**RGB-D Sensor**

color image and point cloud

patches for each head region

color image and point cloud

patches for each head region

color image,

point cloud

detection results

(coordinates, bounding box, label probabilities)

**Head Detector**

Haar detector on  
depth images

**Face Detector**

Haar detector on  
color images,  
 feasibility checks

**Face Identification**

illumination correction,

head pose correction,

Fisherfaces,

SVM / Nearest Neighbor

**Detection Tracker**

detection tracking over multiple frames using the Hungarian method for assignment and HMM for label stability

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illumination correction,

head pose correction,

Eigenfaces,

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