**Suggested Use**

The following is a list of the basic items provided in the Tool Crib. The quantities supported 15 groups with 4 participants / group. Each group made one prototype project solution to the design challenge.

Prices are estimates only, based on pricing at local stores (December 2013). If you need to reduce the budget, you could prototype using only cardboard and recycled materials, omitting the drills, saws, and PVC pipe from the list.

**Shared Tool Crib**

| **Item** | **Quantity**  | **Note** | **Suggested Source** | **Approximate Cost** |
| --- | --- | --- | --- | --- |
| First Aid Kit | 1 | Basic Kit | Access to school First Aid kit | N/C |
| V Block | 5 large | Used to hold 3 – 4” pipe for cutting | Ask a shop teacher to make them | N/C |
| V Block | 5 small | Used to hold up to 1” pipe for cutting | Ask a shop teacher to make them | N/C |
| Power Drill | 2 | Cordless electric drillKit – Approx. $100 ea | Building supply store | $200.00 |
| Drill bits | 1 package | Small size set to create holes for wire or bolts | Building supply store | $15.00 |
| Spade bits | 3  | Sizes to match outside dimension of PVC pipe  | Building supply store | $10.00 |
| Doweling | 15 lengths / various thickness | Individual lengths could be pre cut; much cheaper than dowel lengths from hobby stores1/2 “ x 72” = $5.19¾ “ x 72 “ = $5.99¼ “ x 48” = $1.40 | Building supply store | $61.60 |
| Hack saws  | 3 | Easier to cut with than wood saws | Building supply store | $29.97 |
| Hack saw blades | 3  | Fine blades to reduce chipping | Building supply store | $11.97 |
| Ratchet clamps | 5 | Used to make cutting safer; use with v block to hold round material$3.00 ea | Building supply store | $15.00 |
| PVC (1/2”) – 90 degree elbows | 15 | Used for structural supports / framing  | Building supply store | $8.85 |
| PVC (3/4”) – 90 degree elbows | 15 | Building supply store | $11.85 |
| PVC (1”) – 90 degree Elbows | 15 | Building supply store | $16.35 |
| PVC (1/2”) – 45 degree elbows | 15 | Building supply store | $10.35 |
| PVC (3/4”) 45 degree elbows | 15 | Building supply store | $17.85 |
| PVC (1”) 45 degree elbow | 15 | Building supply store | $23.85 |
| PVC (1/2”) Tee  | 15 | Building supply store | $11.85 |
| PVC (3/4”) Tee  | 15 | Building supply store | $11.85 |
| PVC (1”) Tee | 15 | Building supply store | $22.35 |
| PVC (1/2”) Cross | 10 | Building supply store | $17.90 |
| PVC (3/4”) Cross | 10 | Building supply store | $17.90 |
| PVC (1”) Cross | 10 | Building supply store | $27.90 |
| PVC (1/2”) Coupling | 15 | Building supply store | $7.35 |
| PVC (3/4”) Coupling | 15 | Building supply store | $8.85 |
| PVC (1”) – Coupling | 15 | Building supply store | $19.35 |
| PVC (1/2”) – Cap | 10 | Building supply store | $4.90 |
| PVC (3/4”) – Cap | 10 | Building supply store | $6.90 |
| PVC (1”) – Cap | 10 | Building supply store | $9.90 |
| PVC (1/2” – ¾”) Bushing | 5 | Building supply store | $2.95 |
| PVC (1/2” – 1”) Bushing | 5 | Building supply store | $8.90 |
| PVC (3/4” – 1”) Bushing | 5 | Building supply store | $5.95 |
| PVC (1/2”) pipe | 10’ x 10 pieces | Building supply store | $21.90 |
| PVC (3/4”) pipe | 10’ x 10 pieces | Building supply store | $26.90 |
| PVC (1”) pipe | 10’ x 10 pieces | Building supply store | $36.90 |
| Vinyl Electrical Tape | 3 rolls | Comes in red, yellow and green$1.49 / roll @ 66 feet / roll | Dollar store | $4.47 |
| Cord | 1 roll | 40 feet  | Dollar store | $1.99 |
| Small magnets | Mixture of sizes | Consider sheets of magnets that can be cut | Dollar store | $1.25 |
| Washers | 1 box | Small sizes to match cotter pins | Machine shop | $2.99 |
| Cotter pins | 1 box | Small box of mixed sized pinsPackage of 144 misc pieces | Princess Auto | $2.99 |
| Nuts and bolts | 1 box | Small box of mixed sized sizesBox of 172 misc size pieces | Princess Auto | $9.99 |
| Velcro | 1 box  | Velcro can be cut into appropriate lengths¾ x 66 feet | Princess Auto | $9.99 |
| Styrofoam | Small pile | Use recycled Styrofoam from packing – used in place of wood | Recycling centre | Free |
| Cardboard | Small pile | Sheets of various thickness – used in place of wood | Recycling centre or Costco | Free |
| **Approximate Total** | **$736.81** |