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| **Activity 6.4 Product Disassembly Chart** |

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| Product Name: | **Ripstik** |
| Date: | **3/27/18** |

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| *Part#* | *Part Name* | *Qty* | *Dimensions*  *(inches)* | *Function* | *Material* | *Density* | *Mass*  *or Weight* | *Texture  and Finish* | *Interaction with Other Parts* | | *General Notes*  *(i.e.; wear, stress indicators)* | |
| *1* | *Back Board* | *1* | *2 thick, 15.88 wide* | *The main part of the board in the back, has back board cover and wheel* | *Plastic* |  |  | *Matte / Rough* | *Connects to the Wheel, Back Board Cover, and Middle Rod* |  | | |
| *2* | *Back Board Cover* | *1* | *.1 thick, 6.25 length,*  *15.2 width* | *Mostly aesthetic and for platform for your feet* | *Plastic* |  |  | *Glossy* | *Goes on top of the back part of the board for visual reasons* |  | | |
| *3* | *Front Board Cover* | *1* | *.11 thick, 6.38 length,*  *13.5 width* | *Mostly aesthetic and for platform for your feet* | *Plastic* |  |  | *Glossy* | *Goes on top of the front part of the board* |  | | |
| *4* | *Front Board* | *1* | *2 in thick, 8 long, 14.25 wide* | *The main part of the board in the front, has front board cover and front wheel* | *Plastic* |  |  | *Matte / Rough* | *Connects to the Front Wheel, Front Board Cover, and Middle Rod* |  | | |
| *5* | *Rotation Resistor* | *1* | *9.13 x .97 x .08* | *Resists rotation between the two ends of the board without totally restricting it* | *Steel Alloy* |  |  | *Semi-Glossy* | *Attached to two end pieces by rivets* | *A hole in each end, symmetrical* | | |
| *Part#* | *Part Name* | *Qty* | *Dimensions*  *(inches)* | *Function* | *Material* | *Density* | *Mass*  *or Weight* | *Texture  and Finish* | *Interaction with Other Parts* | | *General Notes*  *(i.e.; wear, stress indicators)* |
| *6* | *Rivet* | *2* | *Three cylinders in this order: D .32, D .18, D .27, two ends with thickness of .07, middle with thickness of .29* | *Attaches the two end pieces to the rotation resistor* | *Steel* |  |  | *Glossy* | *Inserted into the corresponding holes in the rotation resistor and the two end pieces* |  | | |
| *7* | *End Resistor Piece* | *2* | *Thickness of .29 reduced to .2, 1.97 long, .97 wide* | *Used to connect the rotation resistor and a bolt on each side* | *Steel* |  |  | *Matte / Machined* | *Bolt screwed in larger hole, rivet in the other attaching one to each end of the rotation resistor* |  | | |
| *8* | *Middle Rod* | *1* | *Hollow rod, 9 in long 1.23 in diameter, .03 in wall thickness* | *To connect the two main pieces/platforms* | *Steel* |  |  | *Glossy finish* | *Between the two main parts* | | *Not for aesthetic, no part is seen from the outside* | |
| ***Part#*** | ***Part Name*** | ***Qty*** | ***Dimensions*** | ***Function*** | ***Material*** | ***Density*** | *Mass*  ***or Weight*** | ***Texture  and Finish*** | ***Interaction with Other Parts*** | | *General Notes*  ***(i.e.; wear, stress indicators)*** | |
| *9* | *Middle Rod Cover* | *1* | *Hollow rod with 1.38 diameter, 3.9 length and .06 wall thickness* | *Goes over the middle rod, mostly for aesthetics* | *Steel* |  |  | *Glossy finish* | *Over middle rod* | | *Has grooves cut into it that reveal the steel’s color while the rest is stained black* | |
| *10* | *Buffer Piece* | *2* | *.06 wall thickness, .69 radius* | *Acts as a buffer between the middle rod and the two main pieces/platforms* | *Flexible Plastic* |  |  | *Matte finish* | *Over the middle rod on either side of the cover* | | *Has a small cut in the side to allow it to flex* | |
| *11* | *Axel-Male* | *2* | *Height of .92, shaft diameter of .23* | *Bolt that acts as one end of the axels the two wheels go on* | *Steel* |  |  | *Glossy* | *Screws into the other end of the axel* | | *One for each wheel* | |
| *12* | *Axel-Female* | *2* | *1.5 overall length, 1.32 shaft length* | *Acts as the axel for the wheel to spin on* | *Steel* |  |  | *Glossy* | *Other side of the axel screws into the threaded hole in the end* | | *One for each wheel* | |
| *13* | *Axel Buffer* | *4* | *.41 diameter, .19 height* | *Acts as a buffer to fill the space on each side between the wheel and the ends of the axels where it’s mounted to the rest of the board* | *Steel* |  |  | *Glossy* | *Goes on the axel* | | *Two for each wheel* | |

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| *Part#* | *Part Name* | *Qty* | *Dimensions* | *Function* | *Material* | *Density* | *Mass*  *or Weight* | *Texture  and Finish* | *Interaction with Other Parts* | *General Notes*  *(i.e.; wear, stress indicators)* |
| *14* | *Axel Mount* | *2* | *2.5 tall, 3.08 wide, base / baring part .7 tall, .95R* | *Connects the axel to the rest of the board, adds a degree of freedom* | *Steel* |  |  | *Matte / Machined* | *Goes in between the two ends of the axel and the buffers are in-between them and the wheels* | *Holds the axels on both ends with two holes, one for each wheel* |
| *15* | *Wheel* | *2* | *.96 thick, 2.9 D* | *Self-explanatory, the two wheels used for riding the board* | *Rubber* |  |  | *Semi-glossy, matte after wear* | *Under each side of the board, goes on the axel* | *Wear more on back wheel, has a ball bearing in the middle* |
| *16* | *Double-Sided Bolt* | *2* | *One side.62 D other .59 D, head/hexagon .86 edge to edge* | *Attaches Axel mount to the board on both sides* | *Steel* |  |  | *Glossy* | *Attaches to small bolt, small washer, large nut, large washer to keep the axel mount and wheel attached* |  |
| *17* | *Small Bolt* | *2* | *.825 total height, .2 head height, .31 shaft diameter* | *Holds the mount onto the large bolt* | *Steel* |  |  | *Glossy* | *Screws into one end of the large bolt to keep the axel mount in place* |  |

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| *Part#* | *Part Name* | *Qty* | *Dimensions* | *Function* | *Material* | *Density* | *Mass*  *or Weight* | *Texture  and Finish* | *Interaction with Other Parts* | *General Notes*  *(i.e.; wear, stress indicators)* |
| *18* | *Small Washer* | *2* | *.08 thick, .8 diameter, .16 middle hole radius* | *A washer for the small bolt* | *Steel* |  |  | *Glossy* | *Goes on the small bolt at the end of the large one* |  |
| *19* | *Large Nut* | *2* | *.92 from edge to edge, .57 diameter threaded hole in the middle* | *Nut for the Double-Sided Bolt(the large one)* | *Steel* |  |  | *Matte* | *Goes on the end of the Double-Sided Bolt to attach it to the board.* |  |
| *20* | *Large Washer* | *2* | *1.17 diameter, .26 ring width* | *The larger washer for the bolt that connects the axel mount to the board* | *Steel* |  |  | *Semi-Glossy* | *Goes on the bolt between the nut and the board on the inside* | *Is large* |