

HUMANITARIAN DEMINING ROBOT GRYPHON

– CURRENT STATUS AND AN OBJECTIVE EVALUATION

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Abstract- Mechanical systems or robots to assist landmine detection are expected to greatly improve quality of humanitarian demining tasks. These new systems could provide: i) safer operation; ii) advanced methods for automatic target recognition and discrimination; iii) consistent performance with less influence of “human-factors”; iv) better detection performance, i.e., higher probability of detection (POD) and lower false alarm rate (FAR); among others. However, despite many research/development efforts around the world, no practical landmine detection robot has yet achieved maturity for practical use. Nonetheless, the humanitarian demining robot Gryphon, which current status of development is described in detail, is close to meet the requirements for practical use. This paper analyses the results from latest on-site tests underwent by Gryphon in Croatia (2006, 2007) and Cambodia (2006), to make a critical and objective evaluation of its validity, and clarify the points that still require further development in order to realize a practical humanitarian demining robot.