## **Vodak32 Micro-Still Materials List / Cost Estimate**

Local currency exchange rate to USD 1.5

| Item   | Qty | Source     | Est. Cost | <b>Total Cost</b> |
|--|-----|------------|-----------|-------------------|
| main still parts                                       |     |            |           |                   |
| 25mm x 1.5m coppper pipe                               | 1   | local hw   | 33.00     | 33.00             |
| 1/2" x 3m copper tubing, annealed                      | 1   | local hw   | 33.00     | 33.00             |
| 1/2" x 34cm heads pipe                                 | 1   | local hw   | 6.00      | 6.00              |
| 1/2" copper fittings: 2 elbow, 2 Tees, 1/2"-1" adapter | 1   | local hw   | 12.00     | 12.00             |
| 500ml stainless steel bottle                           | 1   | aliexpress | 8.00      | 8.00              |
| 3mm solenoid valve, 12V                                | 2   | aliexpress | 2.39      | 4.77              |
| DS16B20 temperature sensors with cable                 | 6   | aliexpress | 1.86      | 11.14             |
| Teflon heater wire, 15 ohms/m, 250°C                   | 10  | aliexpress | 0.78      | 7.80              |
| 10L plastic keg (drinking water)                       | 1   | n/c        | 0.00      | 0.00              |
| silicone hose 8x10mm, 1m                               | 1   | aliexpress | 3.44      | 3.44              |
| silicone hose 3x5mm, 5m                                | 1   | aliexpress | 5.58      | 5.58              |
| MOSFET 4 channel IRF540 module                         | 1   | aliexpress | 3.05      | 3.05              |
| ESP32 WiFi CPU (DOIT Dev Kit, 30 pin)                  | 1   | aliexpress | 3.95      | 3.95              |
| LM2596 buck converter module                           | 1   | aliexpress | 2.00      | 2.00              |
| M6x1 – 4mm hose barbs, 5 pk                            | 2   | aliexpress | 1.01      | 2.01              |
| M8x1.25 – 10mm hose barbs, 5pk                         | 1   | aliexpress | 2.03      | 2.03              |
| Mini inline taps, aquarium type, 4mm barbs x10pcs      | 1   | ebay       | 5.10      | 5.10              |
| Resistors – 2.2k, 40k, 4.7k                            | 3   | n/c        | 0.00      | 0.00              |
| some insulation and aluminum foil, on hand             |     | n/c        | 0.00      | 0.00              |
| Subtotal   |     |            |           | 142.84            |
|  |     |            |           |                   |
| fermentation parts                                     |     |            |           |                   |
| 10L plastic keg (drinking water)                       | 3   | n/c        | 0.00      | 0.00              |
| 1L soda bottle (schweppes has nice shape)              | 2   | n/c        | 0.00      | 0.00              |
| MOSFET 4 channel IRF540 module                         | 1   | aliexpress | 3.05      | 3.05              |
| DS16B20 temperature sensors with cable                 | 2   | aliexpress | 1.86      | 3.71              |
| hose and barbs included in above parts                 | 1   | n/c        | 0.00      | 0.00              |
| connectors and wires to tie it all together            | 1   | n/c        | 0.00      | 0.00              |
| Subtotal   |     |            |           | 6.76              |
| TOTAL  |     |            |           | 149.60            |