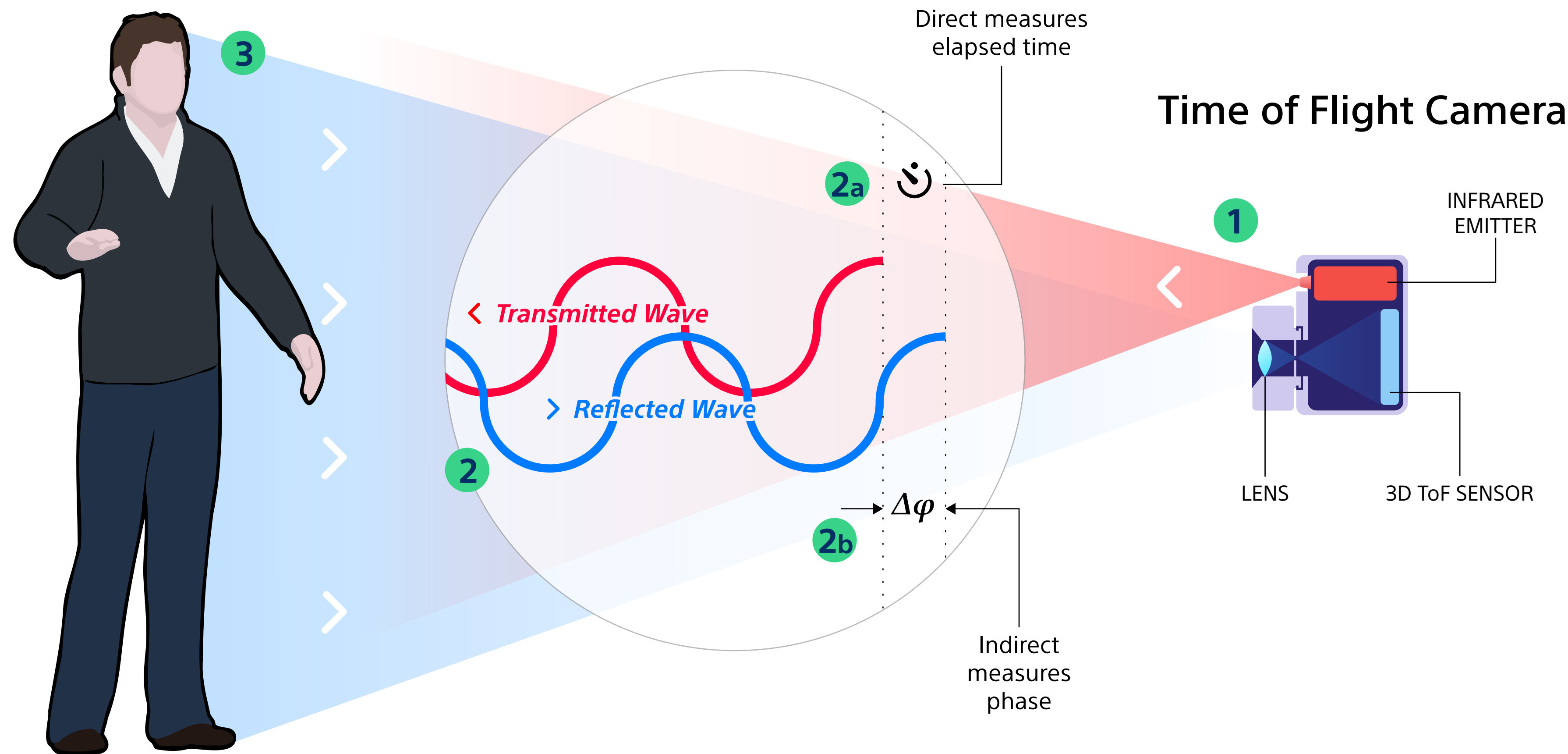


# Technology: What is Time of Flight (ToF)?

## Optical Time-of-Flight (ToF)

This sensing technology captures the absolute position, movement and shape of environmental elements in 3D.

1. Infrared illuminates a scene.
2. This light reflects off the scene to be recorded by a ToF camera and measures the elapsed time (direct Time of Flight) or phase-shift (indirect Time of Flight) from the objects in the scene.
3. As the speed at which light travels is known, the distance can then be calculated which gives us the name 'Time of Flight'.
4. From this data a 3D point cloud of the objects and environment is built.
5. Through the application of smart algorithms and software libraries, a wide variety of applications can be created.



- Time of Flight is typified by having a good range combined with a high field of view and sensor resolution
- Excellent distance accuracy and object classification can be obtained with this technology.