# Third Laureate
# Research & Development

**Project title:** Design and production of multipurpose cooled thermal cameras

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**Abstract:**

According to the physics laws, all objects with temperature above zero Kelvin emit electromagnetic radiation. This radiation depends on the object's temperature and is emitted at certain wavelengths bands. Terrestrial temperatures are radiated at INFRARED wavelengths region which are not sensed by human eyes. A thermal camera converts these electromagnetic radiations into visible images for human eyes. Therefore, a thermal camera can be used for diverse applications at night, during day light and in bad climatic conditions (haze, smoke, and aerosol).

In this project, three types of MWIR cooled thermal cameras with high sensitivity and resolution has been designed and produced. Three types of cooled thermal cameras are included: long range, medium range and handheld.