

ABSTRACT**Laser Pointing System**

The Invention relates to a system for pointing a laser beam, characterized in that it comprises:

- at least one processing laser source (S1) for emitting a processing laser beam (FS1, FS2) toward a target (C1), said processing beam (FS1) being transmitted through a nonreflective zone (z1) of a first mirror (M1), said mirror (M1) allowing return to an imaging system (CA) receiving an illumination beam (FR2) reflected by the target, said low reflection coefficient zone (z1) of the first mirror (M1) inducing a shadow zone (ZA) toward the imaging system (CA);
- a second mirror (M2) receiving said processing beam and intended to orient it and reflect it toward the target;
- an illumination source (E1) for illuminating said target with the aid of the illumination beam (FE1),
- a first control circuit (CC) for controlling the orientation of said pointing system toward the target,
- a second control circuit (CT) for angularly displacing the processing beam (FS1) by a determined angle, measuring the distance (D2) separating the position of a zone (P1) of the target from the position of the spot of the processing beam on the basis of an image obtained by the imaging system, then displacing the illumination beam in the opposite sense by an angle corresponding to said measured distance (D2), the angular displacement of the processing beam having an amplitude such that the measurement of the position of the target is not perturbed by the shadow zone.

Application: Laser imaging systems

FIGURE FOR THE ABSTRACT: FIGURE 1

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