imports sequence toolkit::\* set toolkit::\* relation\_toolkit::\* **♥** ObstacleDetector (i) IEvents (i) IObstacle scan: Seq(real) obstacle: Direction scan: Seq(real) obstacle: Direction DetectorFSM X data: Seg(real) T SCAN THRESHOLD: real (i) IEvents (i) IObstacle scan?data Idle [min(ran(extract(union([331,359], [0,30]), data)))<SCAN THRESHOLD]/obstacle!Direction::front [min(ran(extract([31,90], data)))<SCAN\_THRESHOLD]/obstacle!Direction::left [min(ran(extract([271,330], data)))<SCAN\_THRESHOLD]/obstacle!Direction::right [not (min(ran(extract(union([331,359], [0,30]), data)))<SCAN\_THRESHOLD\/min(ran(extract([31,90],

data)))<SCAN THRESHOLD\/min(ran(extract([271,330], data)))<SCAN THRESHOLD)]