

AdeptVision sAVI Guidance



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The AdeptVision sAVI Guidance option allows you to add vision inspection and/or vision guidance to any Adept robot, Adept SmartModules or Adept SmartMotion system. Interfacing motion and vision is simple since the vision instructions are completely integrated into V+ and AIM MotionWare. Adept's camera calibration utility supports any camera mounting configuration and compensates for perspective distortion. Adept pioneered vision-guided conveyor-belt tracking in the early 80's, and today remains the leader in this application segment. Vision guidance is used for applications such as printed circuit board assembly, vision-based part feeding and vision-guided conveyor tracking.

Advantages

•Recognizing randomly oriented parts

ObjectFinder 2000 was developed for the application of locating randomly oriented parts for pickup or sorting by the robot or as a base for further part relative inspection. The ObjectFinder 2000 can locate an object through 360° of rotation.

Advantages (continued)

•Part relative inspections

After locating a randomly oriented part, an inspection may be performed on the part relative to the found orientation of the part. This additional inspection allows the robot system to accept or reject a part before acquiring or assembling the part.

•Continuously moving conveyors

With the vision guidance option, an "upstream" mounted camera can identify and queue parts moving down the conveyor. As the parts enter the robot workspace, the robot can move to pick the parts without stopping the conveyor.

•"On the Fly" imaging and object refinement

With an integrated motion and vision platform, Adept provides low latency between robot positioning and image acquisition. The tight integration of motion and vision means that it is possible for the robot to fly over a camera, take a picture and record the mechanism position at the instant of the image. This provides the most accurate refinement of parts held in the robot gripper without interrupting or slowing the robot motion.

•Flexible feeding

Adept invented vision-based flexible feeding. Only Adept brings the software, vision, robot and feeder components together that are required to identify, sort and queue parts in flexible feeding applications.

•Camera calibration utility

Vision calibration utility allows the setup and calibration of any camera mounting, and any type of robot. This includes robot-mounted cameras, downward looking area-mounted cameras, upward looking cameras for gripper refinement and side looking cameras.

•Requires

Adept SmartController CX
AdeptWindows w/Ethernet

•Includes

sAVI Vision Board
Camera calibration target hardware
2 Camera breakout cable
User Guide
Licenses

•Provided separately

AIM MotionWare software
Robot specific camera mounting bracket
Vision/Conveyor Calibration kit
Camera Cable

Specifications subject to change without notice.