## **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
5 core trailer cable, 2mm/0.5mm², 2m length	1	ebay	5.95	5.95
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				12.71
TOTAL				155.55