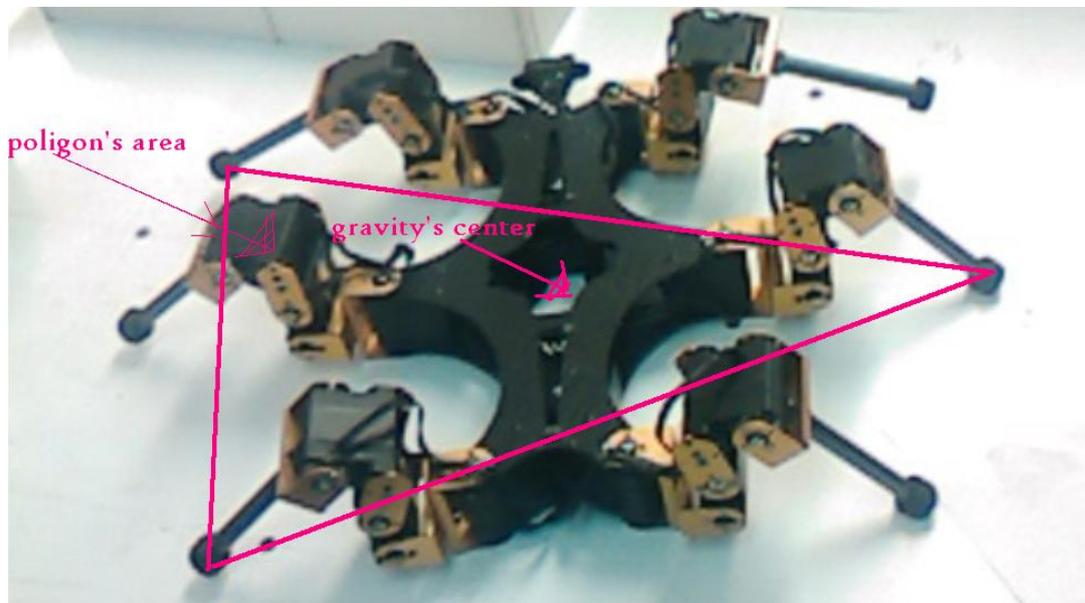


*Abstract*—In this paper we present, **Pilarica**, an autonomous hexapod robot, that can be controlled by either programmable routes or by radio frequency. The robot is equipped with various tactile sensors that facilitate the interaction of the robot with its environment. **Pilarica** has demonstrated to be faster than other documented hexapod vehicles, this mainly because **Pilarica**, through a good control over the speed of the motor, enables diverse walking styles. **Pilarica** also makes use of multi-level control programming, and introduces improvements to what the state of the art had presented, in particular the work done in 2009 by CARBONE G.1, et al. [10]

**Keywords**- *Embedded System, VHDL, RF, Human Activity Recognition, Histogram of Oriented Gradients*



Condition to maintain the equilibrium.