**BItMake Lab Parts Checklist**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | Essentials kit | School kit | Invention Kit |  |
| A wooden board with holes  Description automatically generated | Large Project Board | 1 | 1 | 1 |  |
| A wooden board with holes  Description automatically generated | Small Project Board | 0 | 1 | 1 |  |
|  | Microbit V2 | 1 | 2 | 2 |  |
|  | Motor Controller Board  (DF Robot Robotics Board) | 1 | 1 | 1 |  |
|  | Edge Connector Board  (DF Robot Expansion Board) | 0 | 1 | 1 |  |
|  | 3AA Battery Box | 1 | 1 | 1 |  |
|  | 2AAA Battery Box | 1 | 1 | 1 |  |
| A close-up of a cable  Description automatically generated | USB Cable | 1 | 1 | 1 |  |
| A group of white nuts  Description automatically generated | Nylon Nuts | 5 | 10 | 10 |  |
|  | TT Motor | 2 | 2 | 2 |  |
|  | TT Wheel | 2 | 2 | 2 |  |
|  | Caster Wheel | 1 | 1 | 1 |  |
|  | Large Button | 0 | 4 | 4 |  |
|  | Potentiometer | 0 | 1 | 1 |  |
|  | Microswitch | 0 | 2 | 2 |  |
|  | LED | 0 | 3 | 3 |  |
|  | TT Motor Bolt Connector | 0 | 0 | 2 |  |
|  | Servo Motor Bolt Connector | 0 | 0 | 2 |  |
|  | Angle Brackets | 0 | 0 | 3 |  |
| Several different colored wires  Description automatically generated | GS wires – Green/Black (digital) | 0 | 5 | 5 |  |
| Several different colored wires  Description automatically generated | GVS wires – Blue/Red/Black (analogue) | 0 | 1 | 3 |  |
|  | Mixed beams + bolts | 0 | 0 | 1 |  |
| A close-up of a couple of small objects  Description automatically generated | Light Sensor | 0 | 0 | 2 |  |
| A small blue device with two round holes  Description automatically generated | Ultrasonic Sensor + cable | 0 | 0 | 1 |  |
| A small blue and black electronic device  Description automatically generated | Line Follower + cable | 0 | 0 | 1 |  |
| A close-up of a small device  Description automatically generated | Servo Motor | 0 | 0 | 2 |  |
| A digital clock with numbers  Description automatically generated | 7-Segment LED Display  + cable | 0 | 0 | 0 |  |
|  | Break-beam sensor | 0 | 0 | 0 |  |
|  | Bend sensor | 0 | 0 | 0 |  |
|  | Neopixel strip | 0 | 0 | 0 |  |

**Kit Making Times**

School Kit

* 3D printing 1hr 40
* Soldering and gluing 1hr 30
* Cables 0h 30

**Train Kit Box (6 trains)**

|  |  |  |
| --- | --- | --- |
| **Photo** | **Description** | **Quantity** |
|  | 8x3 Project Board | 6 |
| A pair of black and green electronic components  AI-generated content may be incorrect. | Microbit V2 (6 for trains, 1 for signal) | 7 |
| A black circuit board with green and red buttons  AI-generated content may be incorrect. | Motor Controller Board | 6 |
|  | 3AA Battery Box | 6 |
| A close-up of a cable  Description automatically generated | USB Cable | 6 |
| A group of white nuts  Description automatically generated | Nylon Nuts | 30 |
|  | TT Motor with holder (new version with long bolt) | 6 |
|  | Spacers for TT motor | 6 |
|  | Free wheel holder | 6 |
|  | Free wheel spacer | 6 |
|  | Motor wheel | 12 |
|  | Free wheel | 12 |
|  | Wooden rod for freewheel | 6 + spares |
|  | Screws for motor wheel | 6 + spares |
|  | Edge Connector Board  (DF Robot Expansion Board) | 1 |
|  | 2AAA Battery Box | 1 |
|  | Microswitch | 6 |
|  | LED | 6 |
|  | GS wires – Green/Black (digital) | 12 |
| A small blue device with two round holes  Description automatically generated | Ultrasonic sensor | 6 |
|  | Ultrasonic cable (black-brown-white-red) | 6 |
|  | Break-beam sensor ( 2 parts per sensor: one has red-black cables, one has red-black-white cables) | 2 pairs |
|  | Lego connectors for break-beam sensors | 2 |
|  | Tracks set | 1 |
|  | Screwdrivers – Phillips size 0 | 6 |
|  | Blue tak |  |
|  | Masking tape |  |