Video explanation

The video IJARS_2012.mov shows a Matlab Simulation where a team of 6 aerial mobile robots (quad-rotors) has to patrol an area with obstacles, maximizing the minimal frequency in which any position is monitored. The whole team computes the same path to cover the area. Each robot starts from random positions. The video is acelerated 15x.

Next to the perspective view, three graphs indicates the position along the path, the elapsed time (maximum and average) and the info value of each robot.

The aerial robot are assumed heterogeneous since they move with different maximum speeds:

Green robot --> 0.25 m/s
Blue robot --> 0.25 m/s
Yellow robot --> 0.4 m/s
Black robot --> 0.5 m/s
Red robot --> 0.5 m/s
Magenta robot --> 0.4 m/s