



Bill of Materials			
Element	Amount	Piece number	Description
1	1	Upper syringe	10 ml syringe
2	1	Lower syringe	10 ml syringe
3	1	5V Stepper Motor	Ref: 28BYJ-48
4	1	Coupler	5mm to 5mm rigid coupler
5	1	M5 threaded rod	100 mm length
6	2	M5 nut	
7	2	M5 washer	Wide Flat
8	1	Spring	1mm wire diameter. 10mm inner diameter
9	2	Anti Backlash 1	PMMA 3 mm
10	2	Anti Backlash 2	PMMA 3 mm
11	2	Anti Backlash 3	PMMA 3 mm
12	1	Syringe tray 1	PMMA 3 mm
13	1	Syringe tray 2	PMMA 3 mm
14	1	Syringe tray 3	PMMA 3 mm
15	1	Chasis-Front	PMMA 3 mm
16	1	Chasis-Secondary	PMMA 3 mm
17	8	Chasis-Body	PMMA 3 mm
18	1	Chasis-back 1	PMMA 3 mm
19	1	Chasis-back 2	PMMA 3 mm
20	2	M4 rod	150mm length
21	2	M4 bolts and nuts	Fix the chasis

Diseño de iGEM Madrid-OLM	Revisado por	Aprobado por	Fecha		Fecha	
			Pump			
			Edición		Hoja 1 / 1	