Robots started in the factories by the need of taking the human repetitive tasks. Now, robots can be found in any domain, like medical, shopping, education, military, mining, research and so on.

According to Harvard University, the most robots design which are designed today, are designed to work by themselves, not working together in a team. [2]

The need of creating robots that work together in a team, take the robots industry to another level, which can allow the realization of more complex and harder task. According to researchers at Carnegie Mellon University, it is easier to build multiple robots for multiple tasks than one robot that can do everything. [3] A team of robots would also be more robust when a robots breaks, because it can be easily changed without affecting the other members of the team. [3]

Swarm robotics is an approach to the coordination of multiple robots as a system which consist of large number of mostly simple physical robots. [1] This robots reproduce collective behavior of animals in order to realize a task by distributing actions, for example they can reproduce the ants behavior.

[1] – *Swarm robotics* - <https://en.wikipedia.org/wiki/Swarm_robotics>

[2] – *Programmable Robots Swarms -* <https://wyss.harvard.edu/technology/programmable-robot-swarms/>

[3] – *Robots that communicate with each other* - <https://daily.jstor.org/robots-that-communicate-with-each-other/>