

## Pre-Engineering (PLTW)

## **Equipment List**

ITFM	<b>DESCRIPTION</b>
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Student Computer

**Back Saw** 

Bastard-Cut Mill File

Butter Knife, metal

Classroom Storage Cabinet

Colored Permanent Markers

Desktop 3-Hole Punch

Digital Camera

File Handle

Meter Stick

Miter Box

Needle Nose Pliers

Ruler, Plastic - 10 pack

Safety Glasses - 12 pack

Scissors - 12 pack

SD Card

Storage Organizer

VEX Gateway Kit

**VEX Gateway Transition Kit** 

**VEX Performance Tool Kit** 

2 Amp Multi-Output Power Supply B27: B71 B27: B73 B27: B74 B27: B69

Acrylic Balls 1/2" - 50 pack

Adjustable Wrench,8 in, 1.25 in max opening

Alligator Leads Set of 10 Leads

Architectural Scale, 12" Triangle with 6 Divisions, engraved

Auto Level Nikon #AX2S, 20X Magnification with stadia lines

Banana to Alligator Test Lead Set

Banana to reinforced Test Pin Lead Set, 36" red and black

Bastard-Cut Mill File, 8 inch

Brass bottom pan, 8" for soil sieve

Brass Cover, 8" for sieve pan

Bucket, 6-gallon, plastic with handle

Building Block set, wooden painted, 8 block shapes

Carabiner Shuttle pens

Chain, 2-foot length, 3/4-inch length links

Civil Engineering Scale, Triangular, White Plastic

Clamp Light, Reflector, white 6' cord, each

**Combination Square** 

Compact Scale, 1000g x .1g accuracy

Compact Scale, 2000g x 1g

Compression and extension springs, assorted small

Concrete Block

Cordless Drill



Crucible Tongs

Delrin Balls - pack of 10

Dial Calipers, 6-inch, steels, graduated to .001 inches

Digital Camera, 10.0 megapixel

Digital Multimeter Super Economy Plus DMM

Dremel 3d Printer Bundle for IED

Drill Press Vise, 4" capacity

Easy Cutter

Eye screws, #4 size, (25 pack)

File handle for 8" to 10" files, pack of 5

Fishing snap swivels (any size, 12 pack)

Gauge block, Steel

Glue Gun, Lo-Temp Full Size, 110 Volt

Graduated Cylinder, 100 mL, Polypropylene, case of 12

Hack saw, for 0" or 12" blade, d-handle, each

Hand Lenses, 3x magnification

Headphones, basic, 5 pack

Hex Key set folding, 9 sizes

Hickory Hammer, 16 oz

Hook Up Wire 22 Gauge, Solid, Black 25 feet

HSS Drill Bits, 1/16" - 1/2" by 64ths, with case, 14 pieces

**IED Material Testing Kit** 

IED Metal Dowel Pin Kit

Instant Read Probe Thermometer

Jaw style/claw staple remover

Lamp base E10

Locking Pliers, 7" 1 5/8" curved jaw, each

Lynx motion PLTW Robotic Arm Kit (assembled) w/ base

Magnetic Wand, 1 piece

Melamine board, 4ft x 8 ft, cut into four count 2 ft x 4 ft boards

Mini push button switch, 10 pack

Momentary switch, 20 pack

Multipurpose Wire Stripper and Cutter for Wire AWG 14 to 24

Needle Nose Pliers, 5-inch, 5 pack

Nitinol Memory Wire, 1 ft

Ohaus Triple Pro Balance, 2610 g capacity, 0.1 g Sensitivity

Paper Cutter, 12 inch cut length

PLTW IED VEX IO Kit

Precision Rubber Mallet, 16 oz.

Protractors, Semicircular Transparent, 12 pack, 3.5 inch

PVC Pipe, Schedule 40, 1" x 24"

Reamer

Resistor Kit, 365 Piece, 1/4 Watt

Rod Level, Seco

RSR Solderless Breadboard Model MB106

RSR Variable DC Power Supply 18V 0-2A

Rubber Mallet, 16 oz.

Ruler, clear plastic, 12 inch / 31 cm, metric and English, 10 pack

Safety Glasses, 12 pack, black frame

Scissors, 7-inch, plastic handle, pointed tip - 12 pack



Screwdriver Set, 12-piece, slot and Phillips tips

SD Card, 8 GB+ (for use with digital camera)

Self-healing cutting mat - 11.8 in x 8.7 in - pack of 6

S-Hook, 1.75-inch, pack of 10

Sieve, Soil Testing, #4, 8" Dia

Sieve, Soil Testing, #40, 8" Dia

Single AAA-battery holders, 10 pack

Slide Staple Remover

Slip joint pliers, 8" L, milled jaws, each

Socket Set, 3/8 in. Drive SAE/Metric, 19-Piece

Solderless Bread board with 300 tie points

Spring Clamps, 3-inch jaw opening

Spring Scale, Push and Pull, 1 Kilogram (10.0 N capacity)

Steel Balls, 1/2 inch, 100 pack

Storage Organizer, 4 pack

Student Computers

Syringes, 10 cc/mm, 10 pack, standard tip

Syringes, 20 cc/mm, 10 pack

Syringes, 30 cc/mm, 10 pack, standard tip

Tape measure, steel, 25 feet with thumb lock

Tape measure vinyl (10 pack), 60" length, inch, and CM

Thermodynamics Heat Box Classroom set (3 units)

Trammel toy base - 5 pack

Trigger Bar Clamp, Medium, 12 inches, 2 pack

Trigger Bar Clamp, Medium, 6 inch

Tripod, Aluminum Extension Legs with shoulder strap

Utility Knife, metal, with 5x replacement blades

Vernier Dual Range Force Sensor

Vernier Go! Link

Vernier Stainless Steel Temperature Probe

VEX IQ Pin Tool (10-pack)

VEX POE/CIM Kit - Cortex

VEX POE/CIM Transition Kit - New V5

Webcam, generic USB,

Weight, Dumbbell 2ld, 1 pair

Weight/Dumbbell, 1lb, 1 pair

Wood Round Balls, 1/2 inch diameter, 100 pack

Wrench Set, 9 pence, SAE

3/32" Hex Keys (8-pack)

Air Compressor Hose, 25-foot length

Air Compressor, Portable, 5 gal. tank

Alligator Leads Set of 10 Leads

Ball End, 1/4"

Band saw, Bench top, 9" throat, 115V, 1/5 HP, Tilting

Bench Mill 6100 CNC Milling Machine

Connector Socket, 22-26 AWG, Tin Crimp, 100 pack

Drill press, bench top, 8", 5-speed, 1/3HP, 1Ph, 120V, each

Edge Finder

End Mill Tool, square, 0.25-inch diameter, 1.5-inch length

End Mill, 1/8"



End Mill,3/8"

**Engraver Drill Bit** 

Headphones, basic, 5 pack (for audio in course & assessment)

Height offset sensor

Hex Key Set, 10 Piece Metric

Hex Key Set, folding, 9 sizes

Hickory Hammer 16oz

Hook Up Wire 22 Gauge, Solid, Black 25ft

Hook Up Wire 22 Gauge, Solid, White 25ft

HSS Drill Bits, 1/16" - 1/2" by 64th, with case, 14 pieces

Jaw style, claw staple remover

Male Headers, 20 x .025-inch posts, 10 pack

Pliers, curved jaw slip joint, channel lock

Stopwatch, handheld, LED 10 pack

Wrench set, 10-piece, Metric

2 Amp Multi-Output Power Supply

Battery Holder, 4 x AA Capacity, 10 pack

Desolder Pump with Tip

Digital Logic Probe

Green LED - 5 mm, 1.9 V, 100 pack

Hack saw, for 10" or 12" blade, d-handle, each

Lead Free De-Soldering Braid Rosin, .05 inch, 5 pack

Lighted Magnifier, 4x Magnification

Lighted Magnifier, lens free

Mini Table Vise, 1.5 inch

Parallax Student DE Bundle with Arduino

PLTW Digital Electronics Integrated Circuits Kit

PLTW my DAQ Digital Mini System

Red LED - 5 mm, 2 V, 500 pack

Resistor/Capacitor Kit

RSR Helping Hand with Magnifier

RSR High Performance 25 Watt 3-Wire Iron

RSR Soldering Iron Stand

Solderless Breadboard with 300 Tie Points

USB A to USB B micro cable, 1.64ft

VEX DE Kit

Yellow LED - 5 mm, 2.1 V, 100pack

Back Saw, 14 inch, 12-14 teeth per inch

Miter Box, clamping

Socket Set, 3/8 in. Drive SAE/Metric 19-Piece

Vernier LabQuest Mini

Vernier Turbidity Bottles

Vernier Turbidity Sensor