Title: Relative Positioning System Using Inter-Robot Ultrasonic Localization Turret

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Abstract: This paper focuses on the problem of relative localization system in collaborative environments based on our previous proposed relative localization methodology. We propose a low cost hardware module to achieve a relative positioning system used in research scope to develop some methods, techniques and algorithms in Multi Mobile Autonomous Robotic Systems (2MARS) applications. We discuss about existing hardware modules in literature by showing some constraints. We present some important design aspects of our proposed relative positioning system using the low cost hardware module: Inter-Robot Ultrasonic Localization Turret (IRULT).

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