TX9Perception Module

Sensor (Camera)	Robot

Robot column:

(start)

Load Configuration for the Neural Network

→ Get Live video frames

Check image/video format compatibility

[Not Compatible] → Print "Incompatible format"

[Compatible] → Pass the frame through Neural Network

Check for humans in frame

[No Humans] →

[Humans] →

Check if confidence is above threshold

[No] →

[Yes] → Remove overlapping boxes

Label detected humans

Calculate distance using height

Convert coordinates from camera frame to robot frame

Output video frame with human highlighted

Output location information with label

Next Frame

Is next frame available?

[Next frame available]

[Not available]

(end)