

WHO

SYSCOM: MCSC
Sponsoring Program: Marine Corps Small Business Innovation Research

Transition Target: PM Test, Measurement and Diagnostic Equipment (TMDE); Expeditionary Medicine; Engineer Systems

TPOC: sbir.admin@usmc.mil

Other Transition Opportunities: Navy, Air Force, SOCOM, Coast Guard, DHS, public safety, medical, and civilian applications.

Notes: All commercialization and technology transitions need to contact TPOC: David Keeler david.keeler@usmc.mil



Flexible Lighting and Displays

WHAT

Operational Need and Improvement: (1) an improved "Electronic Paper Technology" to provide a laptop accessory, specifically a portable, flexible, external electronic Display Screen to provide a large clear full view of detailed schematics, drawings and pictures contained in technical publications and used by individual Marine Maintainers to view schematic diagrams, drawings, and pictures at the point of maintenance, (2) a smart wearable devices to display maps and videos etc. to warfighters and others such as medical personnel or infantry, and (3) an intelligent Light Emitting Diode (LED) lighting system on flexible substrates that have small form factor, low weight, low power consumption, and low heat output, and to demonstrate the feasibility of the concepts in meeting Marine Corps needs and will establish that the concepts can be developed into a useful product intended for use in numerous operational environments.

Specifications Required: Portable display that can be stored in a compact, rugged configuration and then capable of expanding to a large screen size during use. Sizes: 5", 8", 14", 21". Resolution: 1440x1920. Power: 2-5 W (active). Weight: <100g for 5" wearable device, <1000 g for 14" rollable device, <2000 g for 21" rollable device (including package, electronics and frame)
 Light Emitting Diode (LED) lighting system on flexible substrates that have small form factor, low weight, low power consumption, and low heat output.

Technology Developed: Wearable touchscreen smart display with sizes of 5", 8".
 Rollable touchscreen smart display with sizes of 8", 14" and 21".
 Intelligent flexible warm organic light-emitting diode lighting system with white, red, and green color working at 0 and 40 Celsius degrees.

Warfighter Value: a wearable touchscreen smart device for communication, information. a intelligent white, red and green Organic Light Emitting Diode (LED) lighting system on flexible substrates that have small form factor, low weight, low power consumption, and low heat output, to be easily installed in field. The light output can be automatic adjustable following the environmental changes.

WHEN

Contract Number: M67854-24-C-6520 **Ending on:** Nov 06, 2025

Milestone	Risk Level	Measure of Success	Ending TRL	Date
Encapsulate Flexible OLEDs and integrate them with switchers	Medium	Field test	6	1st QTR FY26
5 inch displays on sleeves with smart phone functions in large scale with the ability up to 10,000 pieces per year	Medium	Field Test	5	2nd QTR FY26
produce 10 inch rollable displays in frames with smart phone functions in large scale with the ability up to 1,000 pieces per year	Medium	Field Test	5	4th QTR FY26
design and produce 24 inch rollable displays in frames with smart phone functions	High	Field Test	2	1st QTR FY27

HOW

Projected Business Model: Licensing of Technology, or Manufacturing with Partners
Company Objectives: To innovate scalable and high throughput printing technologies for low cost, high performance optoelectronic devices, to democratize optoelectronic devices for every person
Potential Commercial Applications: Flexible lamps for special applications like hospitals. Arm Phone for Athletes, Rollable displays for small space storage such as submarine, aircraft, space stations and so on.