## Astar - startPoint:int Layoutnodes - endpoint:int - nodeIndex:int - mapColumn:int - parentIndex:int - mapRow:int - rowIndex:int - openList : std::list<Layoutnodes> - columnIndex:int - closedList : std::list<Layoutnodes> Мар - heuristicCost:double - nodeList : std::vector<Layoutnodes> - pathCost:double - neighbourNodes:vector<double> - currentMap:std::vector<int> - totalCost:double - path : std::list<Layoutnodes> - column:int - drawing: cv::Mat - row:int + Layoutnodes() moveDirection:int[] + setNodeIndex(int, int, int):void + Astar() + setStartPoint(int):void + setParentIndex(int):void + Map() + getParentIndex(void):int + setEndPoint(int):void + displayMap(void):void + calcPathCost(int):void + setHeuristicCost(double):void + storeMap(std::vector<int>):void + calcHeuristicCost(int, + setPathCost(double):void + loadMap(string):void + setTotalCost(void):void Layoutnodes):void + getMap(void):std::vector<int> + setCost(double):void + createNodeList(Map, int, int):bool + deleteMap(void):void + output(void):void + planPath(void):int + returnColumn(void):int + getCost(void):double + identifyNode(int, int):int + returnRow(void):int + getRowIndex(void):int + inOpenList(int):bool + setColumn(int):void + inClosedList(int):bool + getColumnIndex(void):int + setRow(int):void + getIndex(void):int + displayMap(void): cv::Mat + returnDirection(void):int\* + double returnHCost(void):double + ~Astar() + ~Map() + ~Layoutnodes()