	Item	Qty per box	Supplier	Catalog #	Purpose
Box	T-slotted railing	6 ft	McMaster-Carr	47065T101	To support panels (1)
	Acrylic - 1/4" black	2.5	McMaster-Carr	8505K758	For back, 2x sides, top and bottom panels (2.5)
	Acrylic - 1/8" black	0.5	McMaster-Carr	8505K741	For front door panel (0.5)
	T-Slotted Framing, Compact-Head End-Feed Fastener, 1/4"-	24	McMaster-Carr	47065T139	Attach all door panels, hinges, magnet to rails (24)
	Handle	1	80-20	2888	Door (1)
	Hinges	2	Global Industrial	T9FB797477	Attach door to rails (2)
	12 - 24 screws	8	McMaster-Carr	91251A452	Attach base and top panels to rails after tapping (8)
	1/4-20 1" screws	8	McMaster Carr	92196A542	Screwing on hinge to rail (4), mounting diffuser (4)
	8-32 screws (3/8")	1	McMaster-Carr	90272A192	Holding magnet to rail (1-2)
	End-feed fastener, 8-32	1	Thor	47065T139	Holding magnet to rail (1-2)
	Magnetic latch	1	80-20	9315	Hold door closed (1)
	5/16-18 1/2" screw	6	McMaster Carr	93615A450	Screwing on handle (2), screwing on hinge to door (4)
	5/16-18 hex nut	4	McMaster Carr	90499A030	Attaching hinge to door (4)
	4-40 1/2" screw	1	McMaster-Carr	91735A106	Hold magnet on door (1)
	4-40 hex nut	1	McMaster-Carr	90730A005	Hold magnet on door (1)
Lighting and control thereof	PCB	1	Zach		Control light panel (1)
	Teensy	1	Adafruit	2756	Control light panel (1)
	AC barrel	2	SparkFun	PRT-10811	For main and AUX power on PCB
	3/16" nylon 4-40 screw	3	McMaster-Carr	93135A271	Attach mosfets on PCB
	4-40 nut	5	McMaster-Carr	94812A200	Attach mosfets on PCB
	3/4" nylon 4-40 screw	2	McMaster-Carr	94735a724	Attach PCB to box
	Conn term F	4	Digikey	WM1114-ND	Connect light board to PCB
	MOSFET N-CH 30V 80A TO-220AB	3	Digikey	FDP8860-ND	PCB
	3 Position Rectangular Housing Connector Receptacle	1	Digikey	WM2001-ND	PCB
	2 Position Rectangular Housing Connector Receptacle	1	Digikey	WM2000-ND	PCB

	CONN HEADER R/A 3POS 2.54MM	1	Digikey	WM2785-ND	PCB
	CONN HEADER R/A 2POS 2.54MM	1	Digikey	WM2784-ND	PCB
	Surface mount resistors (472)	2	Digikey	RG1608N-472-W-T1	PCB (2)
	12V power supply	2	KNEMA		Power PCB and light boards (2 per Knema dual channel board) - came with boards
	USB A-male to Micro B cable	1	SparkFun	CAB-10215	Connect Teensy to PC (1)
	Light board (5300K White, 850 nm IR)	1	KNEMA		Illuminate flies for tracking (1)
	Computer	1	Lenovo	ThinkCentre M720	Track flies (1)
Imaging	ELP-USB130W01MT-FV	1	Amazon	ELP-USB130W01MT-FV	Image flies (1)
	Lens (4 mm M12)	1	M12 Lenses	PT-0420	Image flies (1)
	Wratten filter (87C)	Size depends	B&H Photo Video	KO87C33O	Apply to camera to filter out anything but IR light
For each tray with 128 arenas	Diffuser film - 12 in x 36 in	12 x 12"	Grafix Plastics	0.007", matte on both sides (DFMM)	Diffuse IR light between board and flies
	Acrylic - 1/8" clear (32" x 18" sheet)	1.25	McMaster-Carr	8589K44	Mountboards, bases, lids
	Acrylic - 1/8" black (32" x 18" sheet)	0.33	McMaster-Carr	8505K745	Walls
	8-32 3/4" screws	16	McMaster-Carr	91772A197	Assemble sandwiches
	8-32 nuts	32	McMaster-Carr	90257A009	Assemble sandwiches, mount to board
	Size 3 cotton pellets	128-256	Richmond Dental	100108	Plug holes used to load flies, allow air flow into chamber