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| **Application Scenario**  Coordination between the rescue bots | May June 10,2020 | **AS1** | Page 1 |
| **Description of the partial development task AS2:**  When there is a condition such that one rescue bot is deployed, and the robot is not capable of mitigating the risk, there arises a need to work in coordination among different bots deployed to accomplish the rescue operation. The limitation can be in terms of energy, distance to travel, whether its a day or a night operation. So, a coordination mechanism is designed and decision making capacity is included in each of the robots. If the bots require assistance it would call for the other robot and run in convoy mode. | | | |
| **Principle solution for AS1:**  For the bot to run in the convoy mode. The master makes the decision based on an AI algorithm. If the slave is called the bot acts as a master and controls the incoming robots as slaves. The slaves join the master in a formation in the left and right side of the master. | | | |