

Parts list Bottle cutter (artmaker02)

Housing:

- 12x MDF laser cut panels, thickness: 6mm
- 1x Fan 120x120mm (see datasheet)
- 1x Ventilation holes 120x120mm
- 4x bolts M4, length: 40mm (for fan mounting)
- 1x Carbon filter (see datasheet)
- 5x L-irons, length: 40mm
- 20x Screws, length: 6mm diameter 3mm
- Wood glue
- Aluminium tape for safe space
- Aluminium tape for bottom floor
- 6x Rubber feet 30x25mm
- 6x screws for rubber feet, length: 20mm, diameter 3mm

Door:

- 2x MDF laser cut frame, thickness: 6mm
- 1x PMMA laser cut plexiglass thickness: 1.5mm
- 16x M3, length: 16mm bolts
- 1x piano hinge, length: 20mm
- 4x screws for fastening the piano hinge to the door, length: 12mm diameter 3mm
- 4x M4, Length: 12mm Bolts for attaching the piano hinge to machine
- 2x Magnets with diameter 4mm and thickness: 2mm (see datasheet)
- 1x bracket for lock 3d printed (see 3d printed files)
- 1x Magnet for bracket, length: 7mm diameter 4mm (see datasheet)
- 2x screws for lock clamp length: 15mm diameter 2.5mm
- 1x Reed contact (see datasheet)
- 1x Electric lock 12v (see datasheet)
- 1x Fastening bracket lock and reed contact (see 3d printed files)
- 2x screws for mounting bracket lock, length: 16mm diameter 2.5mm
- 1x Handle 3d printed (See 3d printed files)
- 1x screw for handle, length: 15mm diameter 2.5mm

Controls:

- 1x rotating laser cut wheel MDF, thickness: 6mm
- 1x Axle aluminium rod diameter 8mm, length: 80mm
- 1x Fixed for fixing disc on shaft
- 1x 3D printed mounting disc (see 3d printed files)
- 8x screws for 3d printed attachment disc, length: 12mm diameter 3mm
- 1x Handle woodturning
- 1x screw for handle, length: 60mm diameter 4mm
- 2x washers for the screw handle, thickness: 1.5mm diameter 12mm
- 1x Key switch (see datasheet)
- 1x Sliding Potentiometer (see datasheet)
- 1x Rotary switch 2 positions (see datasheet)
- 2x Arcade Push button green and red diameter 60mm with LED lighting
- 1x Emergency stop button (see datasheet)
- 1x Wooden block, length: 120mm, width 60mm, thickness: 32mm (see technical drawing)
- 1x DC motor (see datasheet)
- 2x toothed belt wheels GT2 (see datasheet)
- 1x GT2 300mm toothed belt (see datasheet)
- 2x Bearings (see datasheet)
- 1x Bearing housing (see 3d printed files)
- 4x screws for 3d printed bearing housing, length: 12mm, diameter 3mm

Cutting arm:

- 1x Block 3d printed (see 3d printed files)
- 1x Arm 3d printed (see 3d printed files)
- 1x Feeler1 3d printed (See 3d printed files)
- 1x Feeler2 3d printed (see 3d printed files)
- 1x limit switch (see datasheet)
- 1x Heated cutting element from pyrograph (see datasheet or product description + cutting point shape and cutting heat)
- 1x Servo motor (see datasheet)
- 1x aluminium block (see technical drawing)
- 1x Bolt M3, length: 5mm
- 1x spring (see datasheet)

- 1x Axle diameter 2.5mm, length: 30mm
- 2x screws for fixing servomotor (length: 10mm diameter: 2mm)
- 1x Servomotor attachment (see photo)
- 2x diameter: 1mm, length: 5mm screws, for fixing attachment servomotor to support cutting arm
- 1x support block cutting arm 3d print
- 2x 12mm diameter, length: 3mm screws on the cutting arm on aluminium block
- 1x Axis for the cutting arm support block, length: 27.5mm diameter 2mm
- 1x cover block 3d printed (see 3d printed files)
- 1x Cable chain 7x7mm, length: 720mm
- 1x Lead screw T8, length: 600mm (see data sheet)
- 1x Screw for lead screw T8 (See datasheet)
- 1x guide rod, length: 600mm diameter 8mm
- 1x Pillow block bearing (see datasheet)
- 2x Screws for fixation Pillow block bearing, length: 12mm diameter 3mm
- 2x Support for guide shaft 3d print
- 4x screws for fixing support blocks, length: 219mm diameter 4.2mm
- 1x coupling from the lead screw to the stepper motor 5-8mm
- 2x screws for attaching the cable chain, length: 12mm diameter 3mm
- Block for the limit switch in safe position, length: 60mm, width 40mm, thickness: 37mm
- 1x stepper motor unipolar (5 wires)
- 1x DC motor (5-12V) with gearbox (1-5 rpm)

Electronics:

- 5x Resistor 10K Ω 1 / 4W
- 1x Resistor 100K Ω 1 / 4W
- 5x Resistor 1K Ω 1 / 4W
- 2x Resistor 180 Ω 1 / 4W
- 5x Resistor 3K9 Ω 1 / 4W
- 3x Trimming potentiometer 10K linear
- 6x Flyback diodes
- 5x Mosfet STP16NF06L n-channel (60v 16A)
- 5x Transistor BC547B NPN (45v 100mA)
- 2x PIC16F88 (18pin microcontroller)
- 1x Relay 5v NO