HumanDetection

- current_frame: cv::Mat
- human_bounding_boxes: vector<cv::Rect>
 detection_confidence_threshold: double
- preprocess_frame()
- detect_humans()
- + HumanDetection(confidence_threshold: double)
- + set_current_frame(frame: cv::Mat)
- + process_frame()
- + get_human_bounding_boxes(): vector<cv::Rect>

HumanAvoidance

- avoidance_threshold: double
- is_human_detected: bool
- human positions: vector<double, double>
- + check_avoidance() + HumanAvoidance(threshold: double)
- + update_human_positions(positions: vector<pair<double, double>>)
- + is_avoidance_required(): bool
- + update_threshold(threshold: double)

RobotController

- current_position: pair<double, double>
- target_position: pair<double, double>
 max_speed: double
- + adjust_path(is_avoidance_required: bool)
- + RobotController(start_position: pair<double, double>, max_speed: double)
- + set_target_position(target: pair<double, double>)
 + move_robot(is_avoidance_required: bool): pair<double, double>