

Title (en)
DEVICE FOR SCANNING SURROUNDINGS

Title (de)
VORRICHTUNG ZUR ABTASTUNG EINER SZENE

Title (fr)
DISPOSITIF DE BALAYAGE PAR RAYON D'UNE SCENE

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Application
EP 02796185 A 20020809

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Abstract (en)
[origin: WO03019226A2] A device for scanning surroundings conventionally comprises a transmitter piece, for the transmission and deflection of a scanning beam for scanning the surroundings and a receiver piece for detecting a reflected beam arising from the scanning beam. The horizontal and vertical deflection of the scanning beam, emitted in the form of a light beam, is achieved by means of two plane parallel prisms, which rotate about rotation axes perpendicular to each other, and produce a displacement of the optical axis of the transmitter piece, by refraction of the scanning beam. According to the invention, the novel device should be producible in an economical and space-saving manner. Said novel device comprises a rotating prism with several lateral surfaces, inclined at various inclination angles to the rotation axis. During the scanning process the scanning beam is refracted on entering and exiting the prism at one of the lateral surfaces and deflected at one of the lateral surfaces within the prism, by total reflection. The scanning beam is moved across the situation in several lines, as a result of the differing inclination angles of the lateral surfaces. The invention further relates to laser radar for an object recognition system or for distance regulation systems on motor vehicles.

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G01S 7/481; G01S 17/93; G02B 26/10

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Citation (search report)
See references of WO 03019226A2

Citation (examination)
• JP H0921872 A 19970121 - NIKON CORP
• US 5309212 A 19940503 - CLARK R ROBERT [US]

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