Bill of Materials

Printed Components:

Component	Amounts	Material
Anti-Slip Cap for 3030 Profiles	4	NinjaFlex
Arm for fiber funnel	2 (minimum)	PLA
Axis Holder Bottom	4	PLA
Axis Holder Connected	2 (for transport band)	PLA
Axis Holder Top	6	PLA
Cage for electronics	TBA	PLA
Clamp	Part1: 4 with the hole for the screw Part2: 4 flat, without bolt hole	PLA
Funnels (Garnführungen)	All the size available	PLA
Gear	4	PLA
Motor Mount	2	PLA
Safety Caps for 3030 Profiles	4	PLA
Sliding mechanism	4 top 2 rotating parts (L shape) left 2 rotating parts (L shape) right 4 middle 2 bottom (left) 2 bottom (right)	PLA
Star bolt	4	PLA
Transport Band 960mm	1	NinjaFlex
Transport Band Wheels	2	PLA
Wheels	6	NinjaFlex

Hardware

3030 Profiles	1000mm	4
	200mm	4
	135mm	5
Round Metal Bar	D: 8mm, L: 20cm/15cm (Sliding mechanism)	4
	D: 8mm, L: 16cm (Transport Band back)	1

	D: 8mm, L: 17cm: (Transport Band front) (Front Wheels Top)	2
	D: 8mm, L: 18cm (Front Wheels Motor)	1
	Back Wheels: 16cm Top 17cm Bottom (+ Pulley)	 1 1
	Wheels after transport band: 16cm Top 18cm Bottom/Motor (+ Pulley)	 1 1
Summary Metal Bars	**3x 16 / 3x 17 / 2x 18 / 4x 20**	**12**
Pulleys	GT2 Pulley 20 teeth	4
	Closed Belt Pulley L: 198 W: 6	1
	Closed Belt Pulley L: 142 W: 6	1
Angles	Inside Angle with Nut M8 for 3030 Profil	18
Screws	Hexagon Head Screws with Shaft M8 x 70	4
	Cylindrical Screw M4x12	48
	Cylindrical Screw M3x30	4
	Cylindrical Screw M3x20 (motors)	8
Bolts	M8 Bolts for star bold	4
	M3 Bolt	4
Coupling	Motor coupling; D: 5 mm to 8 mm	2
Bearings	Linear round bearing for Sliding Bar LM8UU	4
	Round Bearings 8x16x5 mm	8
Electronics	Drivers	2
	NEMA 17 Stepper Motor (for R)	1
	NEMA xx Stepper Motor (for D)	1
	Motorshield - RAMPS 1.4 shield	1
	Arduino Mega: computersystem for running spinningwheel	1
	PC power supply (ATX) + cable: 420W, Akyga AK-B1-420	1