**C: Classification Guidelines for K12 Makerspace Tools, Machines, and Equipment**

| **Device Class** | **1** | **2** | **3** | **4** |
| --- | --- | --- | --- | --- |
| **Description** | Low power hand and bench tools | Medium power hand and small benchtop tools | Medium power industrial and construction-scale tools | Powerful portable and industrial tools |
| Handheld /Portable Tools, manual and powered | * Most manual hand tools such as screwdrivers, pliers, cutters, wrenches, hammers, saws * “Dremel” style tools * Cordless drills ≤ ½ hp * Palm sanders * Soldering irons * Glue guns * Heat guns | * Small corded portable hand tools < 1/3 hp such as 3/8” chuck hand drills, jig saws, belt sanders, angle grinders * Cordless drills > ½ hp | * Portable construction-scale powered hand tools such as circular saws, reciprocating “Sawz All” saws, ½” chuck hand drills, hand-held routers | * Powder-actuated tools |
| 3D Printers | Most small bench units | Most larger format units | Larger format units | Industrial units, metal printers, caustic baths |
| Sewing Machines | Small benchtop units |  |  |  |
| Vinyl Cutters | Small benchtop units |  |  |  |
| Hot-wire Foam Cutters | Small benchtop units |  |  |  |
| Scroll Saws | Small benchtop units |  |  |  |
| Spray Booths | Small benchtop units | Larger / walk-in units |  |  |
| Laser Cutters |  | Benchtop units | Larger format units |  |
| Thermo-Former |  | Most benchtop units | Larger format units |  |
| Drill Presses |  | Most benchtop units | Stand-alone units |  |
| Band Saws |  | Most benchtop units | Stand-alone units |  |
| Chop/Miter Saws |  | Most benchtop units |  |  |
| Belt/Disc Sanders |  | Most benchtop units | Stand-alone units |  |
| Bench Grinders & Buffers |  | Most benchtop units | Stand-alone units |  |
| Table Saws |  |  | Table saws with presence sensing safety feature, e.g., SawStop or equivalent only | All other table saws |
| CNC routers (such as ShopBot) |  |  |  |  |
| Milling machines, Manual or CNC |  | Small mini-benchtop units, enclosed and interlocked | Large bench and small stand-alone units | Large industrial units, open format units |
| Lathes, Manual or CNC | Small “Jeweler” style | Small mini-benchtop units, enclosed and interlocked | Benchtop units | Large industrial units |
| Sheetmetal Tools (brakes, shears, rollers) | Small manual benchtop units | All other manual units | Small powered units | Large industrial units, including all powered rollers |
| Water Jet cutters |  |  | Small stand-alone units | Large industrial units |