



Obtaining a usable x-ray image means that the technician must align the x-ray beam, collimator, and target properly, which often means taking several test radiographs, resulting in lost time and a waste of materials. The Leha'ir system uses a focused, visible light to indicate the spread of an x-ray beam. The light assists in aligning the x-ray generator with the target to achieve the required radiographic coverage. An indication system and electrical lockouts are used on the x-ray generator to protect the light from the harmful x-rays and ensure that the light beam is retracted prior to exposing the film.

DETECTOR / SENSOR / IMAGING

Features

- Simple and safe visual alignment method
- Hinged or sliding framed that is mounted to the face of the x-ray generator
- High-intensity LED light, which illuminates the area of the projected radiation beam
- An interlock switch prevents the x-ray generator from operating while the operator is aligning

Benefits

- Aids technician in radiographic setup to ensure coverage with significantly reduced rework
- Reduces technician time
- Reduces film and chemical usage for film radiography
- Reduces unnecessary exposure to digital panels for digital radiography

Applications

- X-ray radiography
- Dental offices
- Isotope radiography
- Medical offices
- Laboratories

Patents & Awards

- U.S. Patent Application No. 15/096,655

Inventors

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Technology Readiness Level (1–9)



Concept tested in relevant environment.

Partnering Opportunities

Y-12 is seeking an industry partner to fully commercialize this technology.

If you would like more information, please contact the Office of Technology Commercialization and Partnerships:
 OTCP@y12.doe.gov
 (865) 241-5981
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