

Change Log

Part numbers/colours: Part 1: BLUE, Part 2: YELLOW, Part 3: GREEN, Part 4: RED

- 28/3/2016 (Matthew Boys)
 - Part 1: Added 15mm*1.5mm cut-out. Added 2.5*2.5mm blocks to strengthen pylons.
 - Part 2: Motor mounting holes: changed distance between hole from 18 to 17.5mm, Lowered holes to 5.8mm from top, Added cavity of 1mm depth and 3.2mm radius behind each hole.
 - Part 2: Change pylons platform thickness to 0.5mm thicker. Lengthened pylons of parts 1 and 3 by 0.5mm too.
 - Part 2: Central bumper switch holes moved 2mm towards centre.
 - Part 4: Wheel mounting holes spread to be 13.5mm apart.
 - o Bumper: Pushers thickened to 3mm thick
- 4/8/2015 (Matthew Boys)
 - Part 1: Changed to print on side so printing layer weakness doesn't effect pins which kept snapping off
 - Part 1,2,3,4: Changed all pins from cylinders to 50x50mm square prisms to match new Part 1
 - Part 1,2,4: Added some chamfer on the corners that experience most stress for stability and to reduce flex/wobble
- 13/7/2015 (Matthew Boys)
 - Bumper: arms breadth reduced from 45mm to 40mm to match physical version

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- Bumper: Inner thickness reduced from 2mm to 1.7mm
- Sensor: New part to match physical piece. Dimensions from http://www.switches-manufacturer.com/DM3-02P.htm
- Part 2: Centre central bump sensor screw holes so screws will not collide with part 4
- Part 2: Enlarge all bump sensor screw holes from 1.8mm to 2mm diameter
- Part 2: Remove notch from wall as no-longer needed
- 16/6/2015 (Matthew Boys)
 - o Part 2: Move screw holes for central bump sensors towards the centre axis by 3mm to
 - Part 2 & 3: Shaved 1mm from the wall the retracting bumper hits to allow more bumper movement. From both top and bottom pieces
 - Part 1: Reduced the pentagonal pin diameter from 4mm to 3.8mm to allow better fit into hole (was too tight)
 - Part 2: Adjusted motor wall cutout to be 6mm x 3mm with triangle above for printing stability and avoid collision with sensors.
 - Part 3: Extended the top bumper guide out by 7mm to reduce wobble of bumper.
- 7/6/2015 (Matthew Boys)
 - Part 2: Enlarged screw holes for all bump sensors from 1.5mm to 1.8mm diameter
 - Part 3: Cut edges of plate and bumper guide down to a maximum radius of 50mm to avoid hitting the bumper
 - Part 2: Moved screw holes of central two bump sensors back 2mm to allow more bumper movement
 - Part 2: Added cut-out in motor wall for wires from bump sensors
 - Part 4: Added wall between two wheel supports for more stability
 - Part 1 & 2: Moved support columns back 2mm to avoid bumper hitting edge
 - Part 1 & 2: Changed pins on support column from circles to pentagons (so they won't go on backwards by mistake)
- 25/5/2015 (Matthew Boys)
 - Part 1: Wider top screw holes to make screws fit better. Hole diameter changed from 2.5mm to 2.8mm
 - Part 4: Slightly deeper screw holes for attaching feet rollers
 - Part 2: Slightly wider motor support walls to avoid breakages near the screw holes
 - Part 2: Slightly thicker motor support walls to reduce change of breakage
- 18/5/2015 (Matthew Boys)
 - o All: Rebuild from scratch at 100x scale to reduce errors in files
 - All: Add rounded corners and screw holes
 - Part 1: Thicker support posts to reduce chance of breakages
- 23/3/2015 (Matthew Boys)
 - Part 3: Import existing file to SketchUp
 - All: Recreate eBug hardware in SketchUp
 - o All: Develop initial design in four types of pieces

Topic revision: r3 - 2016-05-20 - AhmetSekercioglu

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