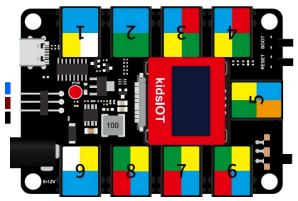
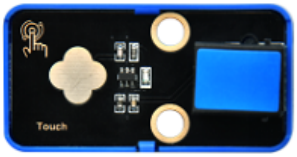
Proyectos

-. Proyecto 02: Mezclador

1. Descripción general

La mezcladora es un tipo de maquinaria de ingeniería de construcción que se utiliza principalmente para mezclar algunos materiales de construcción como cemento, arena y grava. En este proyecto buscaremos diseñar un mezclador.

2. Componentes:

		
Placa Base KidsIOT x1	Sensor táctil capacitivo digital x1	Servo 360º x1
		
Cable de conexión x1	Cable USB x1	Serie Lego x1

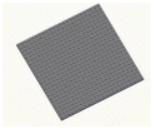
¿Qué es el sensor táctil capacitivo digital?

Su área de sensor de metal en forma de ciruela puede detectar el toque humano, cuando nuestras manos lo tocan, genera un nivel alto (1), cuando se suelta, genera un nivel bajo (0). Incluso si está separado por papel, aún puede sentir el tacto; cuanto más gruesa es la capa de aislamiento, menor es la sensibilidad. Es ampliamente utilizado en teléfonos inteligentes, tabletas y reproductores de MP3.

Parámetros:

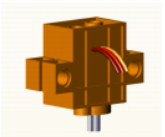
Voltaje de funcionamiento: 3.3V ~ 5V
Corriente de funcionamiento: (máx.) 3mA@5V
Potencia máxima: 0.015W
Tipo de señal: señal digital (0 o 1)

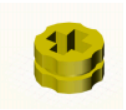
3. Instalación


x1

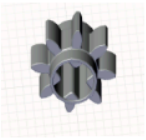

x3 (13 agujeros)


x4


x1 (360º servo)


x3


x1

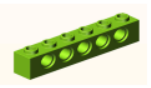

x2


x2 (11 agujeros)

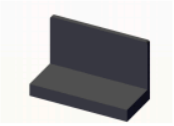

x1

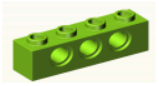

x2 (6,4cm)

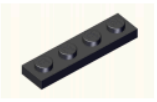

x1 (4,8cm)


x2 (5 agujeros)

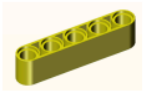

x2

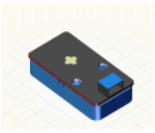

x6


x4 (3 agujeros)


x8

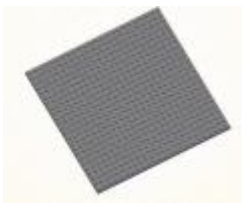
Nota: El color de los bloques de construcción está sujeto al objeto real.

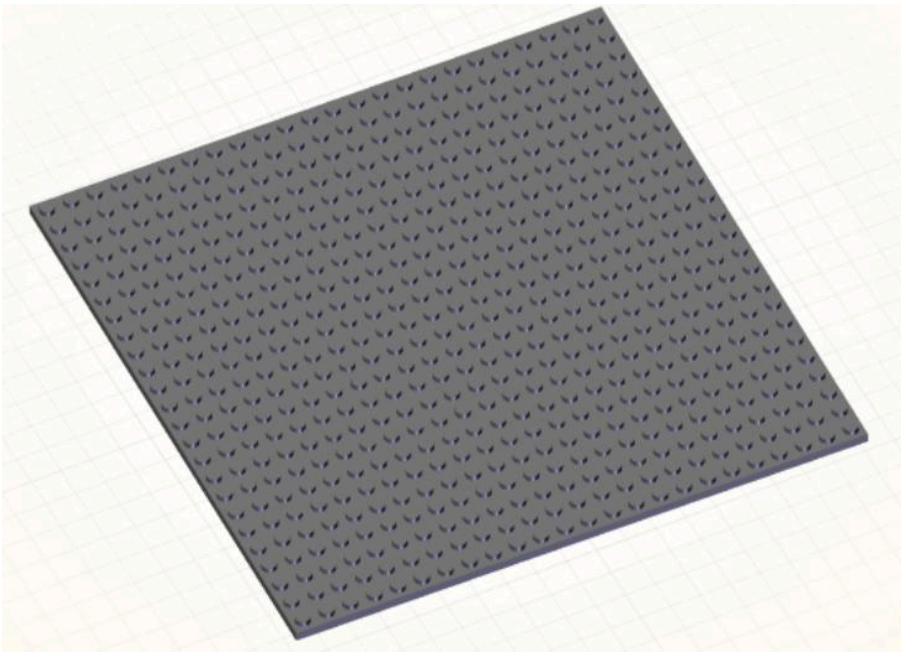

x1 (5 agujeros)


x1

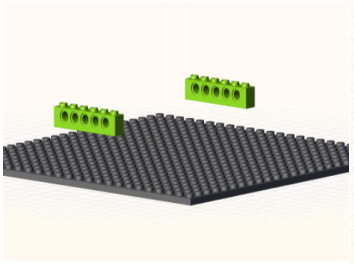

x5

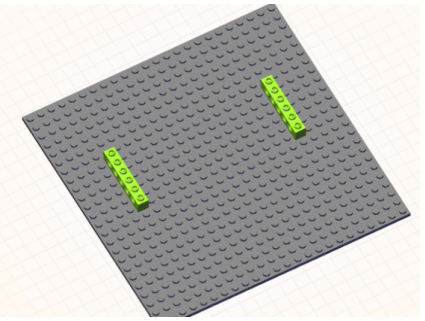

x3


x1

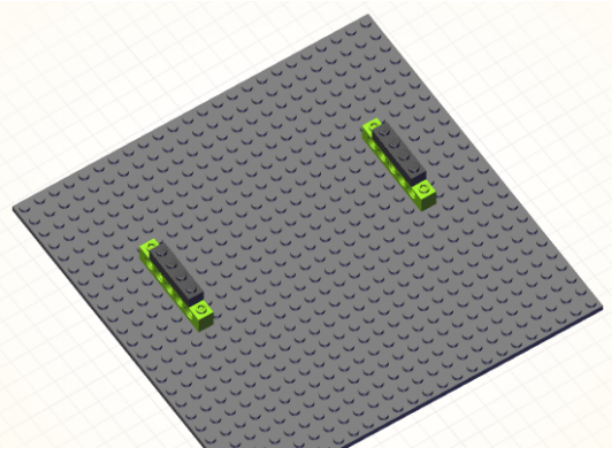


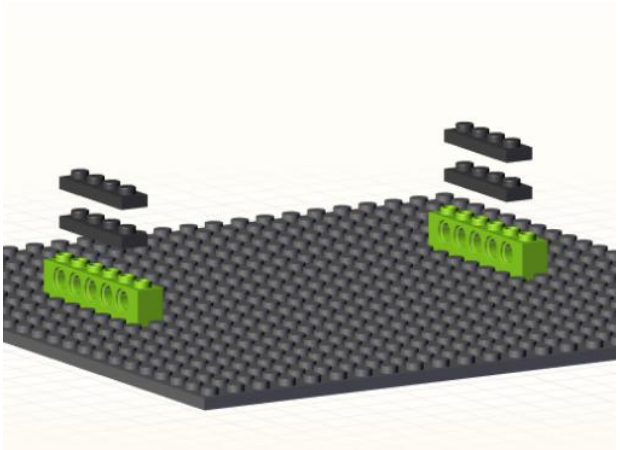
x2 (5 agujeros)





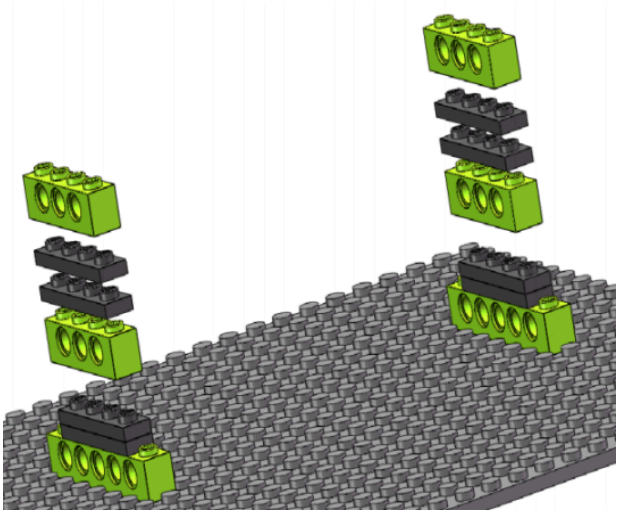
x4

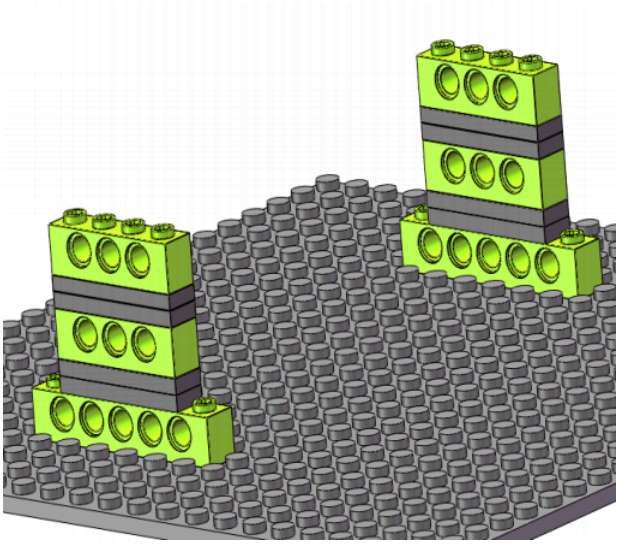




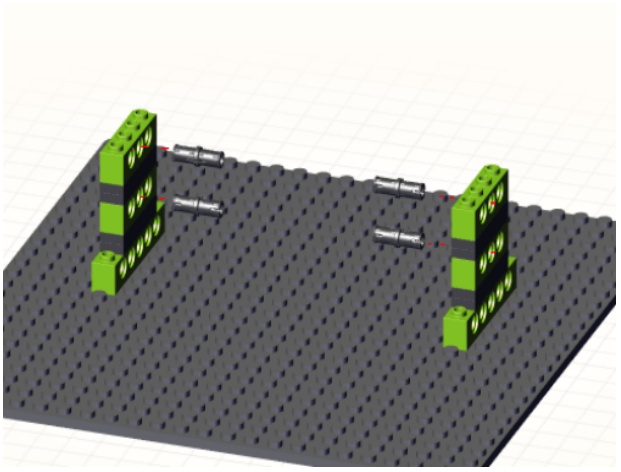
x4

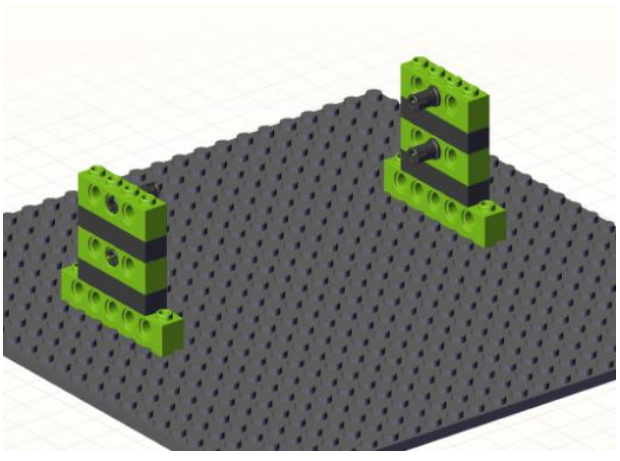
x4 (3 agujeros)





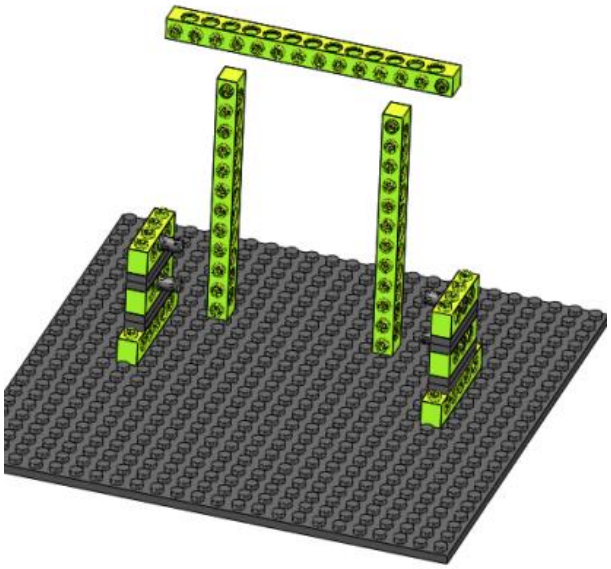
x4

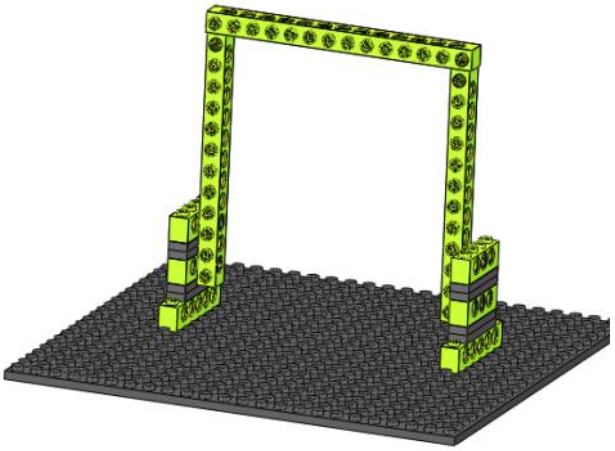




x2 (11 agujeros)

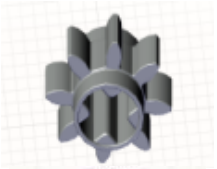
x1 (13 agujeros)





x2 (6,4 cm)

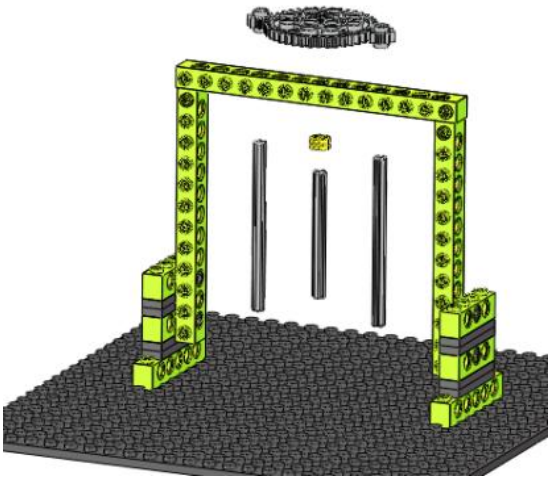
x1 (4,8 cm)

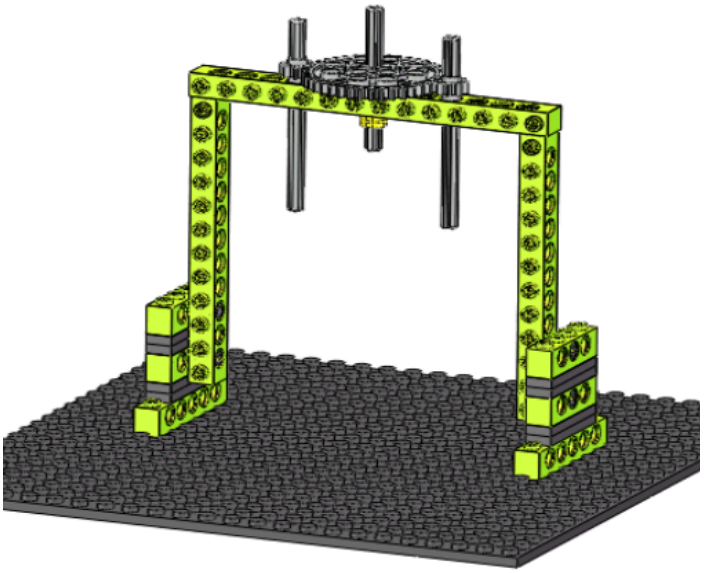


x2

x1

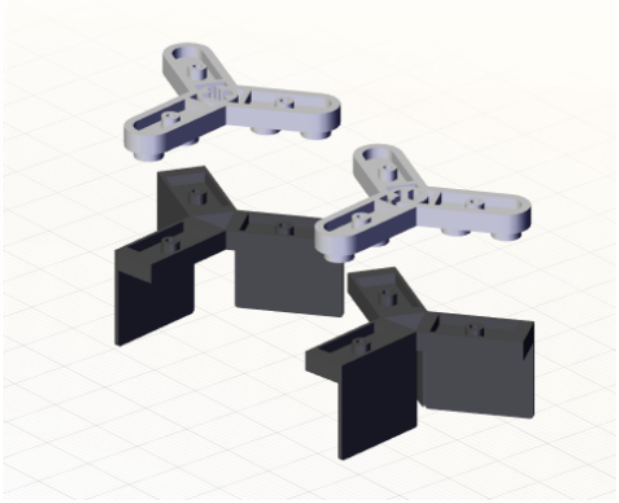
x1

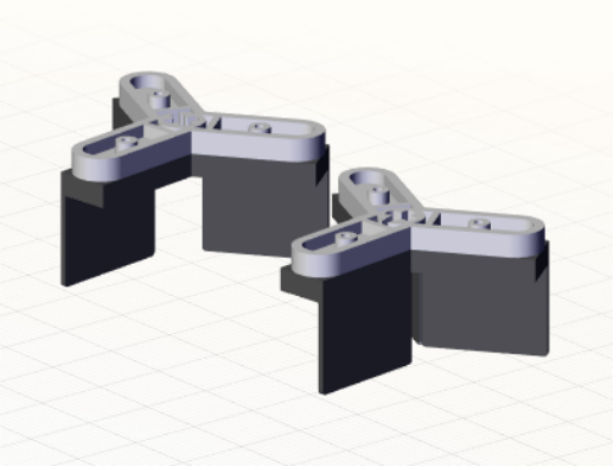




x2

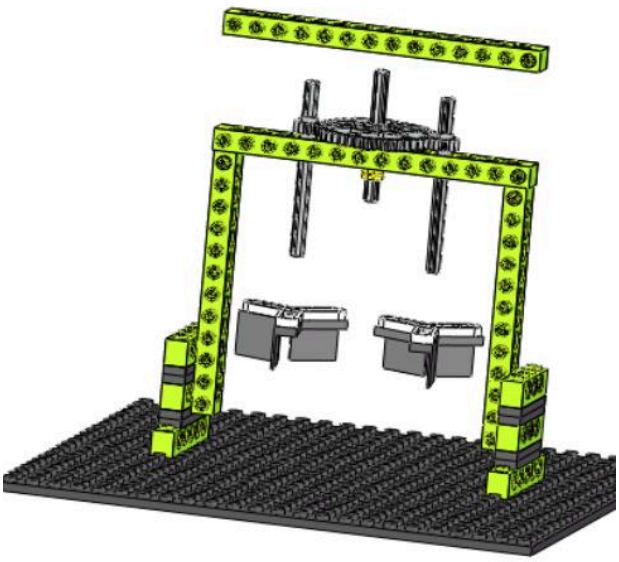
x6

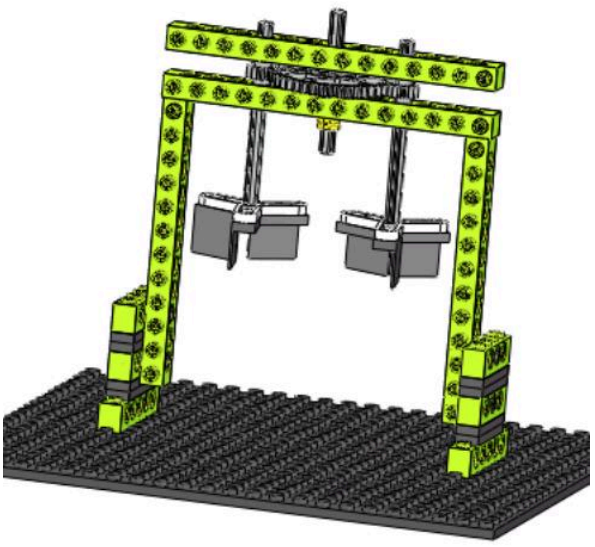




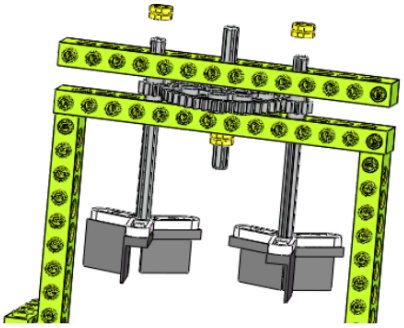
x1 (13 agujeros)

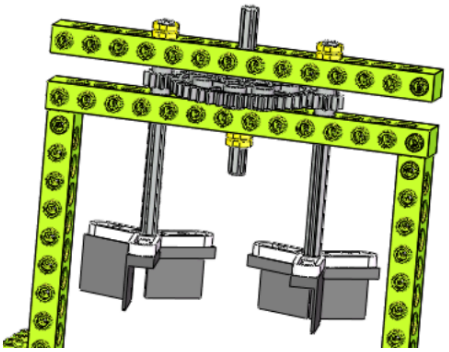
x2

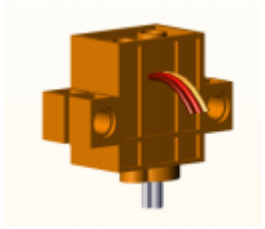




x2

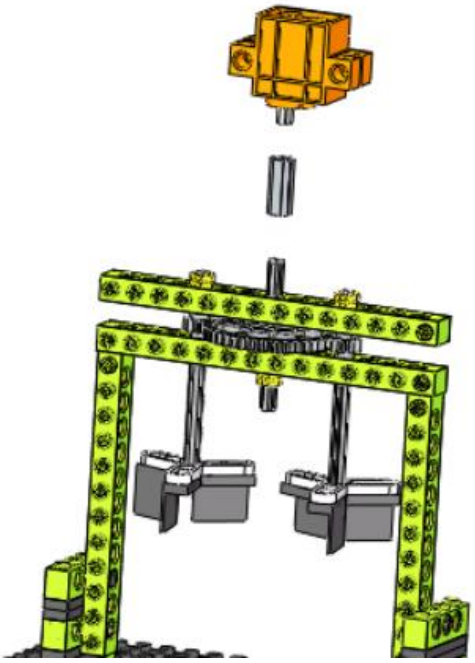


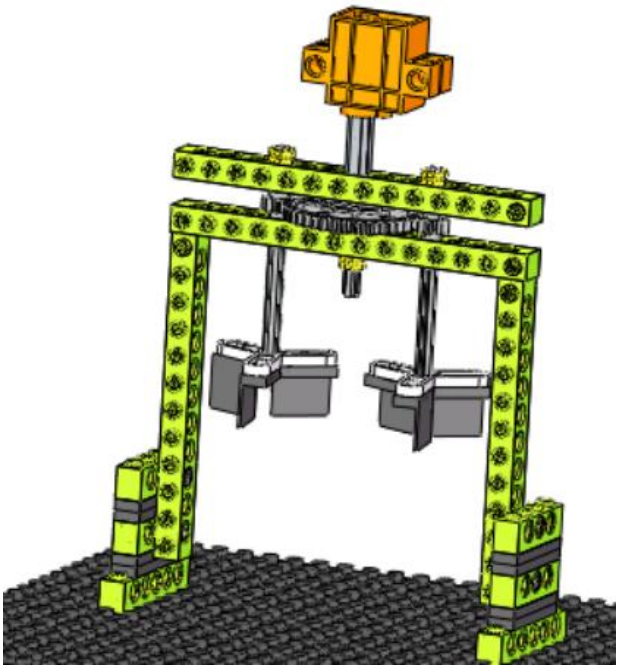




x1

x1

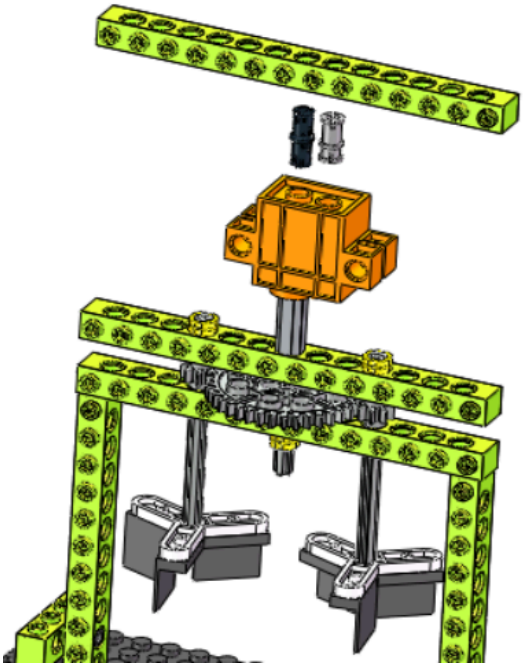


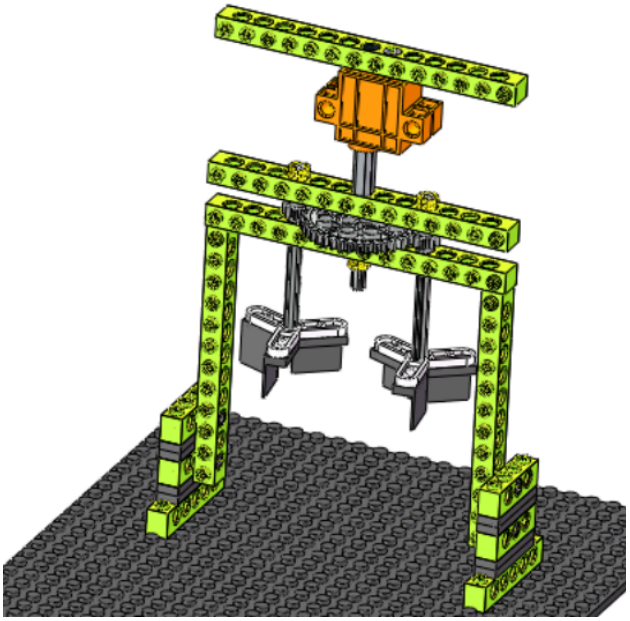


x1(13 agujeros)

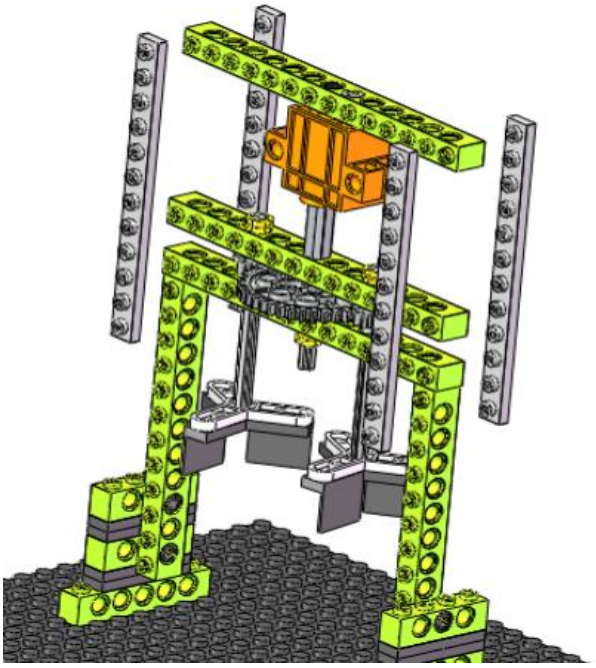
x1

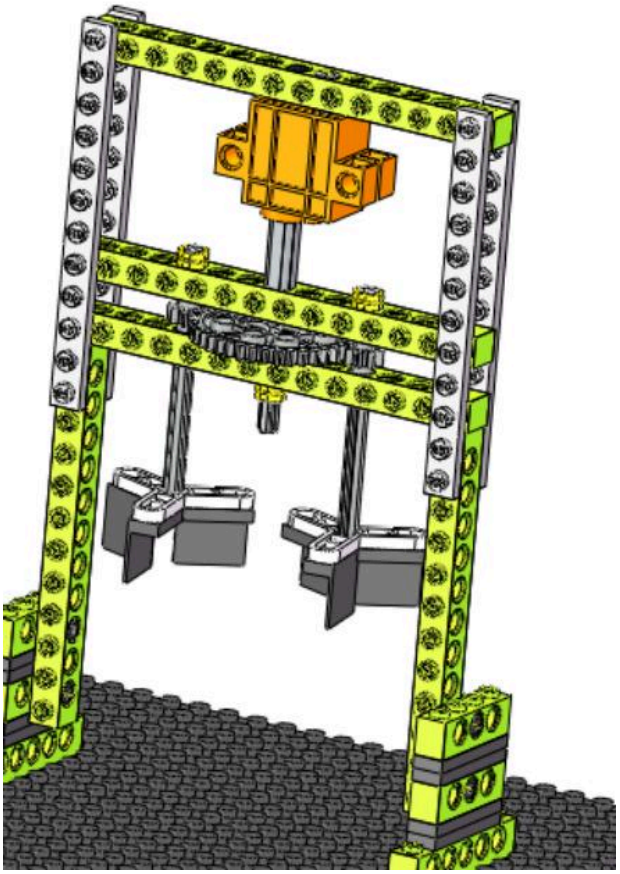
x1



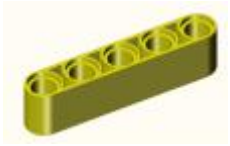


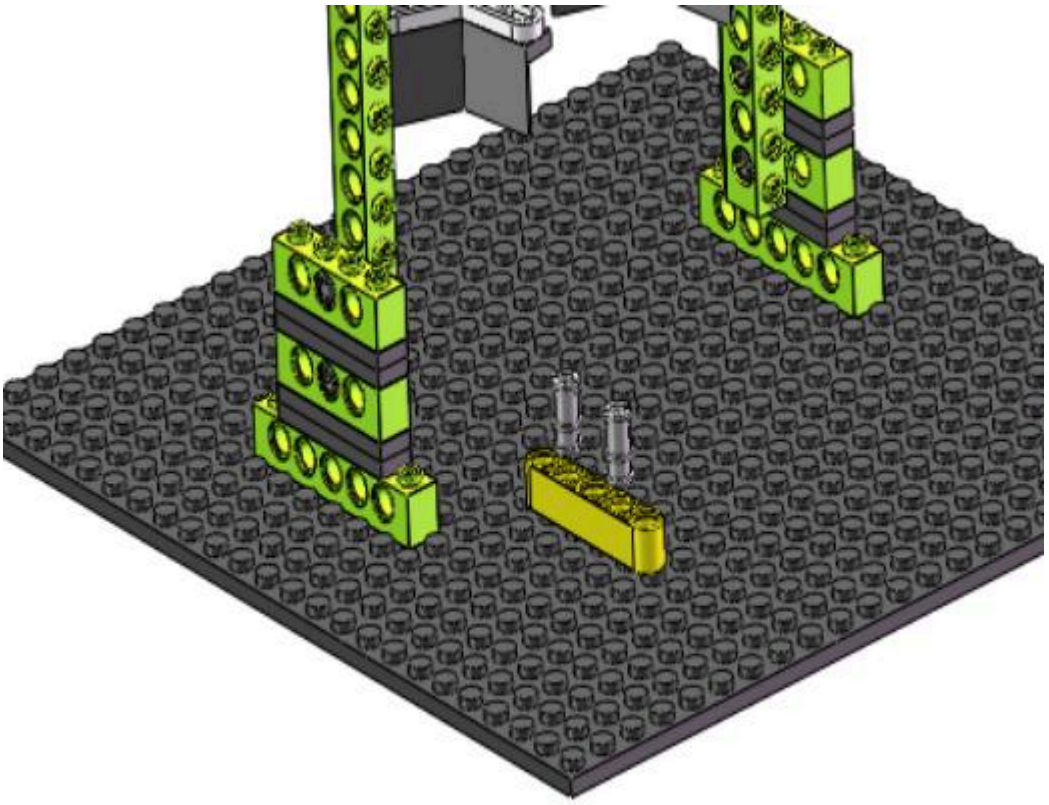
x4

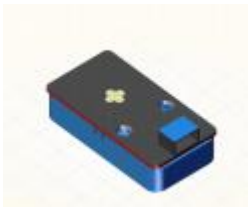




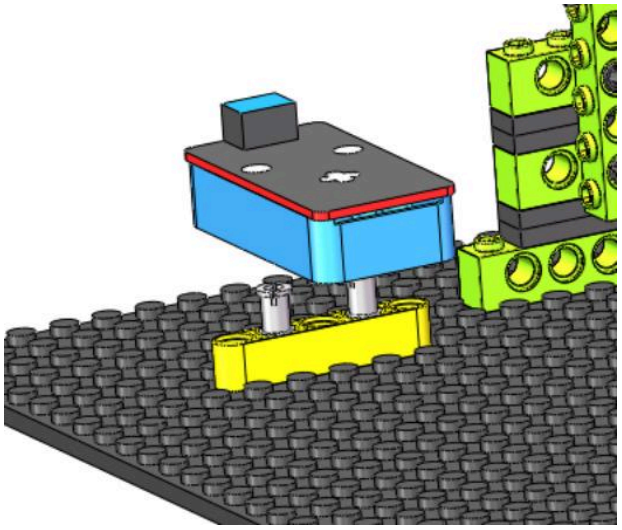
 **x2**

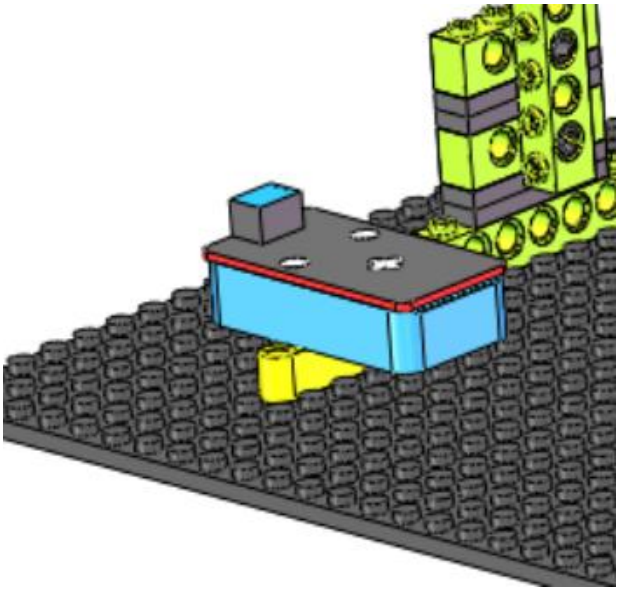
 **x1 (5 agujeros)**

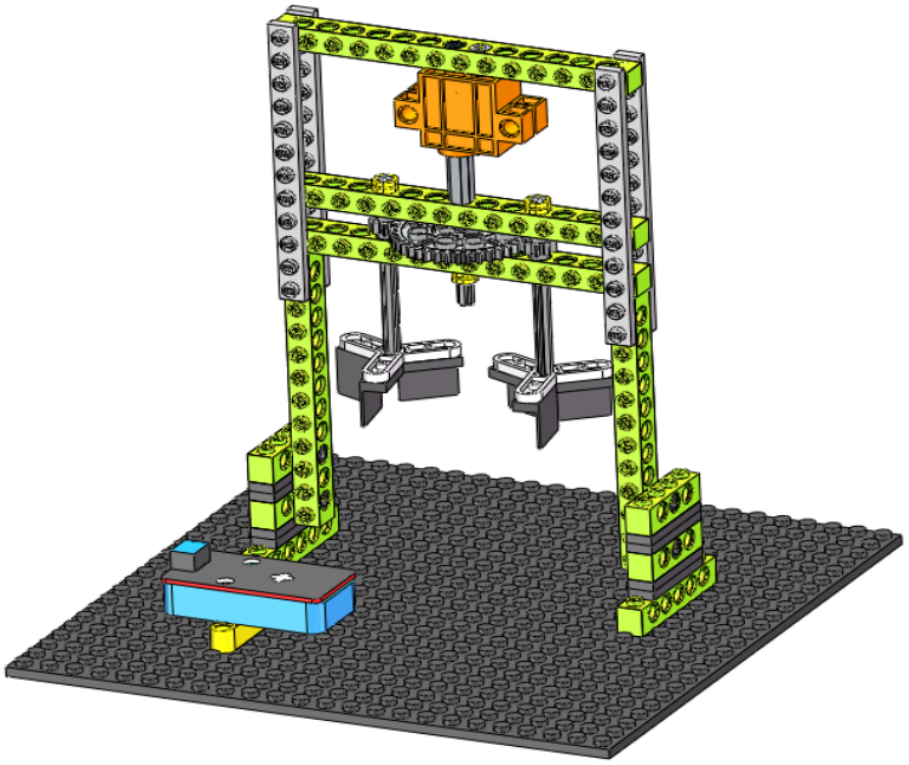




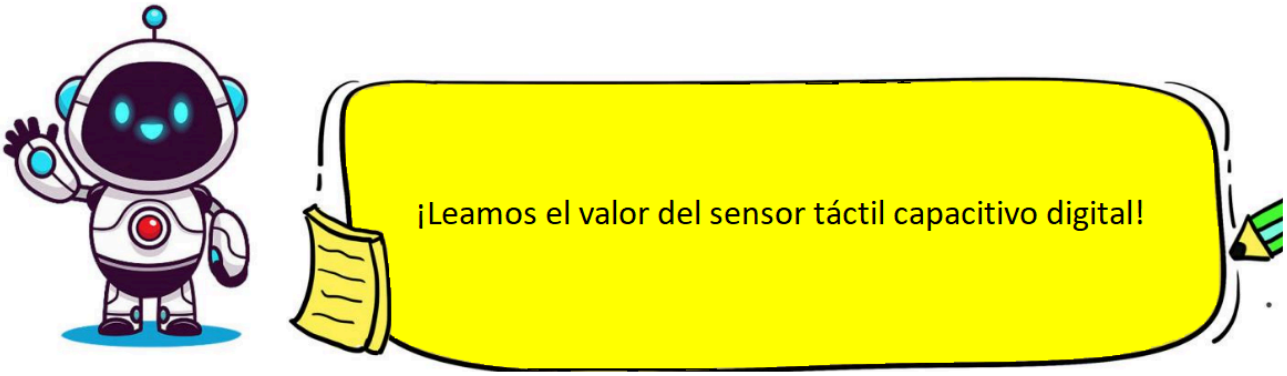
x1







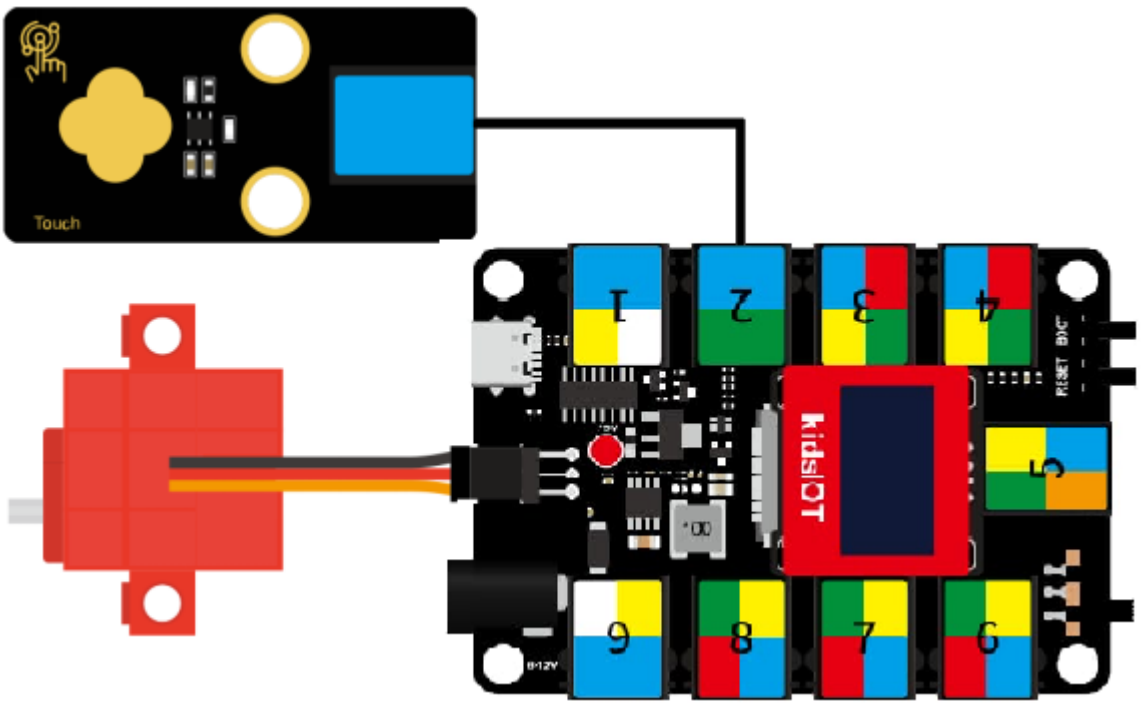
Lea el valor del sensor táctil capacitivo digital



4. Pasos de programación

Paso 1: Diagrama de cableado

Conecte la placa base kidsIOT y la computadora mediante un cable USB, y conecte el sensor táctil capacitivo digital a la interfaz No.2, el servo de 360° a las interfaces G, V y IO33 de la placa base. El cable marrón está conectado a G, el cable rojo está conectado a V y el cable naranja está conectado a IO33.



Paso 2: Realiza y comprueba tu programa.