

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202511077749 A

(19) INDIA

(22) Date of filing of Application :14/08/2025

(43) Publication Date : 05/09/2025

(54) Title of the invention : BLOOD EXTRACTION AND TESTING DEVICE

(51) International classification :A61B5/15, A61B5/151,
A61B5/153
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application
Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

A blood extraction and testing device, comprising an enclosure 101 having a removable lid 102 configured with it, a port 103 formed over the enclosure 101 to receive a finger for blood extraction, a microneedle assembly disposed in the housing 105, is located within the enclosure 101, a needle 106 extending upwards from the housing 105 via a linear actuator 108 to prick the finger, a plurality of receptacles 107 arranged radially in the housing 105 to receive the blood for testing, a sensing unit 109 is configured within each of the receptacles 107 to monitor biomarkers associated with the received blood, a conduit 110 attached with a piezoelectric suction pump 111 linking the needle 106 with the receptacles 107 to transfer the extracted blood, and a splitter unit 112 attached with the conduit 110 to facilitate collection of blood in one or more receptacles 107.

No. of Pages : 21 No. of Claims : 10