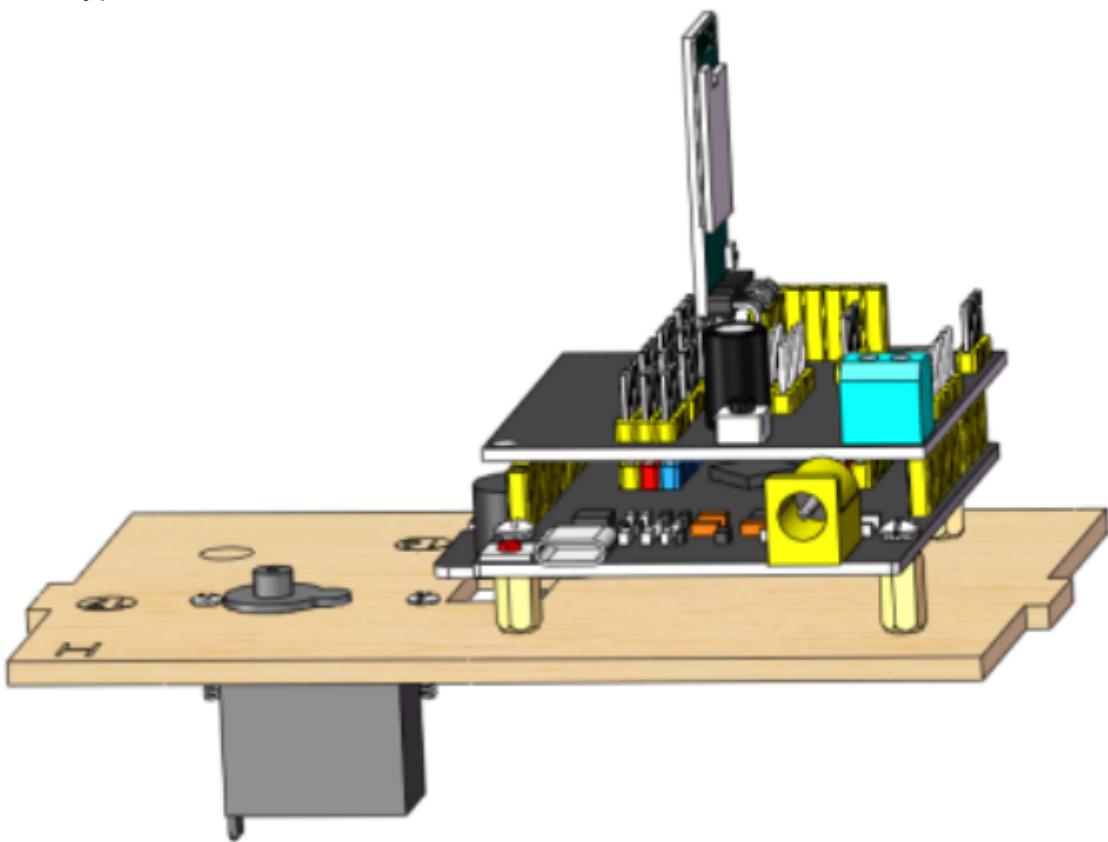
M2 Nickel plated nut

×2

Installation Diagram:



Prototype:

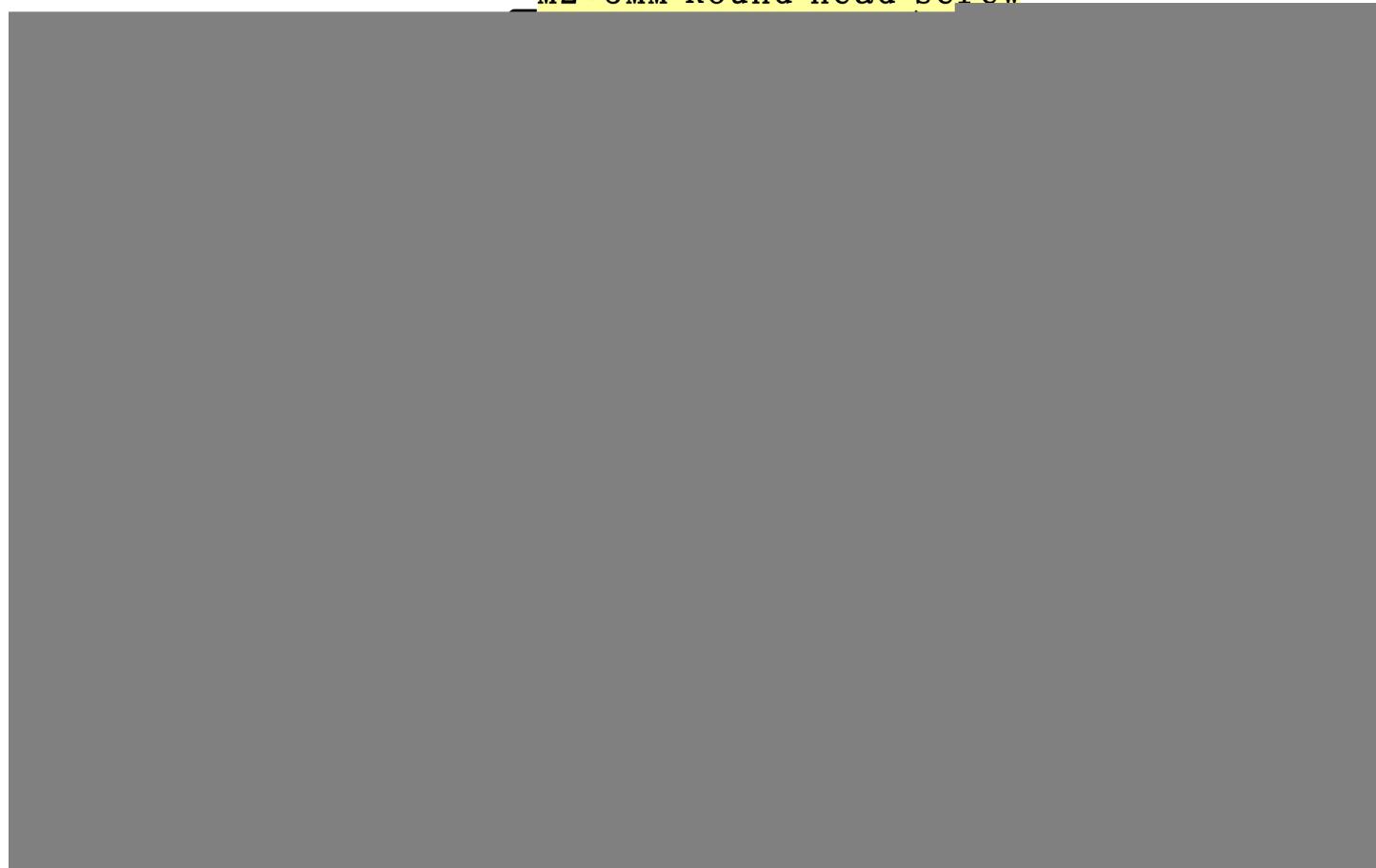


## Step 14

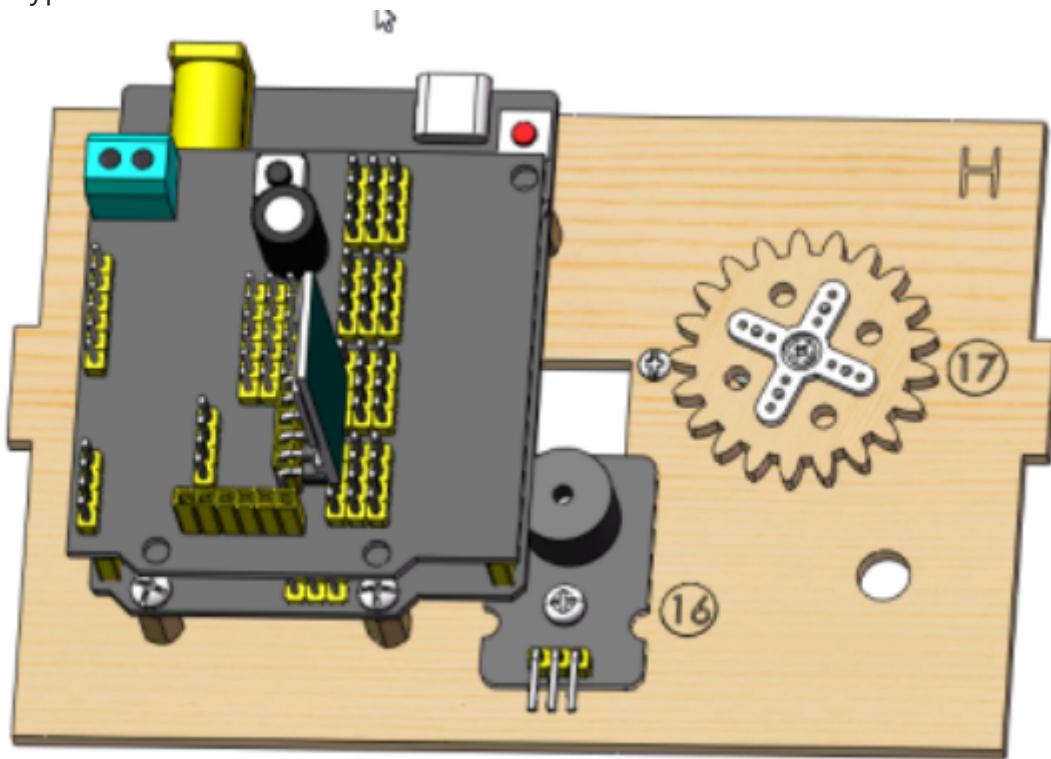
Needed Components:

Installation Diagram:

M2\*5MM Round head screw

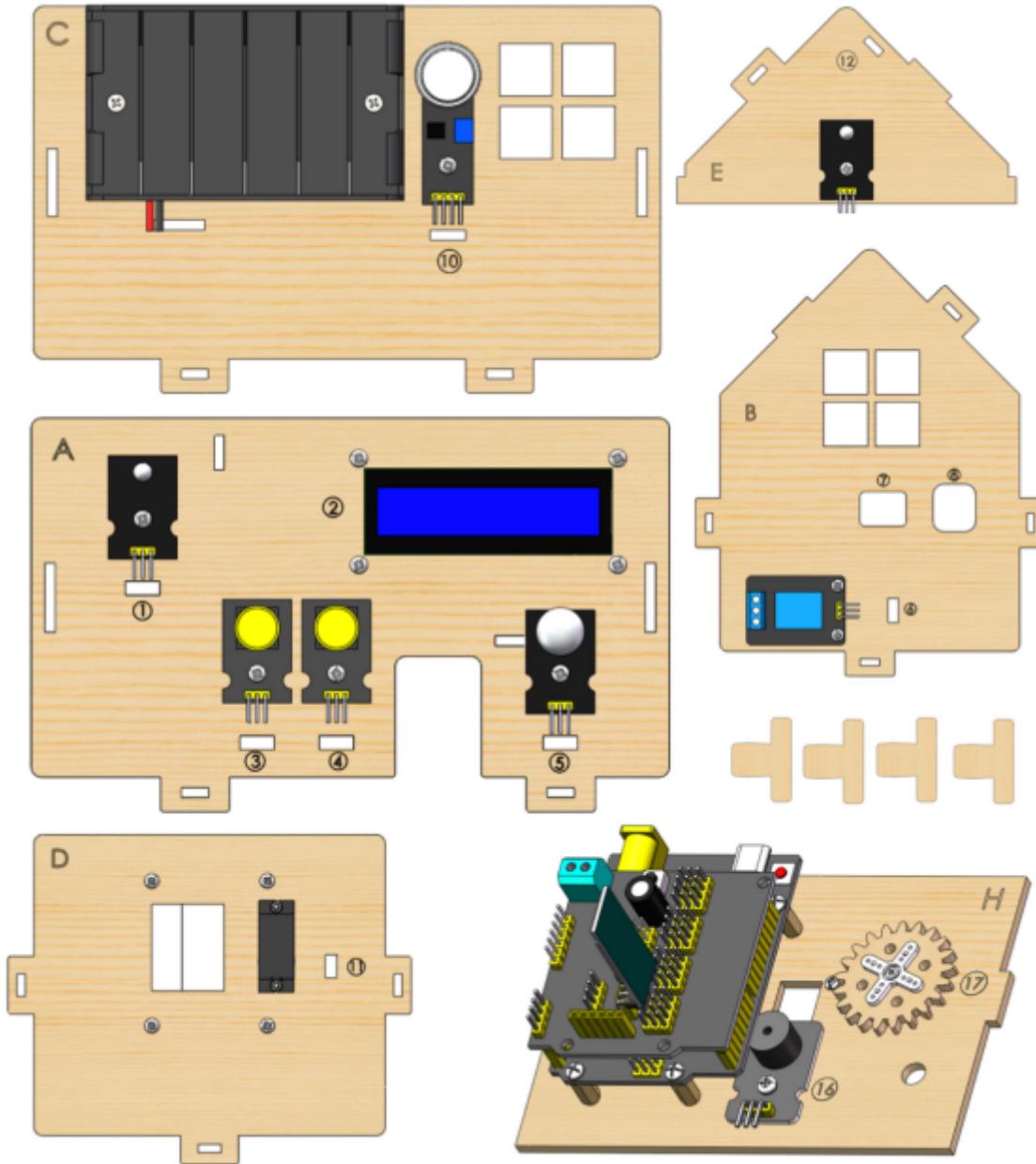


Prototype:

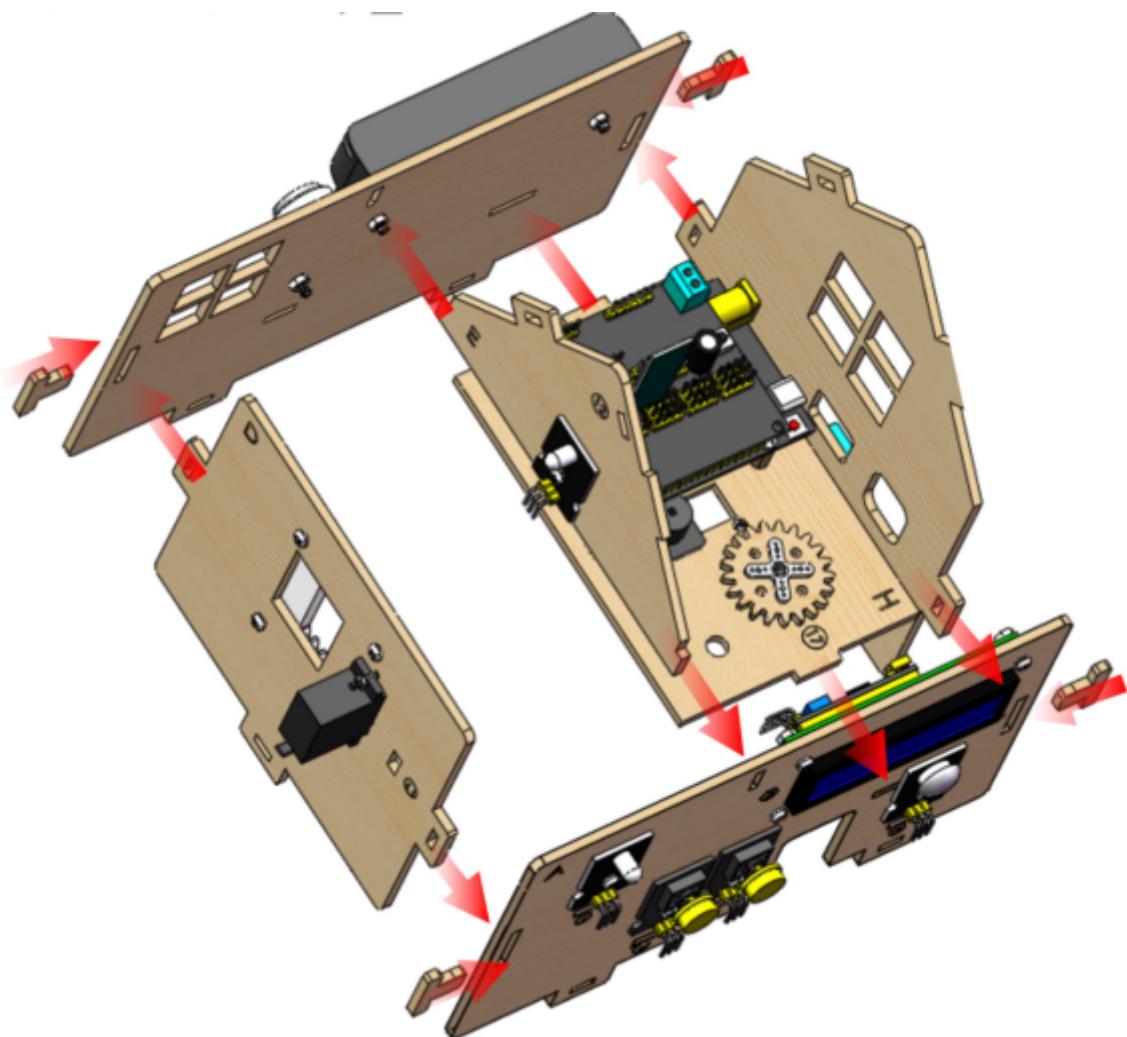


Step 15

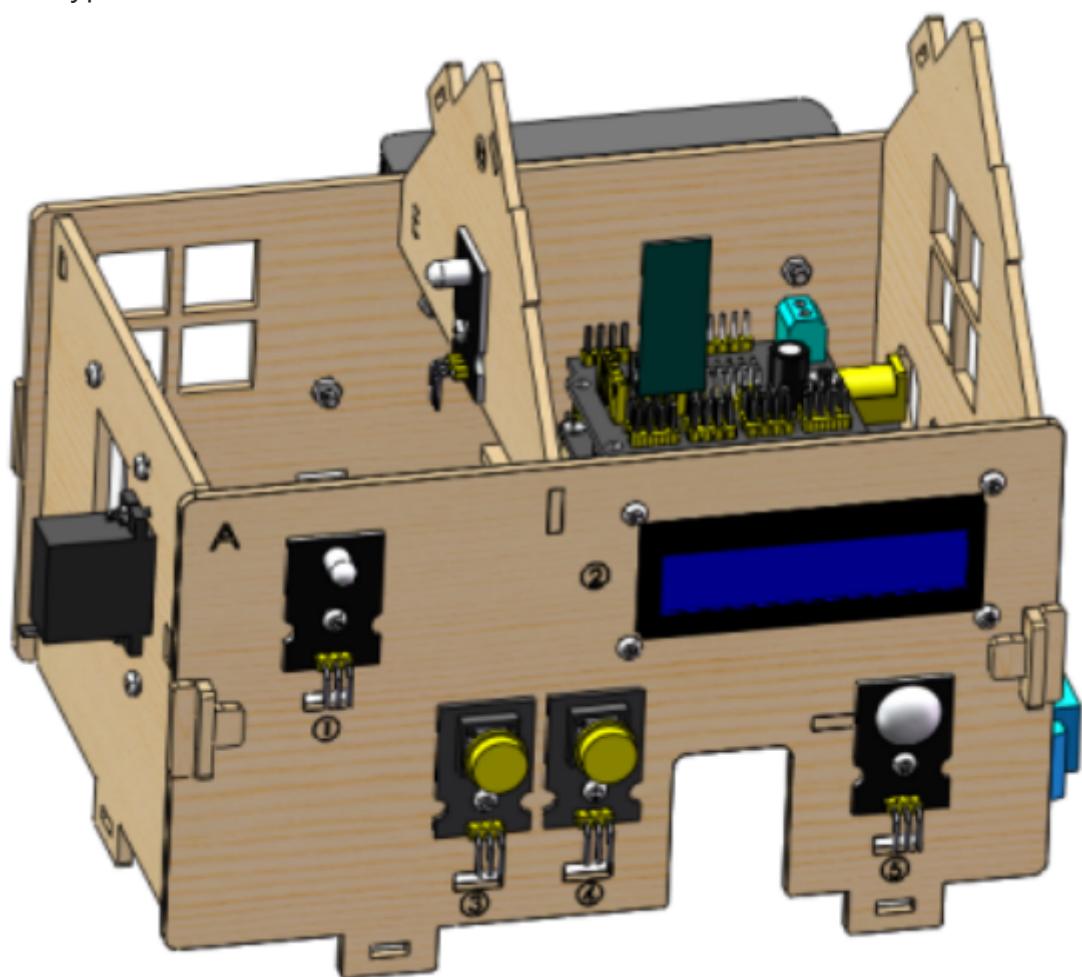
Needed Components:



Installation Diagram:



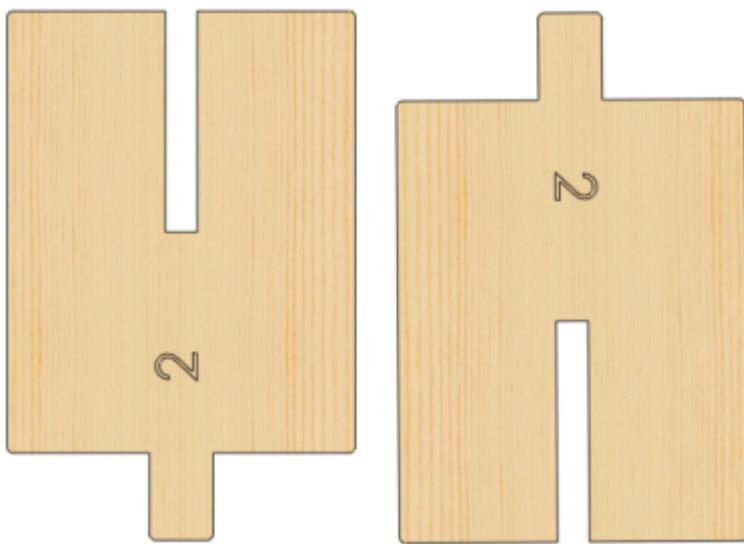
Prototype:



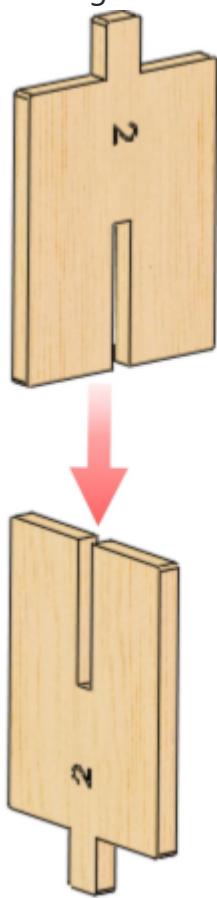
## Step 16

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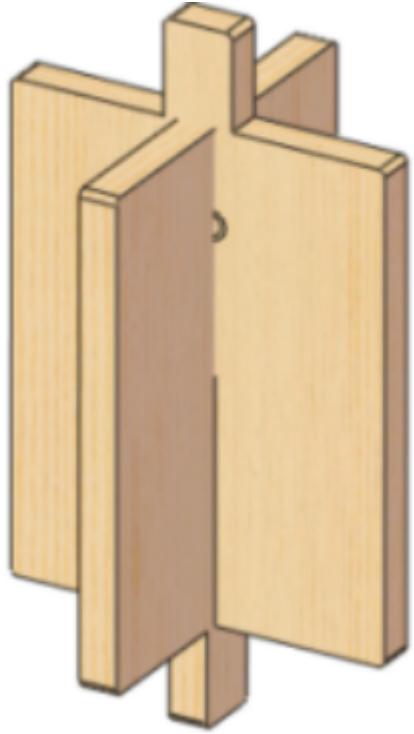
Needed Components:



Installation Diagram:



Prototype:

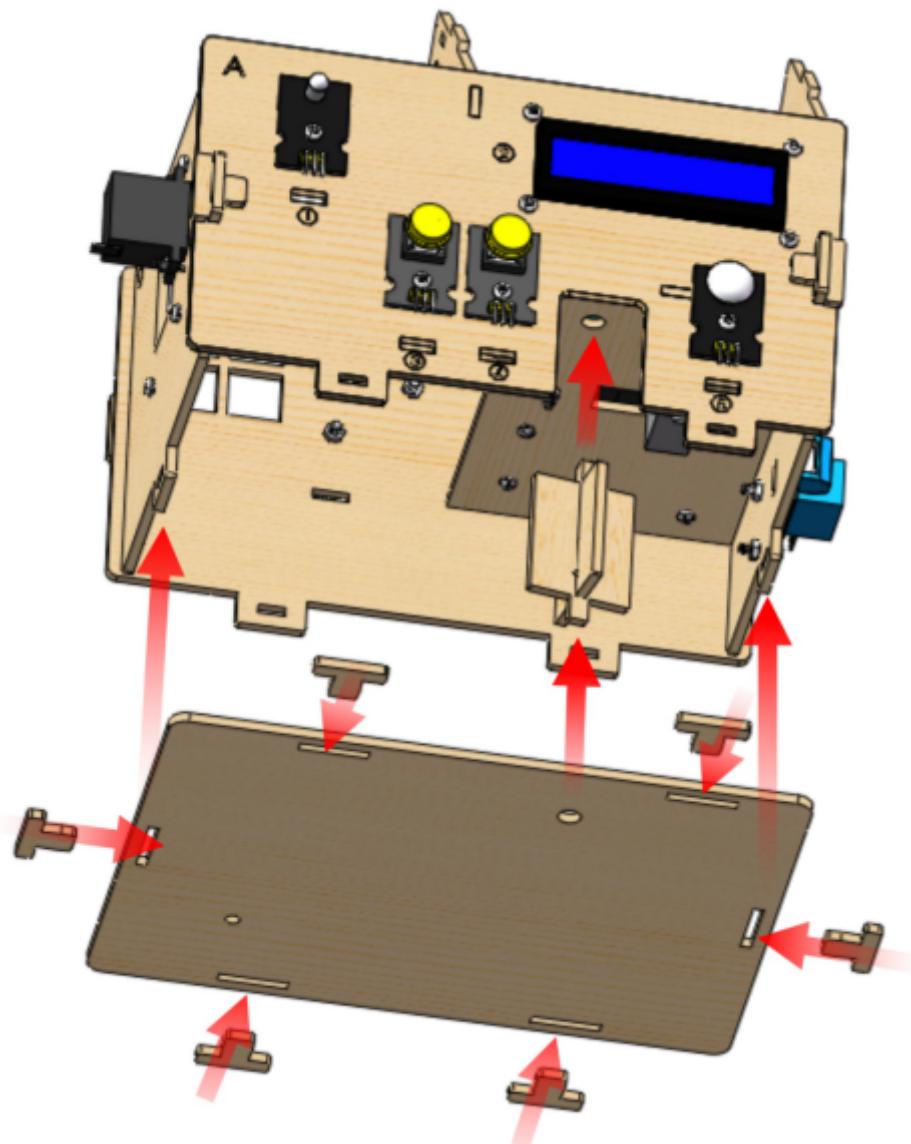


## Step 17

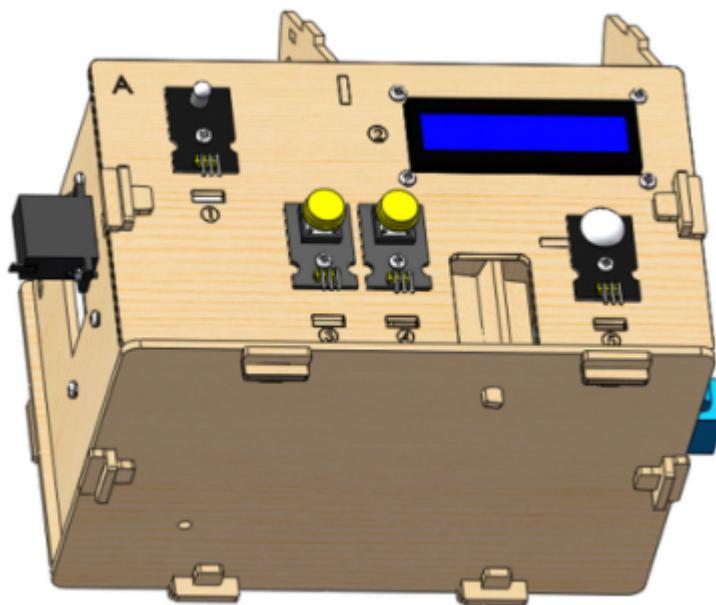
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Needed Components:

Installation Diagram:



Prototype:

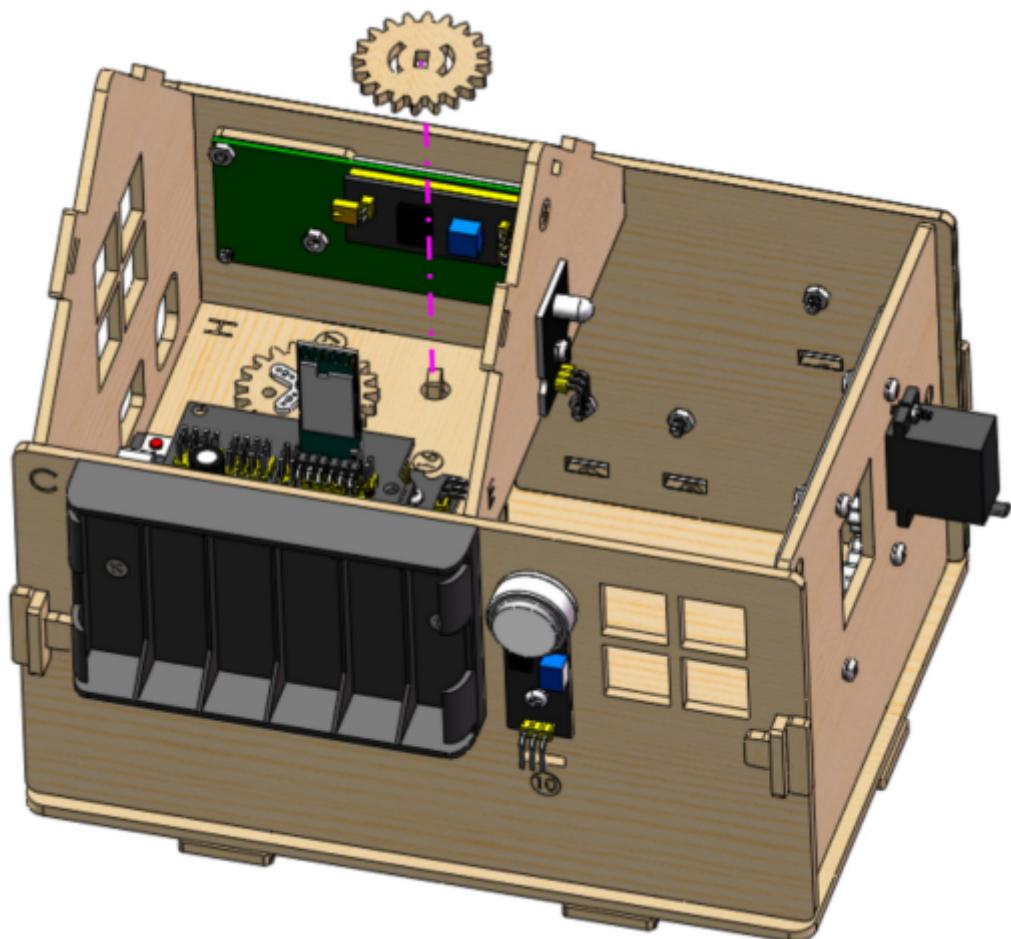


Step 18

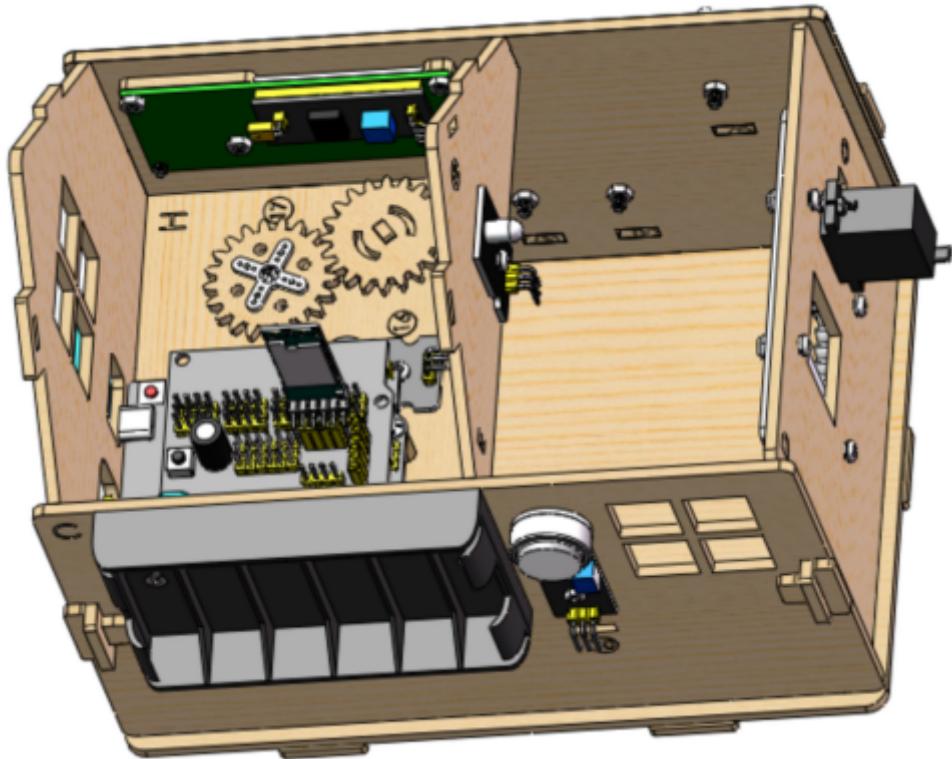
Needed Components:



Installation Diagram:



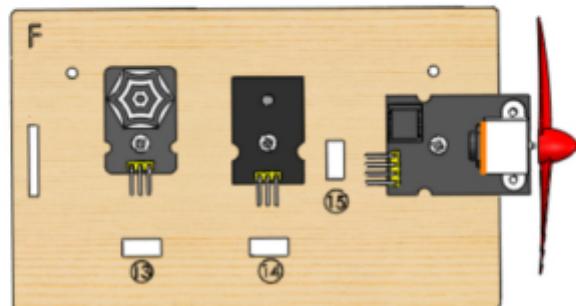
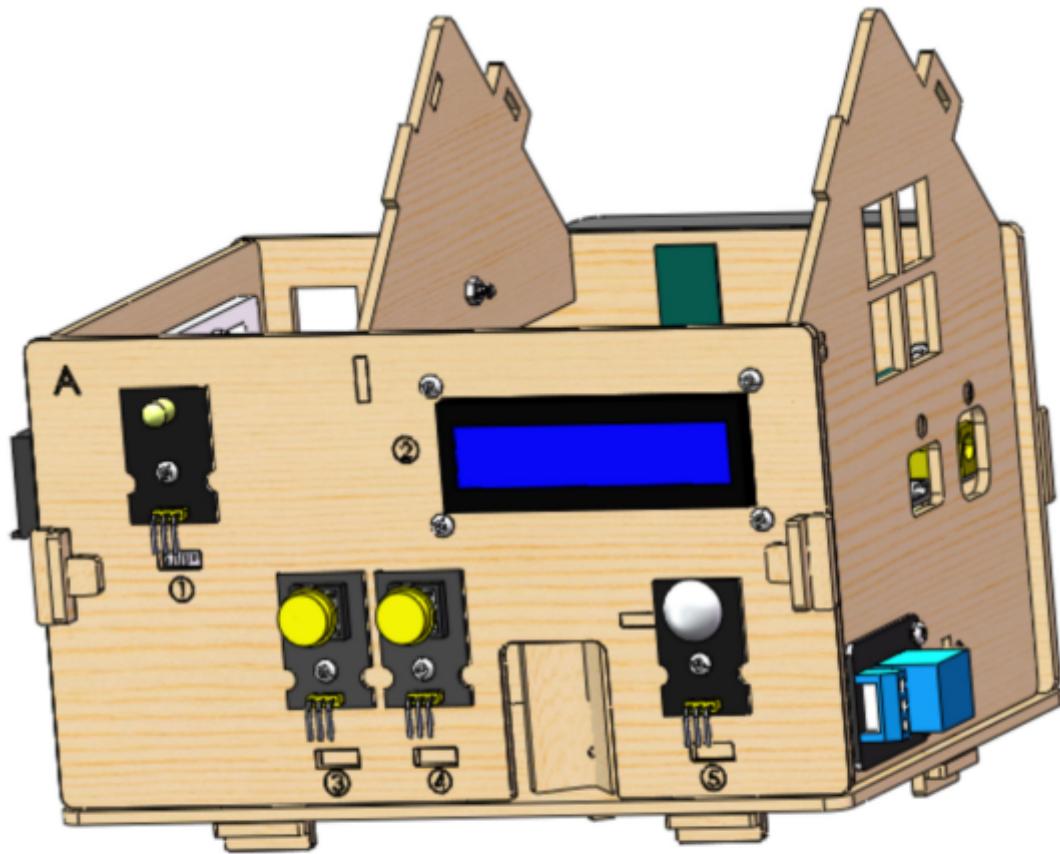
Prototype:



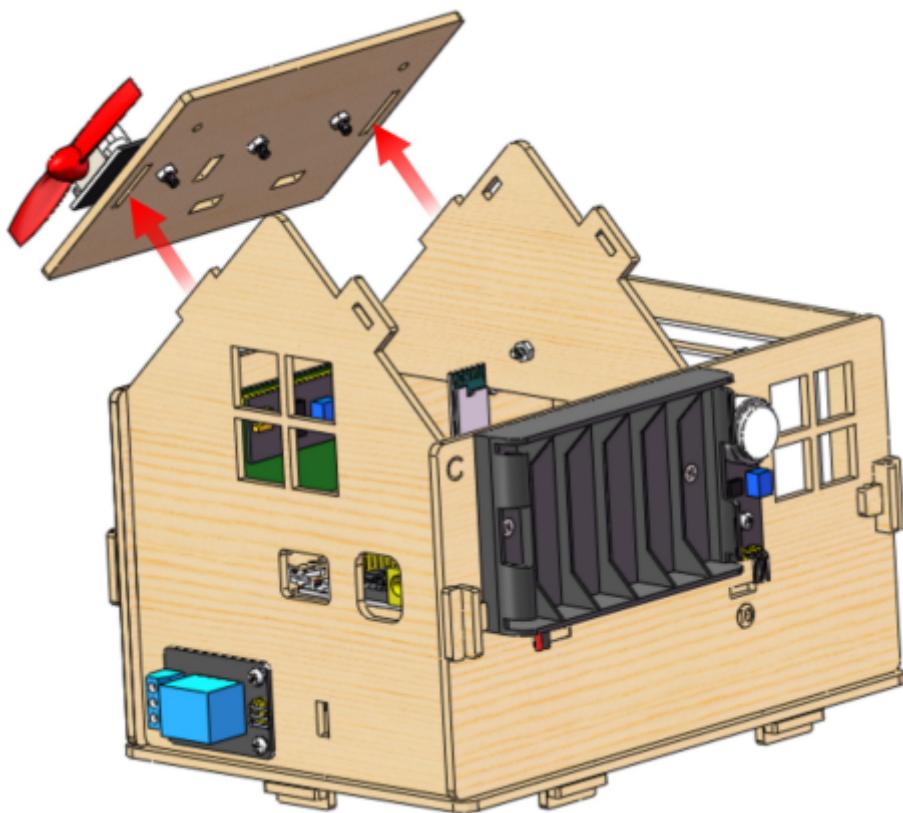
## Step 19

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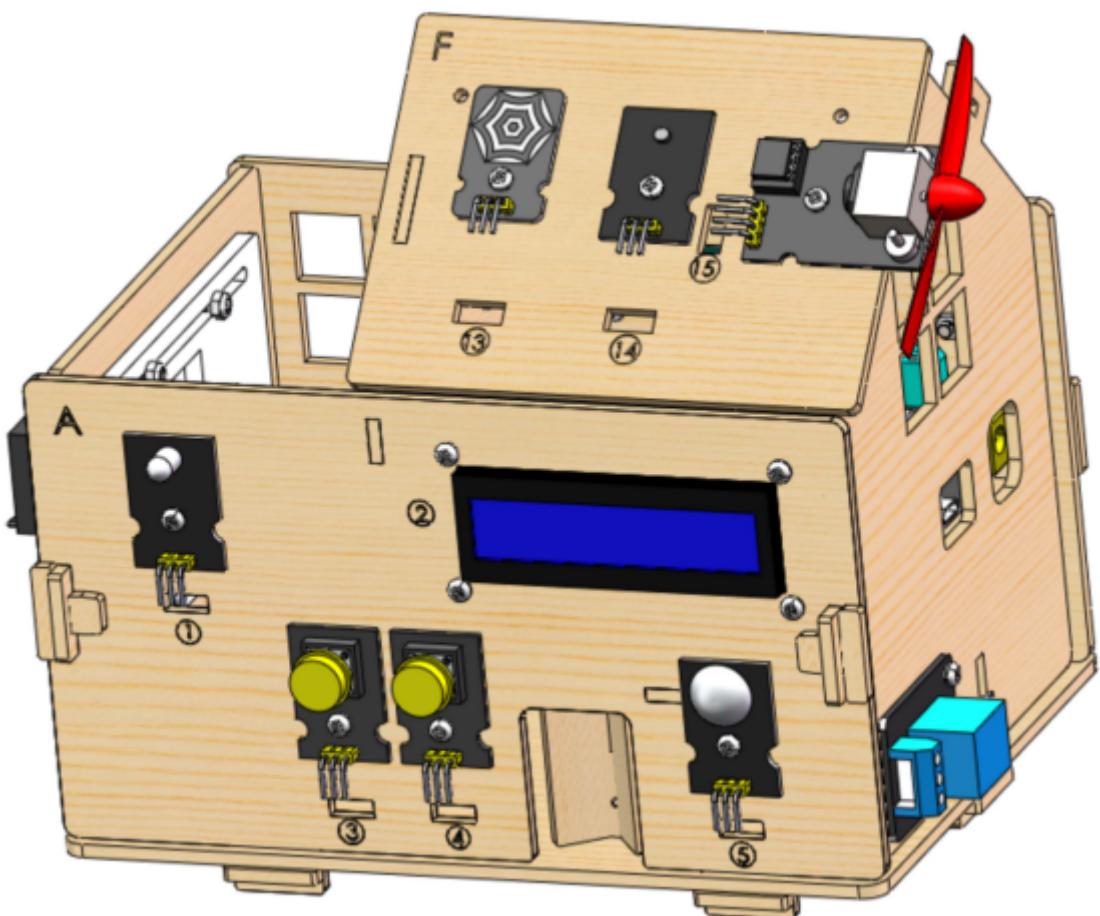
Needed Components:



Installation Diagram:

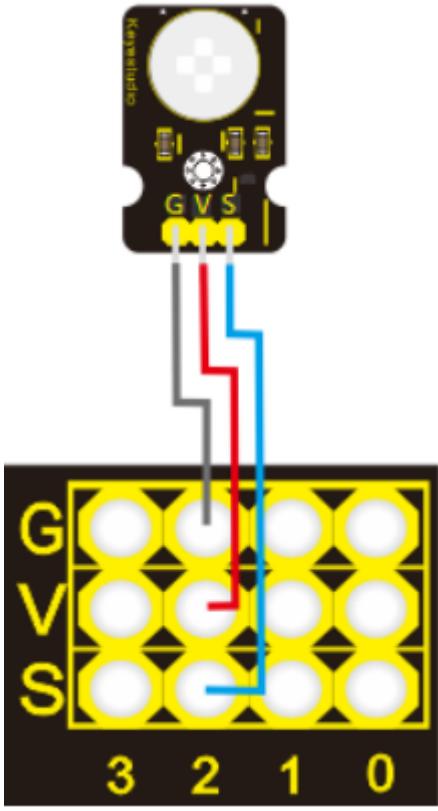


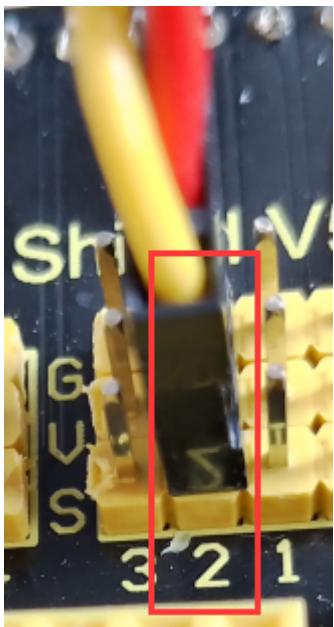
Prototype:



## Wiring

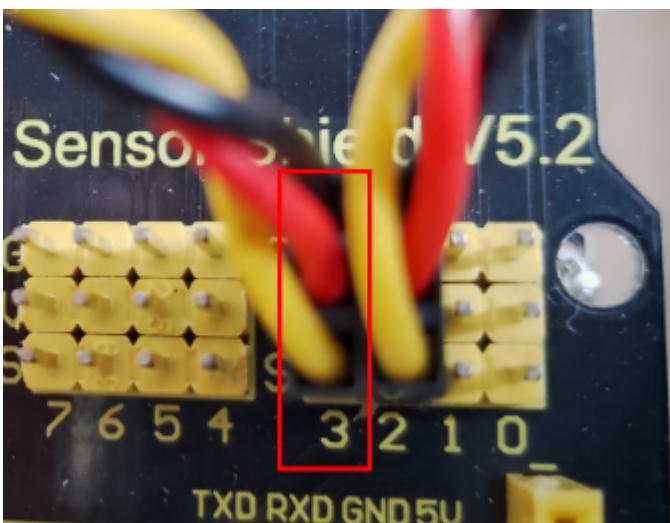
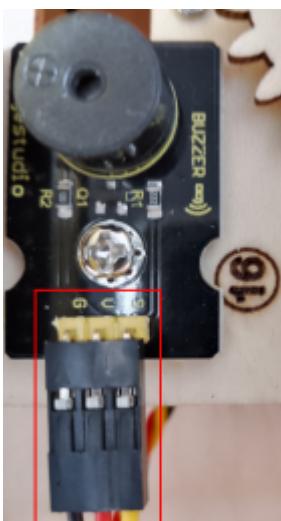
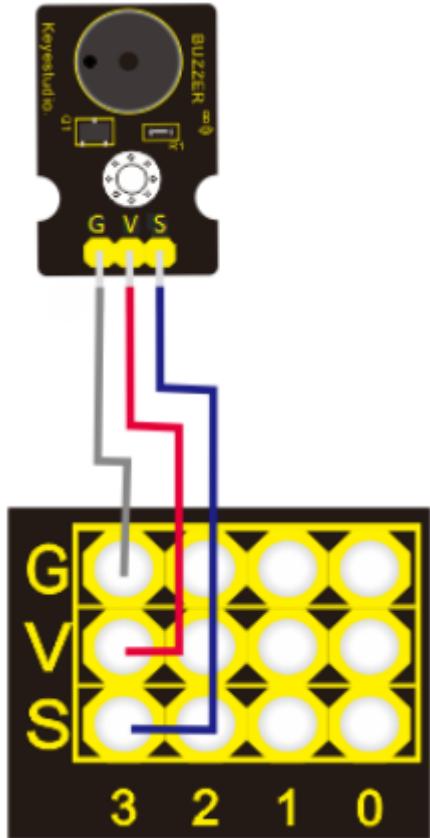
### PIR Motion Sensor





PIR motion sensor	Expansion board	Position on wood board
G/V/S	G/V/2	⑤

**Passive Buzzer**



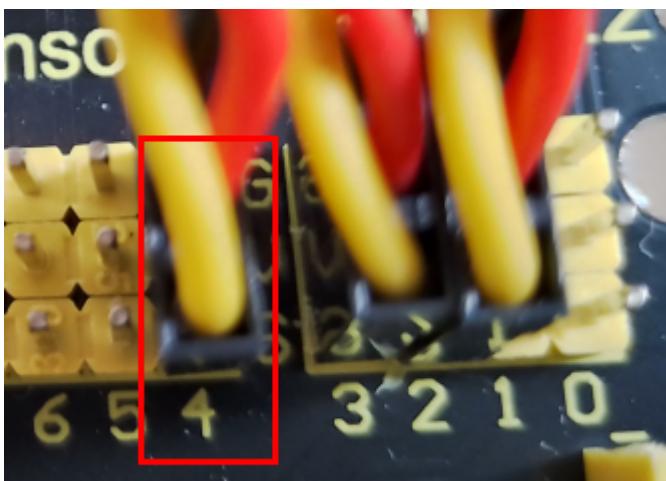
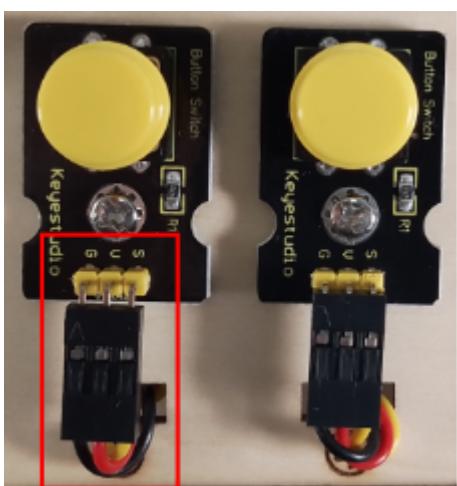
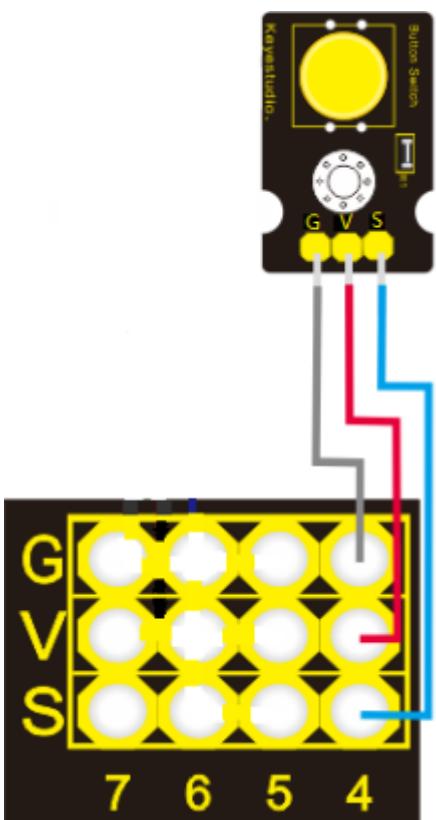
Passive buzzer

Expansion board

Position on wood board

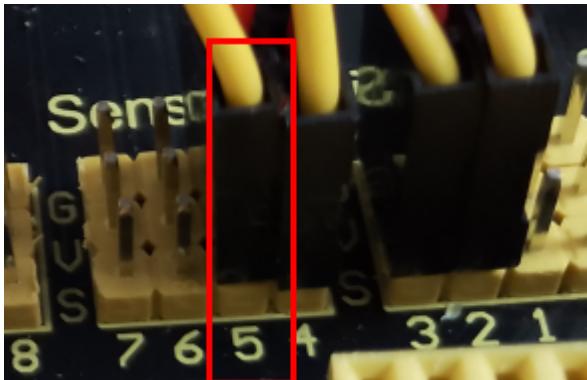
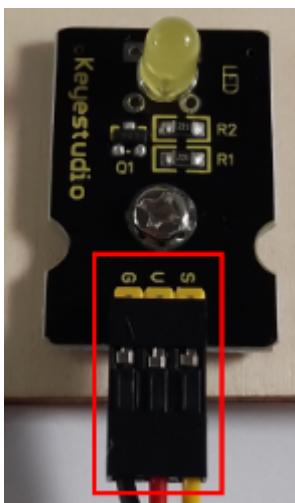
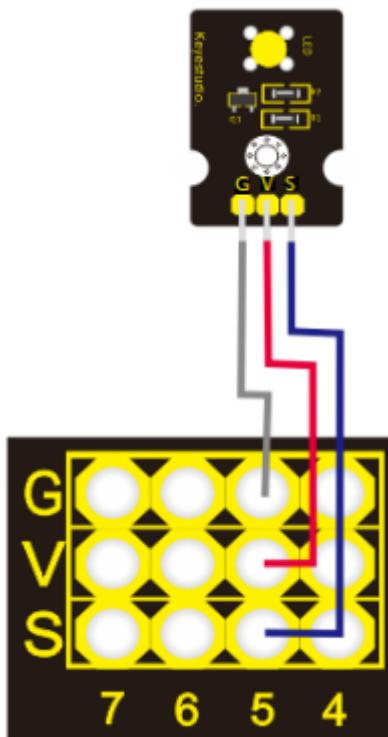
Passive buzzer	Expansion board	Position on wood board
G/V/S	G/V/3	⑯

Button 1



Button 1	Expansion board	Position on wood board
G/V/S	G/V/4	③

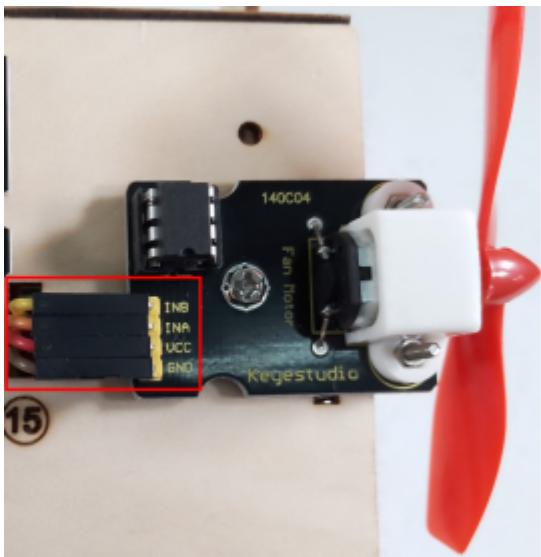
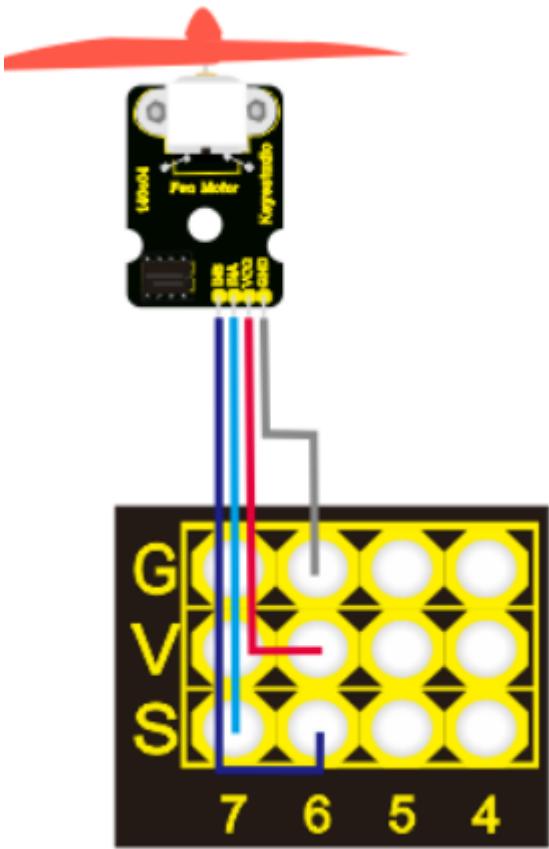
Yellow LED

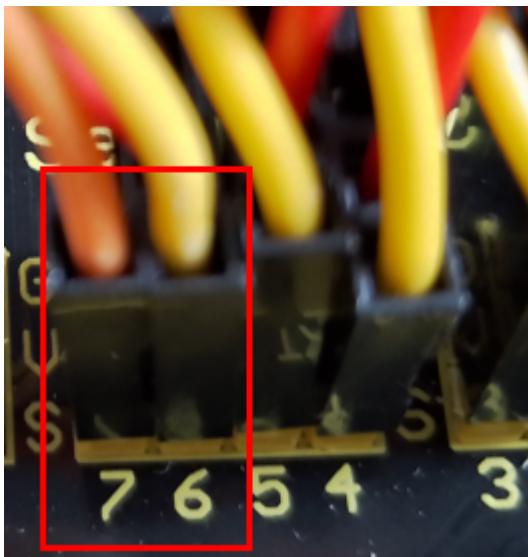


Yellow LED	Expansion board	Position on wood board

Yellow LED	Expansion board	Position on wood board
G/V/S	G/V/5	⑫

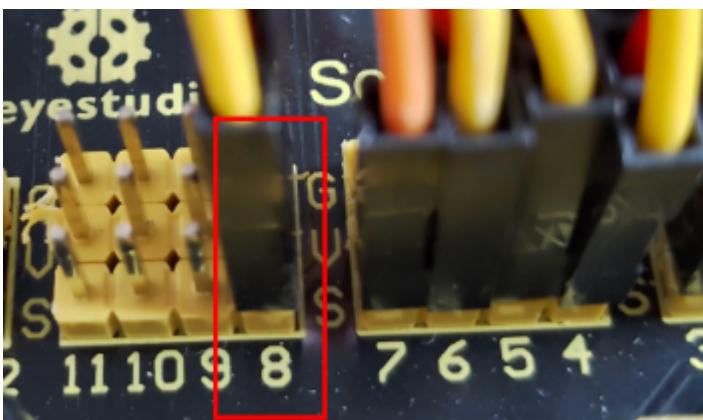
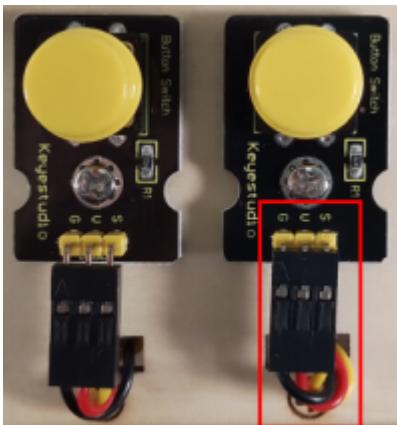
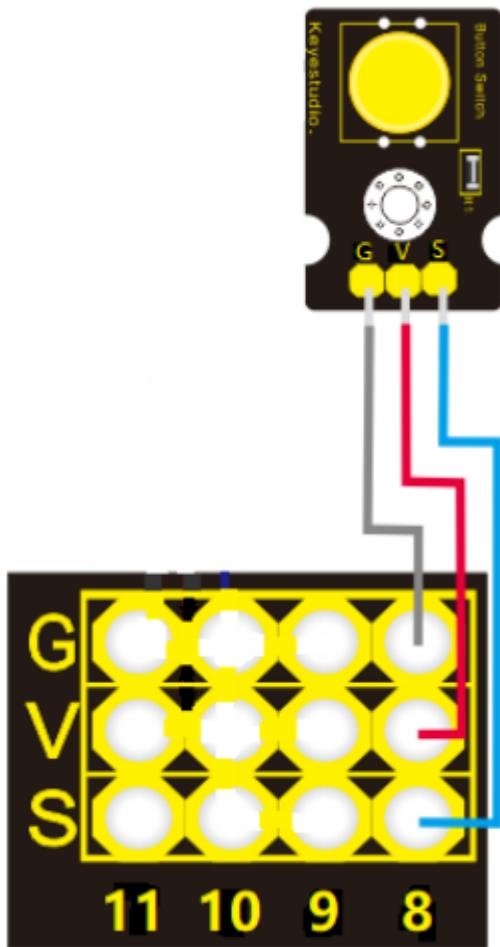
Fan





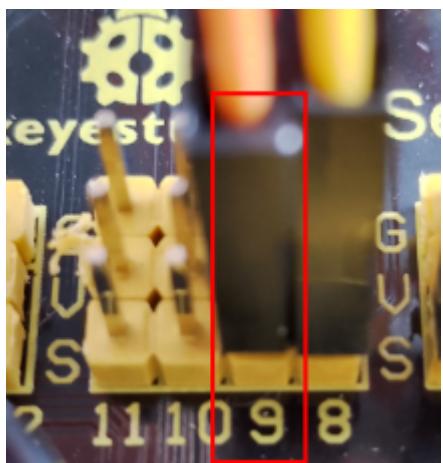
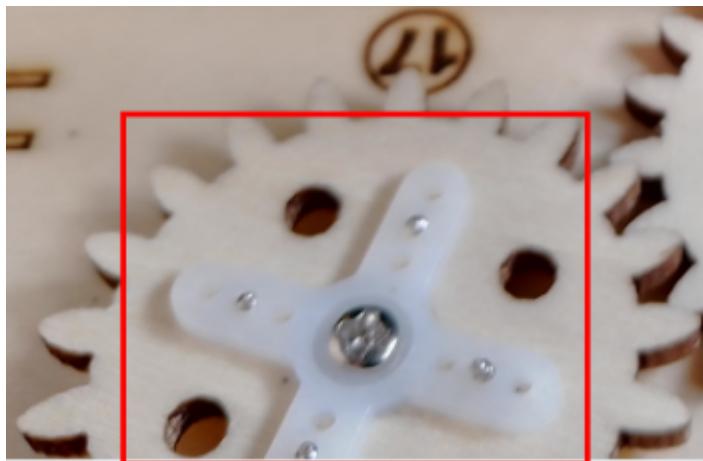
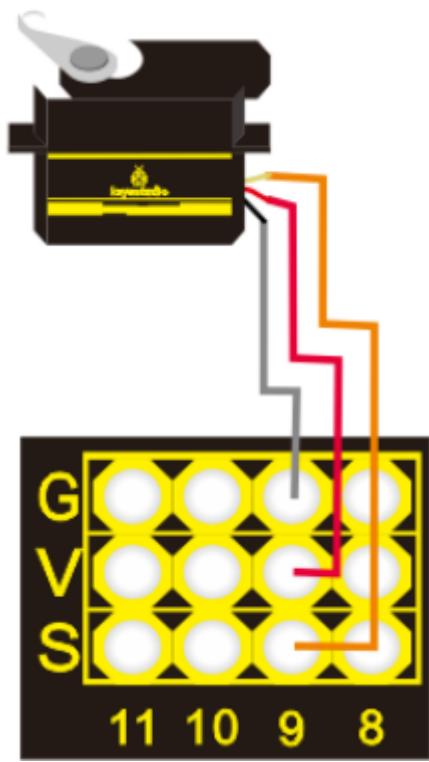
Fan	Expansion board	Position on wood board
GND/VCC/INA/INB	G/V/7/6	⑯

Button 2



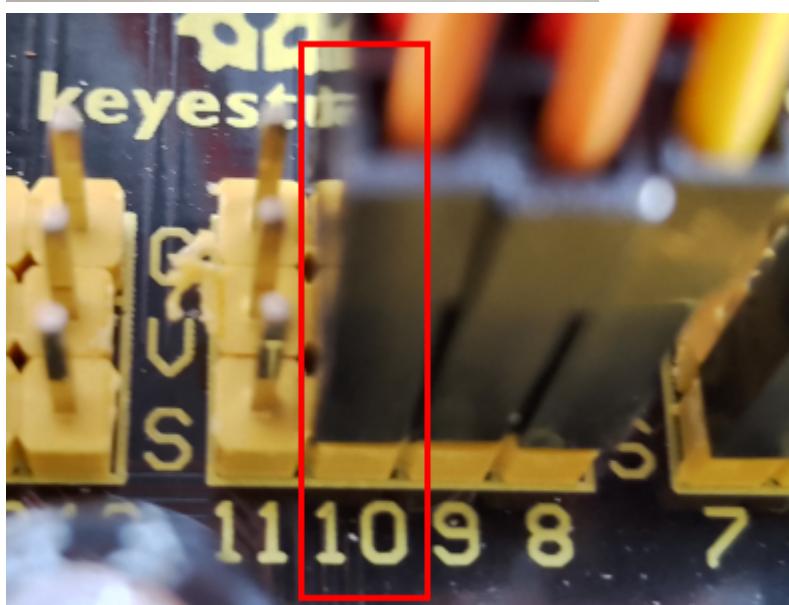
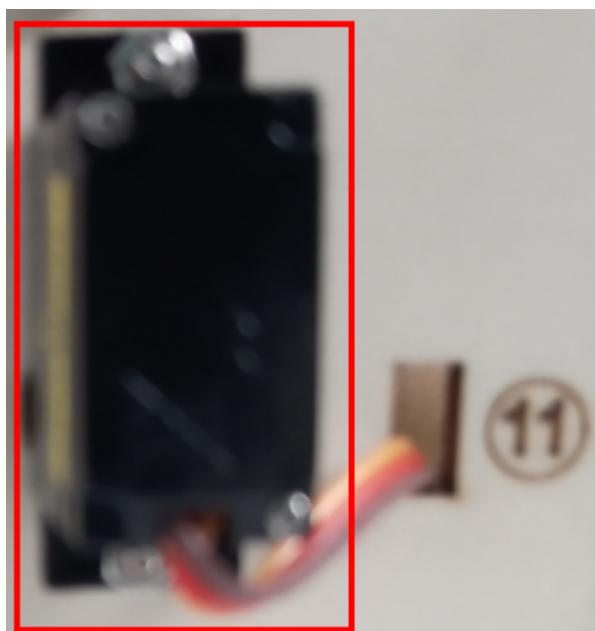
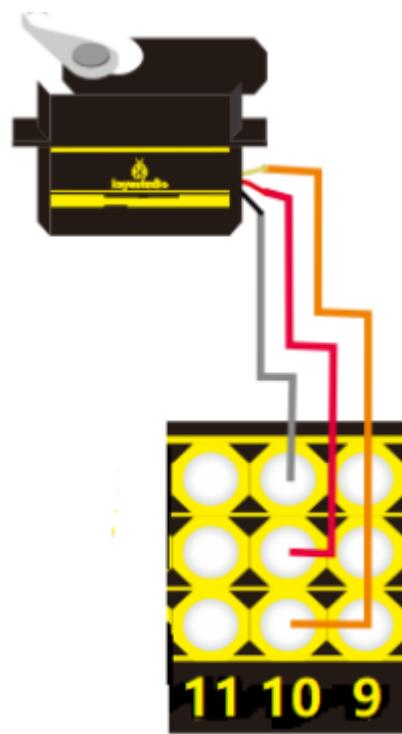
Button 2	Expansion board	Position on wood board
G/V/S	G/V/8	④

## Servo 1 for Door Controlling



Servo 1	Expansion board	Position on wood board
Brown line/Red line/Orange line	G/V/9	⑯

## Servo 2 for Window Controlling



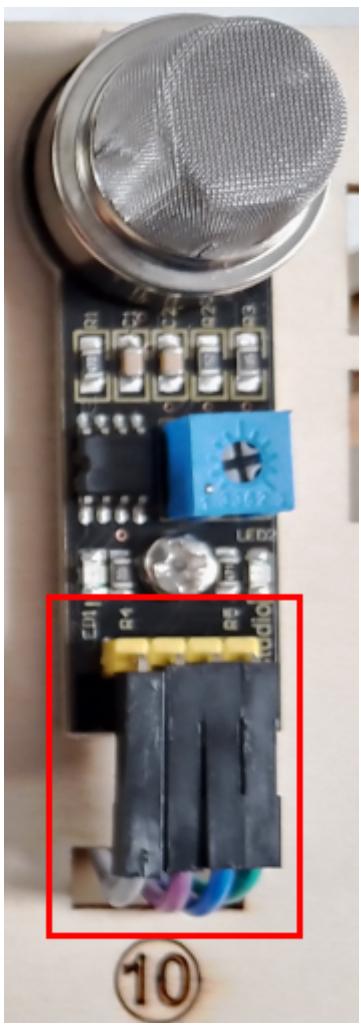
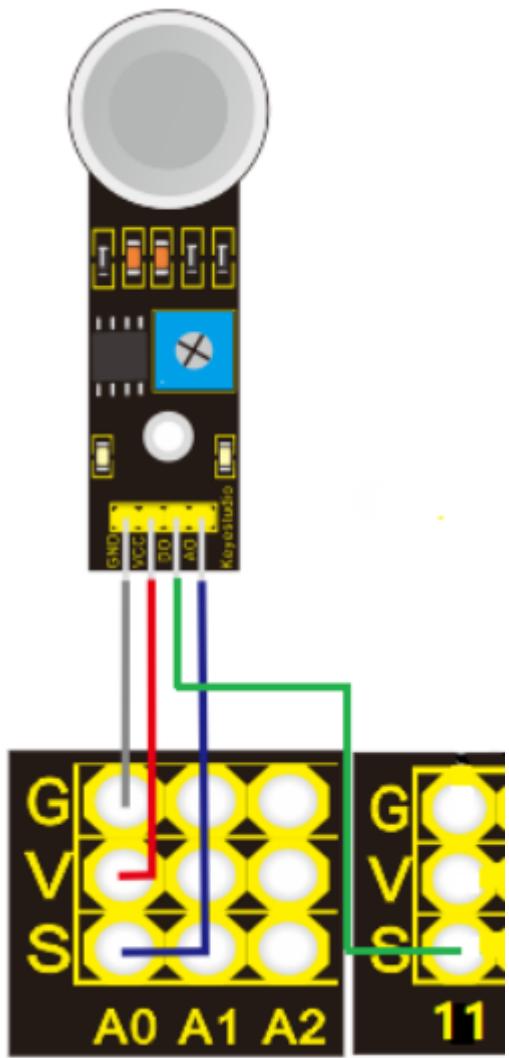
Servo 2

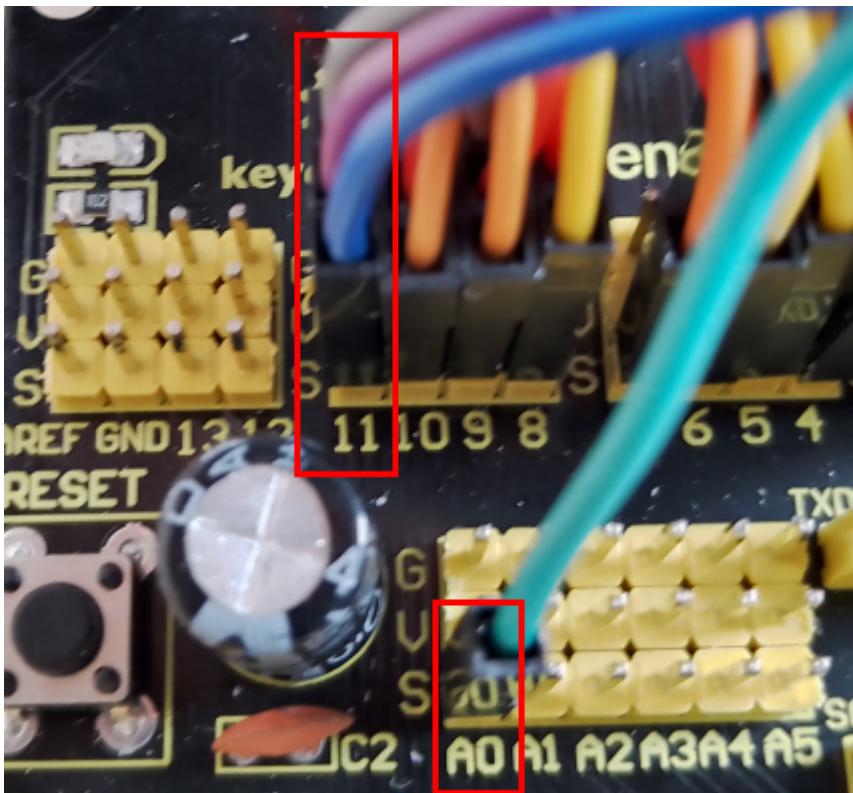
Expansion board

Position on wood board

Servo 2	Expansion board	Position on wood board
Brown line/Red line/Orange line	G/V/10	⑪

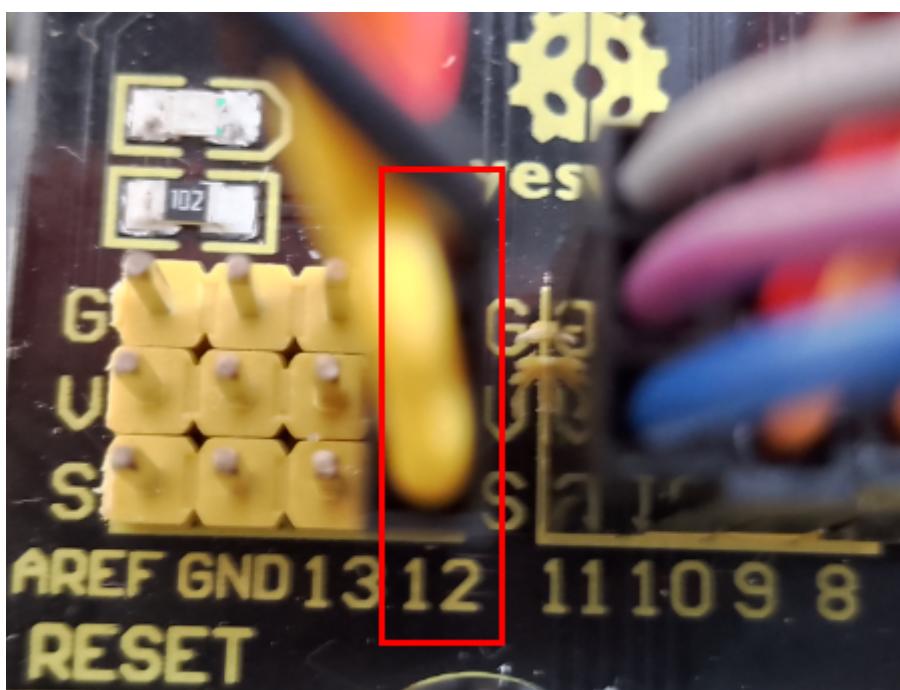
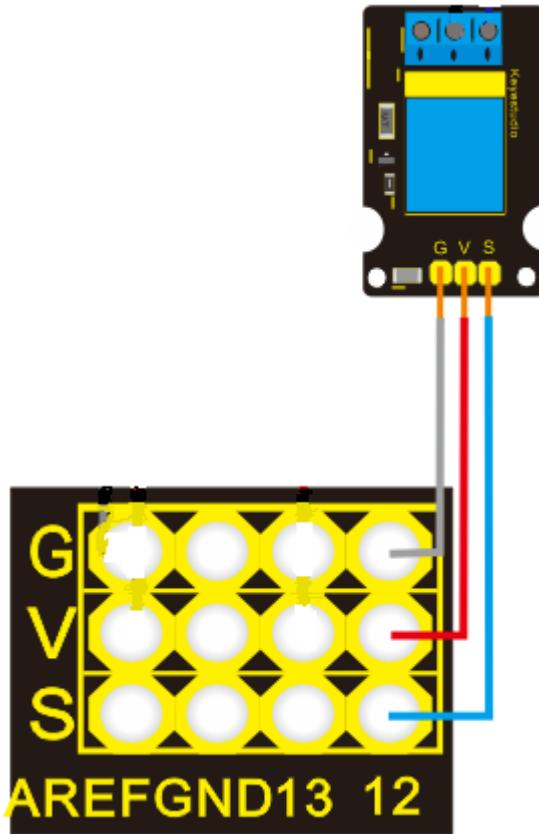
## MQ-2 Gas Sensor





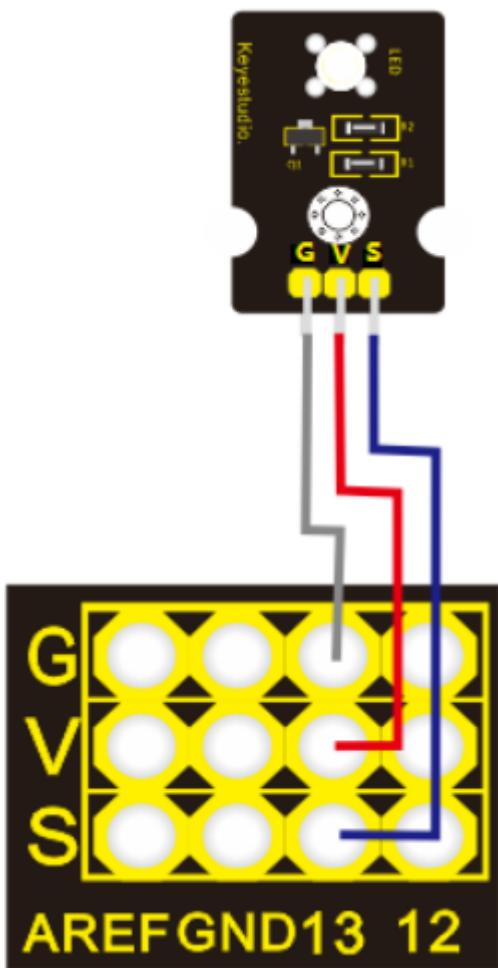
MQ-2 gas sensor	Expansion board	Position on wood board
GND/VCC/D0/A0	G/V/11/A0	⑩

Relay Module



Relay module	Expansion board	Position on wood board
G/V/S	G/V/12	⑥

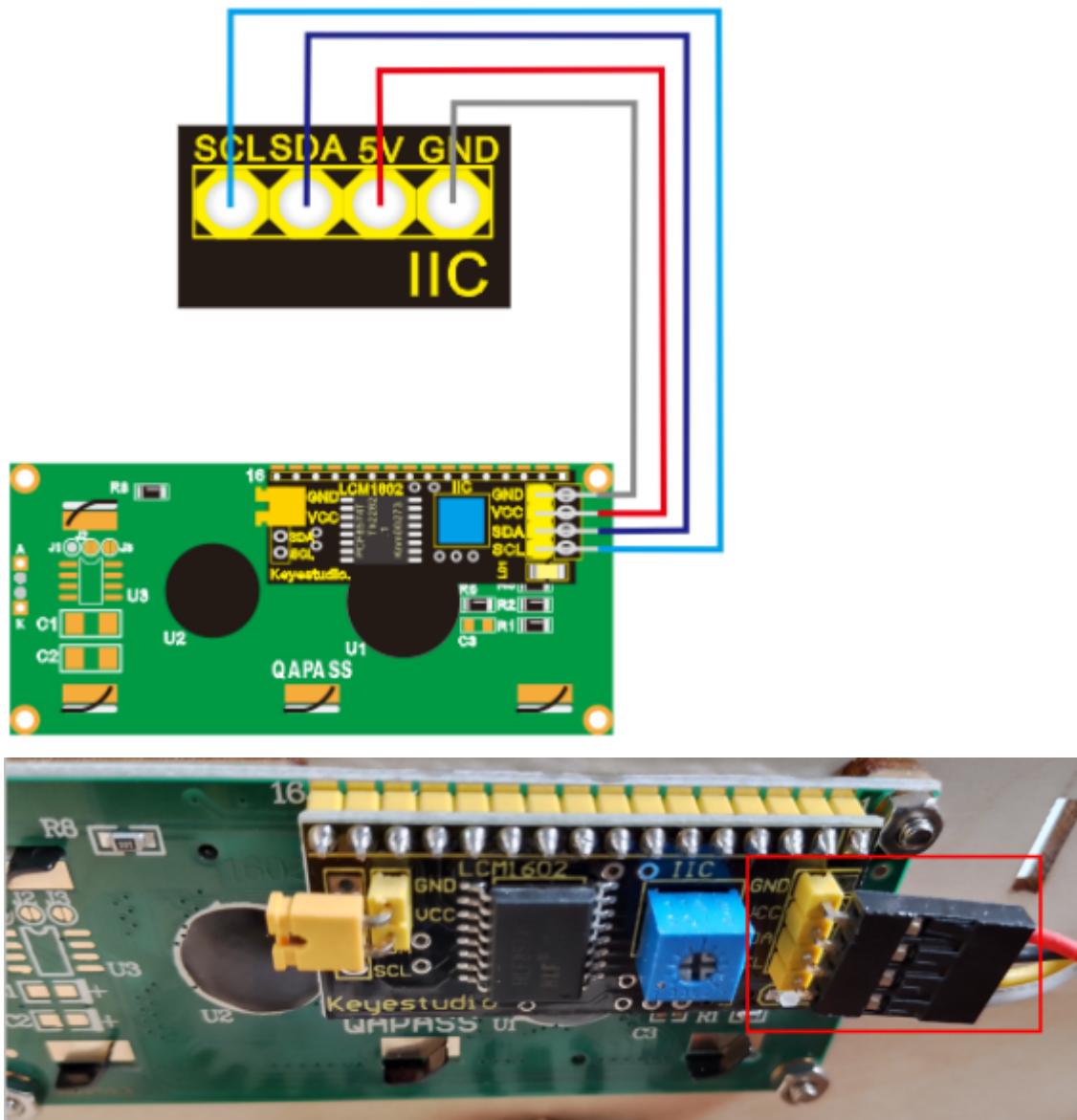
White LED

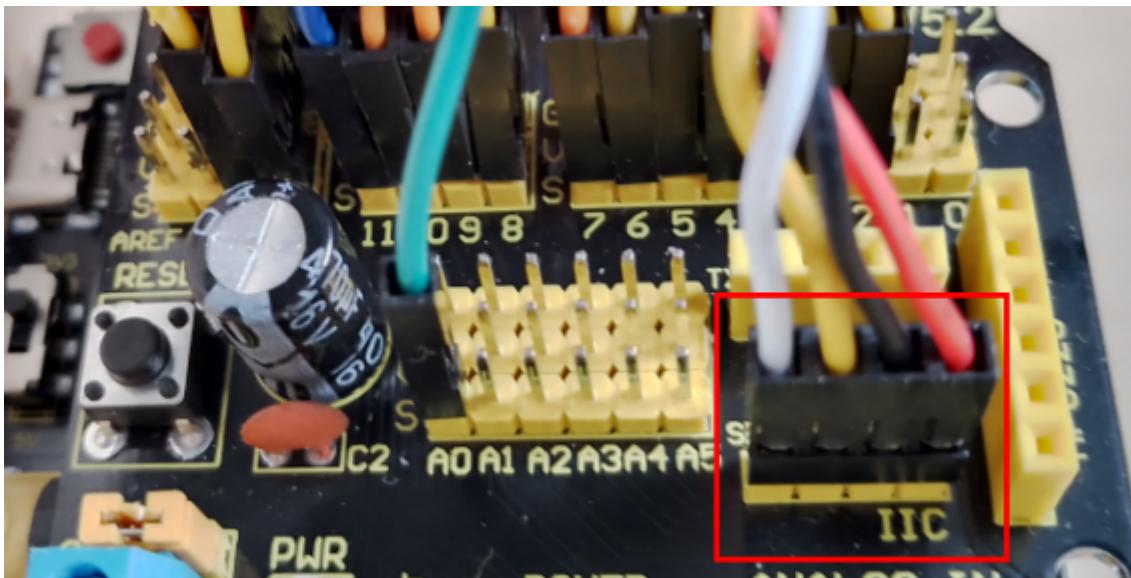




White LED	Expansion board	Position on wood board
G/V/S	G/V/13	①

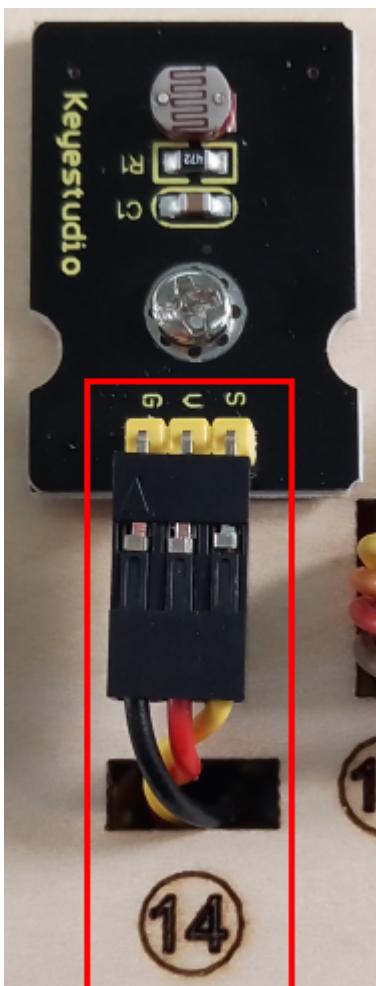
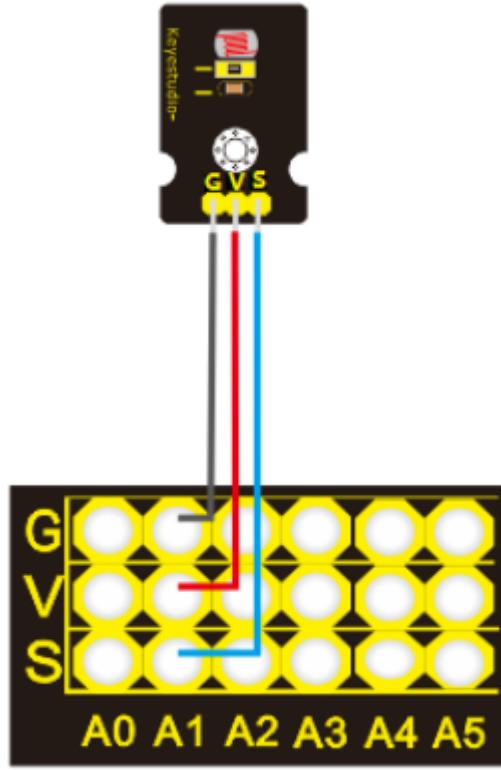
### LCD1602 Display

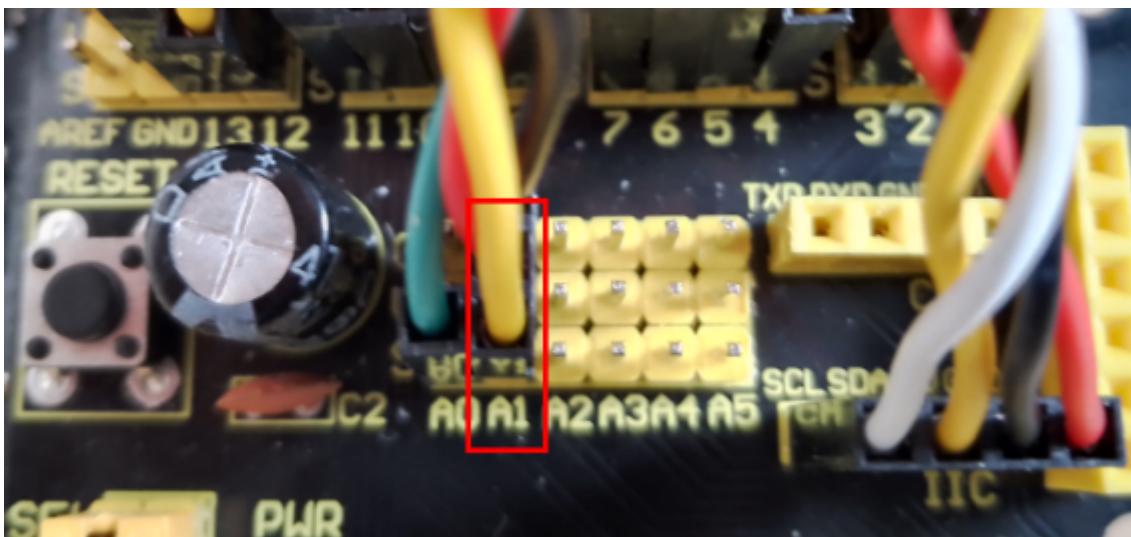




LCD1602 display	Expansion board	Position on wood board
GND/VCC/SDA/SCL	GND/5V/SDA/SCL	(2)

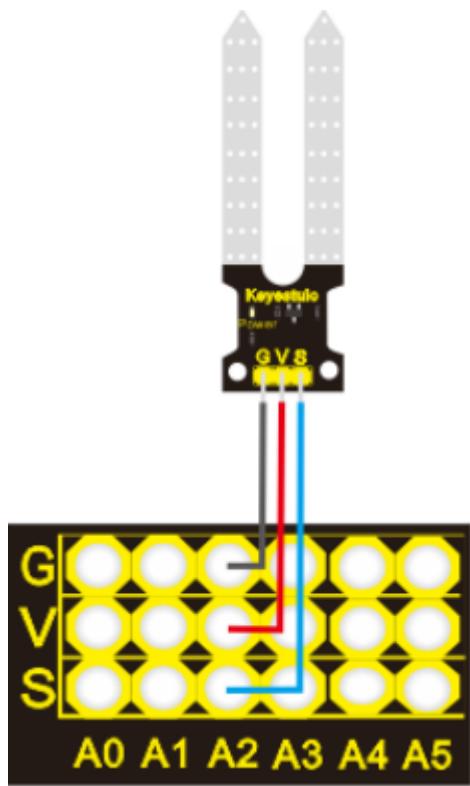
Photocell Sensor

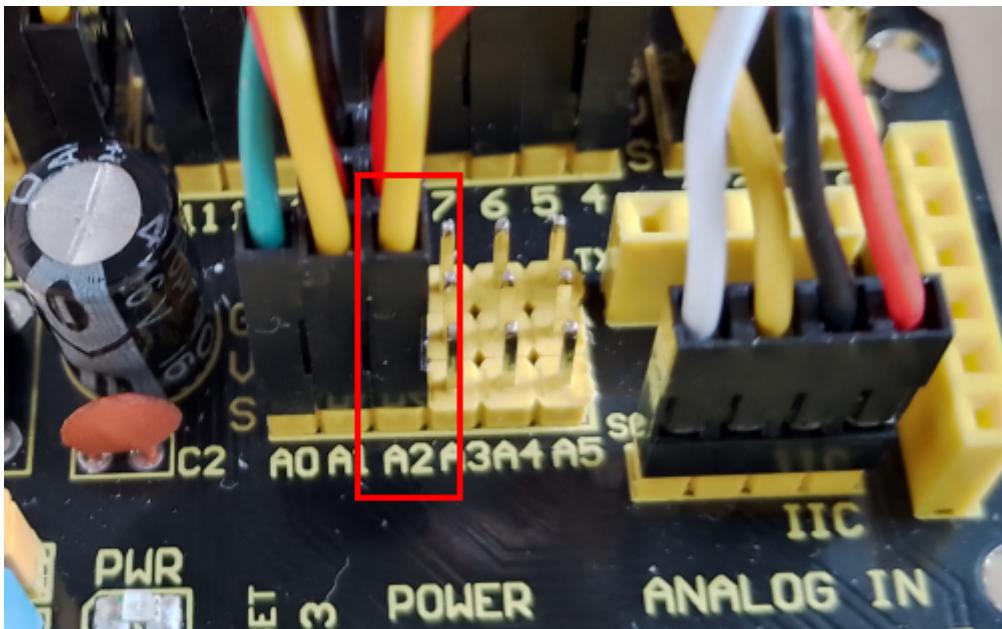




photocell sensor	Expansion board	Position on wood board
G/V/S	G/V/A1	⑯

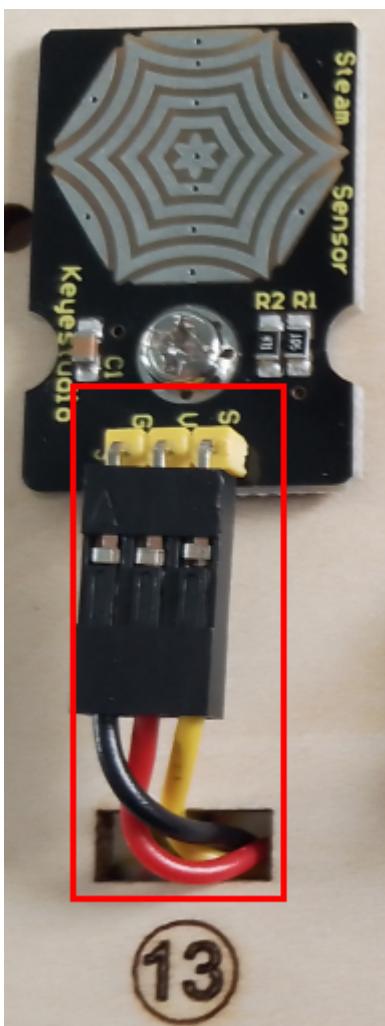
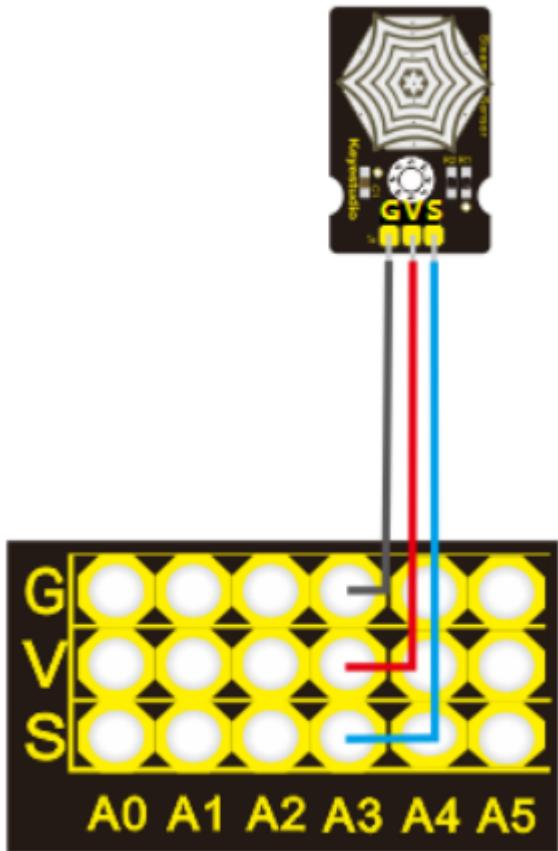
Soil Humidity Sensor

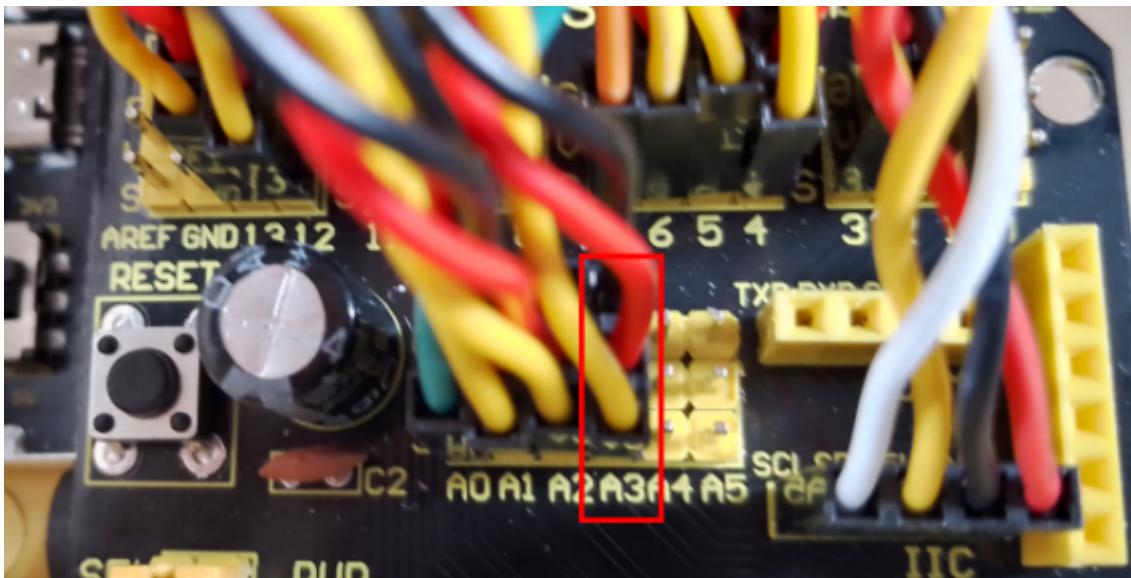




soil humidity sensor	Expansion board	Position on wood board
G/V/S	G/V/A2	

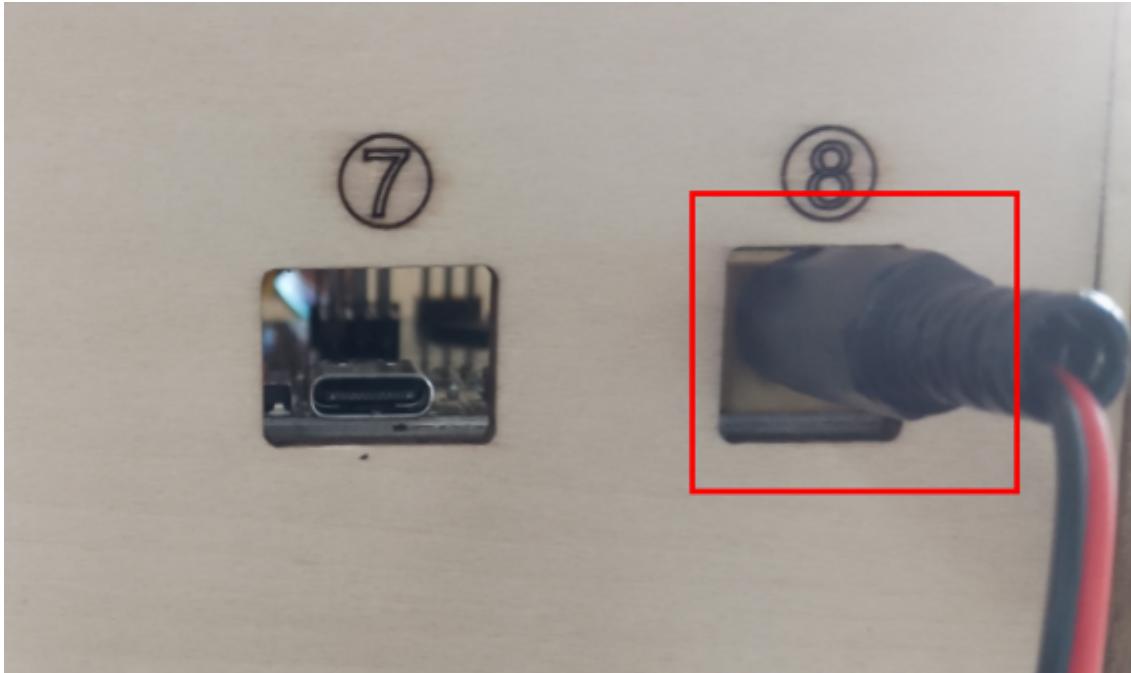
Steam Sensor





steam sensor	Expansion board	Position on wood board
G/V/S	G/V/A3	⑬

Power Supply



## Last Step: Roof Installation

Needed Components

Installation Diagram

Prototype

