



IRIS MULTIPLEX DIAGNOSTICS

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PROBLEM STATEMENT

Military personnel deployed in tropical and remote environments cannot rapidly differentiate between life-threatening infectious diseases — malaria, dengue, leptospirosis, and influenza — without laboratory infrastructure. Delayed or incorrect diagnosis increases medical evacuation burden and reduces force readiness.

Results <1 HR. Anywhere in the world.

SOLUTIONS

RESEARCH

STAKEHOLDERS & FACTORS

STAKEHOLDERS:

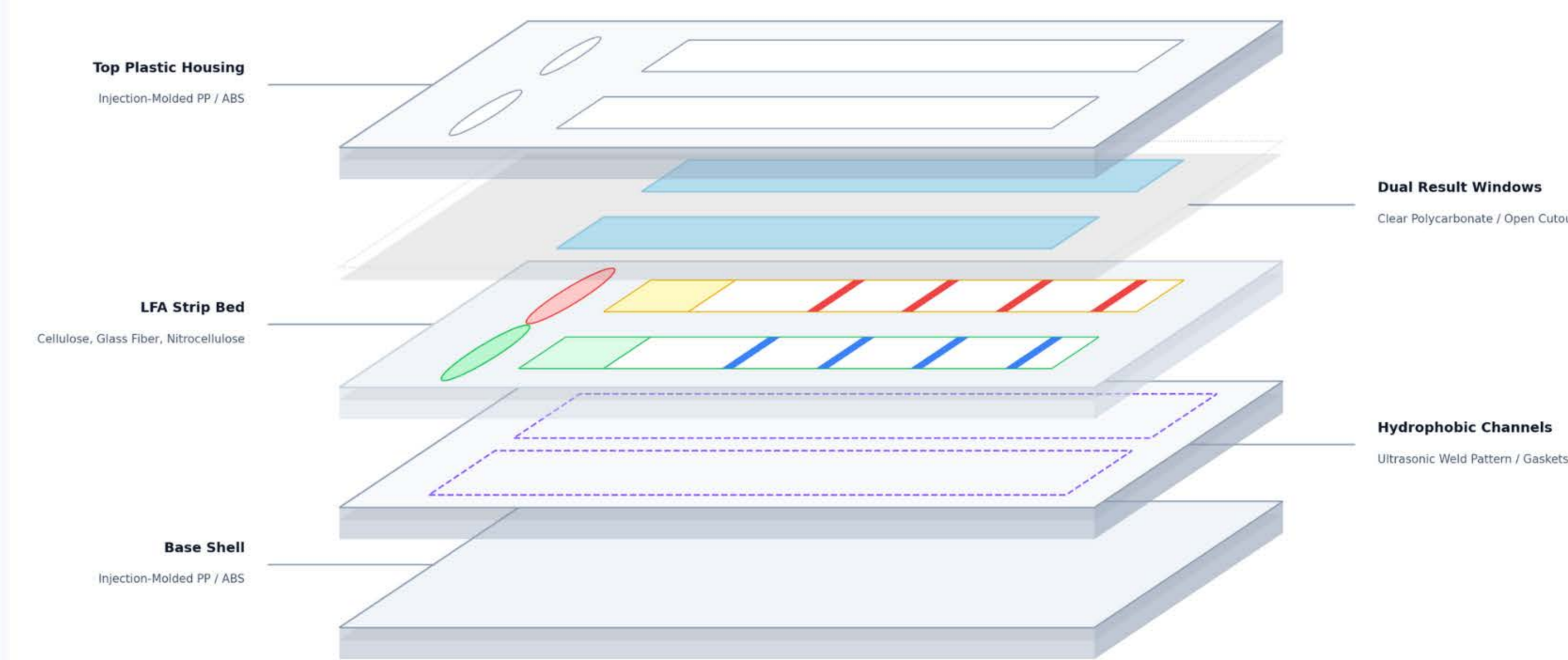
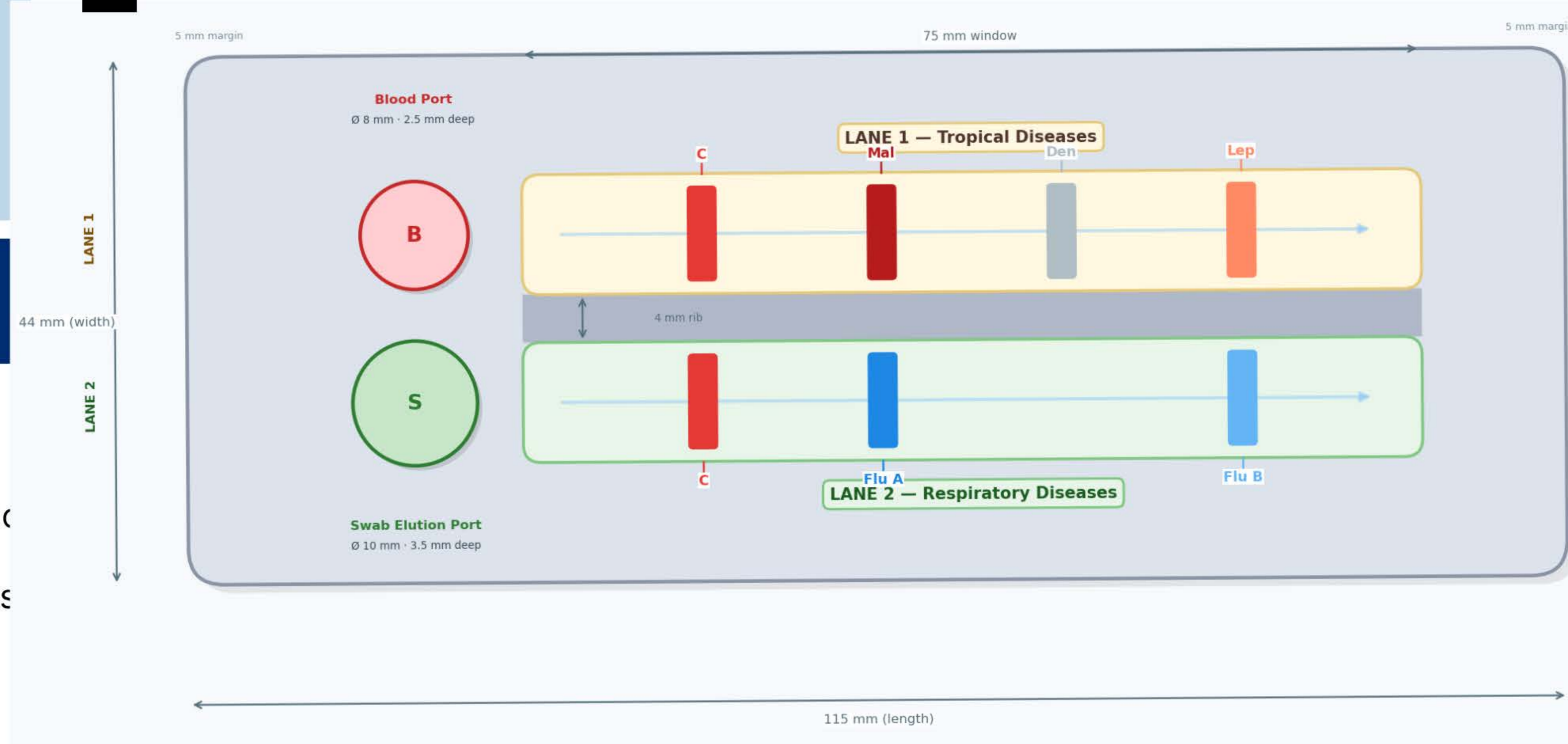
- Primary: NATO member state defense ministries, military medical commands, and allied force health services
- Secondary: humanitarian aid organizations disaster response
- End Users: military medics and field personnel

DESIGN REQUIREMENTS:

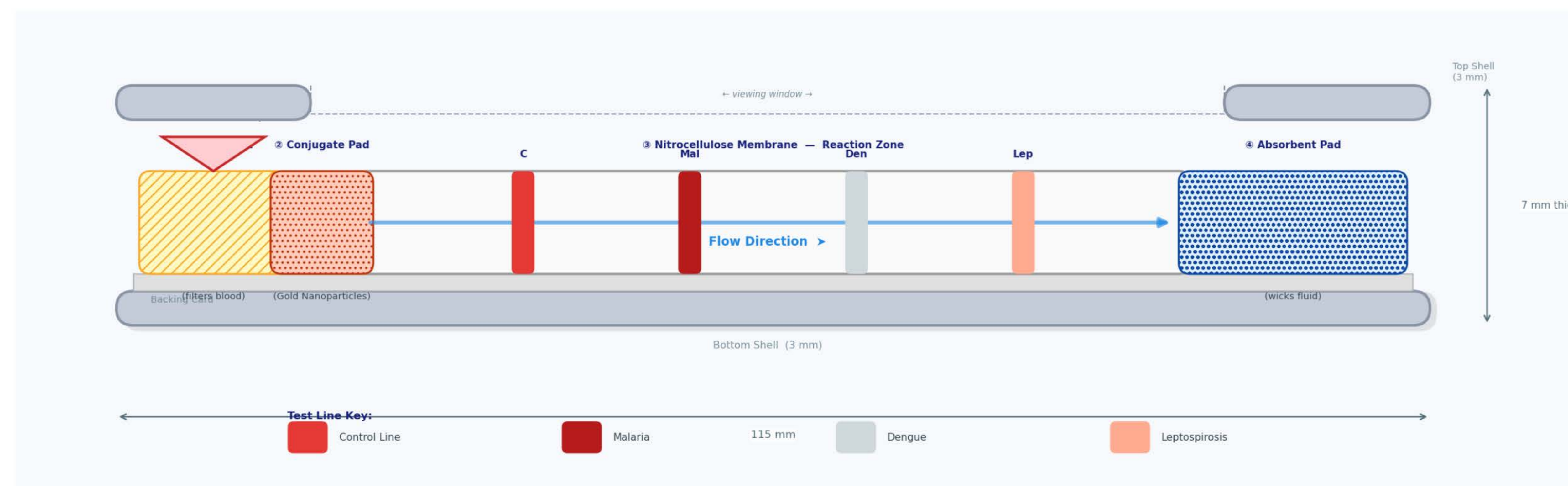
- Portability
- High sensitivity/specificity
- Result speed
- Field readiness
- Ease-of-use
- Equipment-free
- No Internet
- FDA clearance
- Military standards
- NATO regulations



1 Collect sample (blood or nasal swab)



2 Apply sample to IRIS cassette



- IRIS evaluated LFA, LAMP, RPA, and CRISPR technologies against cost, speed, portability, and training burden. LFA was selected for field reliability and low cost. Market research validated a B2G model through NSPA procurement and the DIANA accelerator.
- LFA technology selection
- Six-pathogen targeting
- B2G market validation
- Cost-per-cassette analysis

SOURCES:



3 Read visual result lines within 45 minutes

