MMU upgrade on any printer

3d printer requirements: to print the different parts of the MMU you will need at least a 130*130*130mm print volume (may change in the future)

Parts: This is what the part list could potentially look like, things may be added or removed depending on the results that we get in the following weeks. Furthermore, the MMU may or may not need a direct drive setup so prices may change significantly if a direct drive upgrade has to be factored in.

quantity	Part name	Price (total, not /unit)
MMU spe	ecific	
2	5mm metal rods: 120mm or longer	6.50\$
6 to 10	608 bearings	6\$
1	Nema 17 stepper motor	15\$
5	Mk8 extruder gears	10\$
1	5mm to 5mm to connect the rod and the motor	4\$
	Ptfe tubing length unknown at this time but 2m should be enough (maybe 4)	In a pack: About 10\$ for everything
5	PC4-M6 couplers	
6	PC4-M10 couplers	
2	Idler springs, the ones I am using are the original MMU2 ones but will find a cheaper alternative.	8\$
Miscellan	eous	
M3 screws and nuts, M3 inserts, filament, limit switch		30\$
Other pot	tential requirements (will depend on your specific setup)	
1	Controller board with at least 5 independent stepper motor control (skr V1.3 for example), wait a bit before buying because a main board with at least 6 independent stepper motor controls may be required.	22\$
5	Drivers	20\$
Total		60¢ up to 120¢
Total		60\$ up to 130\$