

## List of materials

Item	Quantity
Peristaltic pump (Intllab, flow rate of 450 ml/min)	2
Arduino UNO board	1
Raspberry Pi 1 B+ board	1
Custom Teflon caps	3
500-mil Schott bottles	3
Relay	2
20 cm long, 0.5 mm thick, 0.5 cm diameter stainless-steel cannulas	4
10 cm long, 0.5 mm thick, 0.5 cm diameter stainless-steel cannulas	4
0.22 $\mu$ m membrane filter	3
Aquarium air compressor (Maxxi Pro-5000)	1
Magnetic stirrers with heating ()	2
Surgical clamp	1
Silicon tubing (m)	3
Set of Arduino jumpers	1