

CSV19 Launcher							
Item	Part	Qty	Description	Part Number	Source	Price	Extended
1	Tennis Ball Barrel	1	PVC Pipe, 2.5", 16" long, SCH 40	48925K99	mcmaster.com	\$16.70	\$16.70
2	Barrel End Cap, Bored	1	PVC End Cap, 2.5", SCH 40	4880K143	mcmaster.com	\$3.10	\$3.10
3	Upper Elbow	2	PVC Elbow, 90°, 1.25", SCH 40	4880K24	mcmaster.com	\$1.14	\$2.28
4	Lower Elbow						
5	Elbow Joiner Pipe	1	PVC Pipe, 1.25", 2.5" long, SCH 40	48925K94	mcmaster.com	\$6.00	\$6.00
6	Pressure Chamber Outlet Bushing	2	PVC Reducing Hex Bushing, 1" NPT to 1.25", SCH 40	4880K206	mcmaster.com	\$1.30	\$2.60
7	Valve Outlet Bushing						
8	Pressure Chamber Outlet Bushing Support Tube	1	PVC Pipe, 1.25", 3/4" long, SCH 40 (Cut from Item 4)	48925K94	mcmaster.com	\$0.00	\$0.00
9	Pressure Chamber Pipe	1	PVC Pipe, 4", 8" long, SCH 40		homedepot.com	\$9.00	\$9.00
10	Pressure Chamber Forward End Cap	2	PVC End Cap, 4", SCH 40	4880K58	mcmaster.com	\$4.98	\$9.96
11	Pressure Chamber Rear End Cap, Bored						
12	Pressure Chamber Outlet Pipe	2	PVC Threaded Nipple, 1" NPT, 1.5" long	4882K15	mcmaster.com	\$1.12	\$2.24
13	Main Valve Outlet Pipe						
14	Main Valve Assembly	1	Sprinkler Valve, 1", Rainbird 100-DV	7267	sprinklergoods.com	10.76	10.76
15	Pressure Chamber Gauge	1	Pressure Gauge, 0-100 psi, 1/8" NPT	38105K32	mcmaster.com	\$9.92	\$9.92
16	Brass Elbow	1	Street Elbow, Brass, 1/4 NPT, Watts A-739	551961	homedepot.com	\$3.58	\$3.58
17	Trigger Valve Nipple	1	Nipple, Brass, Hex, 1/4" x 1/4"	193185	homedepot.com	\$1.56	\$1.56
18	Trigger Valve	1	Air Duster, 1/4" NPT, Jet JSG-1063	JSG-1063	industrialtoolandsupply.com	\$4.80	\$4.80
19	Pressure Chamber Fill Valve	1	Schrader Valve, 1/8 NPT, Camel 38-906	8063K33	mcmaster.com	\$3.86	\$3.86
20	Pressure Chamber Safety Relief Valve	1	Pressure Relief Valve, 100 psi, 1/8" NPT	48435K71	mcmaster.com	\$5.26	\$5.26
21	Barrel Slip Coupler	1	PVC Coupler, 2.5", SCH 40	4880K133	mcmaster.com	\$2.51	\$2.51
22	Hose Clamps	2	Hose Clamp, 3.5", Stainless Steel	5416K41	mcmaster.com	\$1.39	\$1.39
23	Cable Tie	1	Cable Tie, 24", Black	80005K56	mcmaster.com	\$0.58	\$0.58
24	Ramrod End	1	PVC Bushing, 1.5" to 1/2", SCH 40	4880K319	mcmaster.com	\$1.35	\$1.35
25	Ramrod Handle	1	PVC Pipe, 1/2", 18" long, SCH 40	48925K91	mcmaster.com	\$2.31	\$2.31
26	Trigger Strut	1	Aluminum, 1/2" x 4-1/2" x 1/8"	8975K527	mcmaster.com	\$5.15	\$5.15
27	Spacer						
28		1	Teflon Tape, roll	4591K12	mcmaster.com	\$1.74	\$3.48
29		1	PVC Glue, 8 oz.	18815K61	mcmaster.com	\$3.90	\$3.90
30		1	PVC Primer, purple, 8 oz.	18815K71	mcmaster.com	\$4.15	\$4.15
						Total:	\$116.44

Revised CSV19 Launcher							
Item	Part	Qty	Description	Part Number	Source	Price	Extended
1	Tennis Ball Barrel	1	PVC Pipe, 2.5", 17.5" long, SCH 40	48925K99	mcmaster.com	\$16.70	\$16.70
2	Barrel Bushing	1	PVC Reducing Hex Bushing, 2.5" x 1.25", SCH 40	4880K514	mcmaster.com	\$3.95	\$3.95
3	Upper Elbow	2	PVC Elbow, 90°, 1.25", SCH 40	4880K24	mcmaster.com	\$1.14	\$2.28
4	Lower Elbow						
5	Elbow Joiner Pipe	2	PVC Pipe, 1.25", 2.5" long, SCH 40	48925K94	mcmaster.com	\$6.00	\$6.00
6	Valve Outlet Bushing	1	PVC Reducing Hex Bushing, 1" NPT to 1.25", SCH 40	4880K206	mcmaster.com	\$1.30	\$1.30
7	Pressure Chamber Pipe	1	PVC Pipe, 4", 8" long, SCH 40		homedepot.com	\$9.00	\$9.00
8	Pressure Chamber Forward End Cap	1	PVC End Cap, 4", SCH 40	4880K58	mcmaster.com	\$4.98	\$4.98
9	Pressure Chamber Rear Coupling	1	PVC Reducing Coupling, 4" x 2", SCH 40	2389K7	mcmaster.com	\$8.74	\$8.74
10	Pressure Chamber Rear Bushing	1	PVC Reducing Bushing, 2" x 1" female NPT, SCH 40	4880K214	mcmaster.com	\$2.01	\$2.01
11	Pressure Chamber Outlet Pipe	2	PVC Threaded Nipple, 1" NPT, 1.5" long	4882K15	mcmaster.com	\$1.12	\$2.24
12	Main Valve Outlet Pipe						
13	Main Valve Assembly	1	Sprinkler Valve, 1", Rainbird 100-DV	7267	sprinklergoods.com	10.76	\$10.76
14	Pressure Chamber Gauge	1	Pressure Gauge, 0-100 psi, 1/8" NPT	38105K32	mcmaster.com	\$9.92	\$9.92
15	Brass Elbow	1	Street Elbow, Brass, 1/4 NPT, Watts A-739	551961	homedepot.com	\$3.58	\$3.58
16	Trigger Valve Nipple	1	Nipple, Brass, Hex, 1/4" x 1/4"	193185	homedepot.com	\$1.56	\$1.56
17	Trigger Valve	1	Air Duster, 1/4" NPT, Jet JSG-1063	JSG-1063	industrialtoolandsupply.com	\$4.80	\$4.80
18	Pressure Chamber Fill Valve	1	Schrader Valve, 1/8 NPT, Camel 38-906	8063K33	mcmaster.com	\$3.86	\$3.86
19	Pressure Chamber Safety Relief Valve	1	Pressure Relief Valve, 100 psi, 1/8" NPT	48435K71	mcmaster.com	\$5.26	\$5.26
20	Barrel Slip Coupler	2	PVC Coupler, 2.5", SCH 40	4880K133	mcmaster.com	\$2.51	\$5.02
21	Hose Clamps	2	Hose Clamp, 3.5", Stainless Steel	5416K41	mcmaster.com	\$1.39	\$2.78
22	Cable Tie	1	Cable Tie, 24", Black	80005K56	mcmaster.com	\$0.58	\$0.58
23	Ramrod End	1	PVC Bushing, 1.5" to 1/2", SCH 40	4880K319	mcmaster.com	\$1.35	\$1.35
24	Ramrod Handle	1	PVC Pipe, 1/2", 18" long, SCH 40	48925K91	mcmaster.com	\$2.31	\$2.31
25	Trigger Strut	1	Aluminum, 1/2" x 3-1/2" x 1/8"	8975K527	mcmaster.com	\$5.15	\$10.30
26	Spacer	1					
27		1	Teflon Tape, roll	4591K12	mcmaster.com	\$1.74	\$3.48
28		1	PVC Glue, 8 oz.	18815K61	mcmaster.com	\$3.90	\$3.90
29		1	PVC Primer, purple, 8 oz.	18815K71	mcmaster.com	\$4.15	\$4.15
						Total:	\$130.81