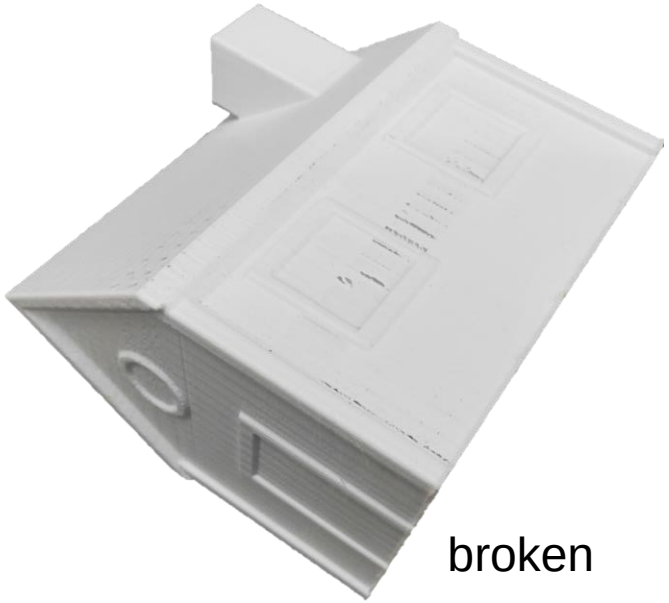
Nuclear Disaster Strain Robot

電機09 張博凱

電機09 李聖誠

場景介紹

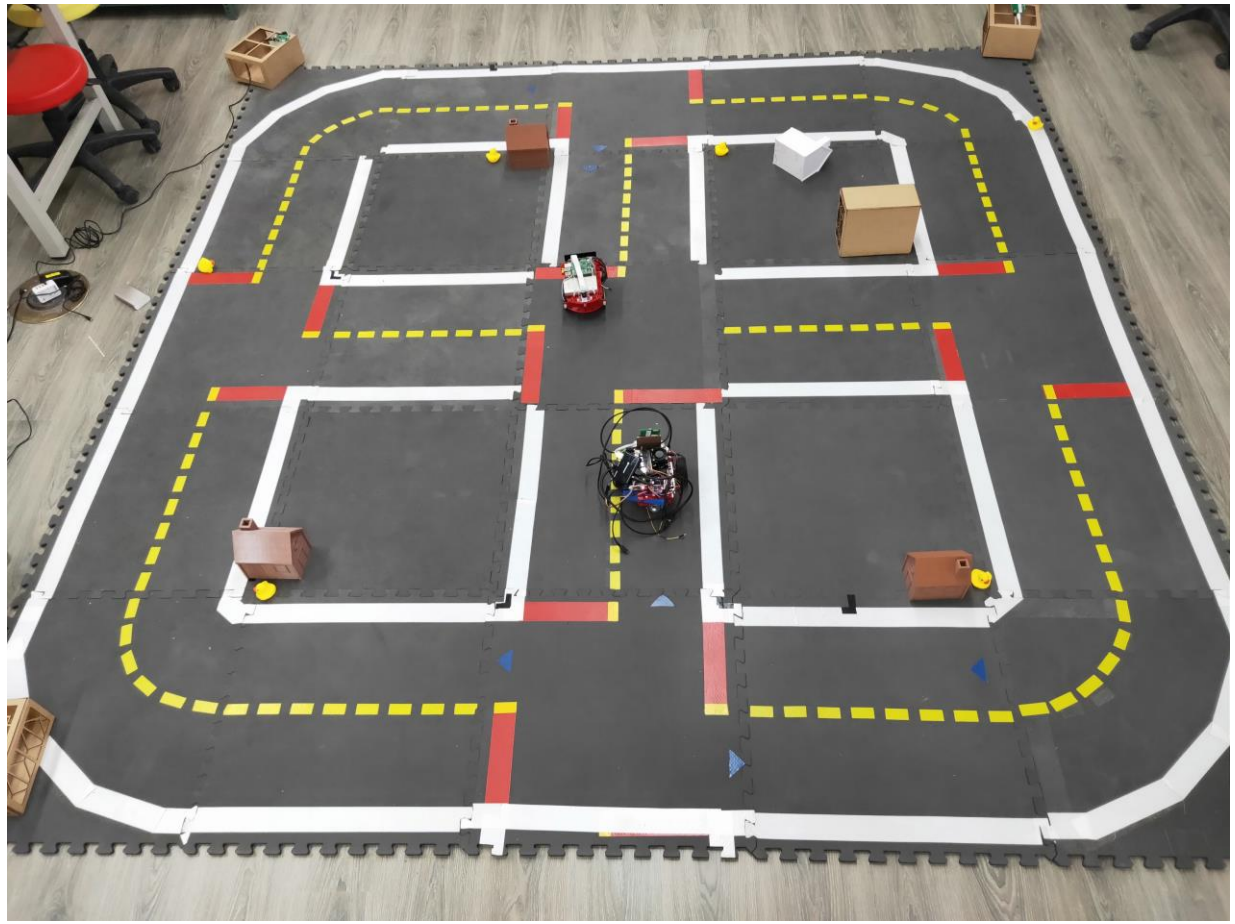


broken

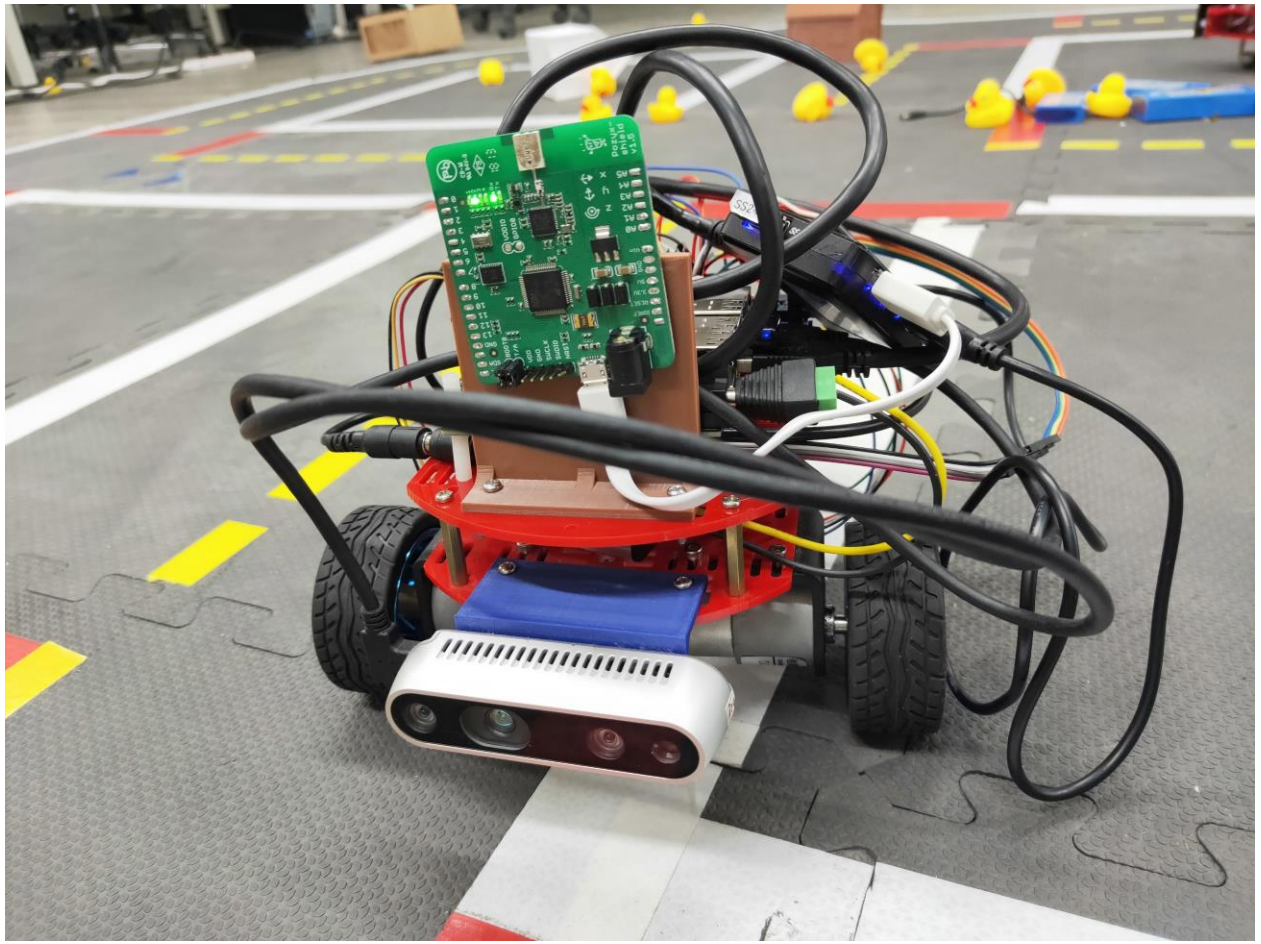
house

duck

duckie_car



Robot



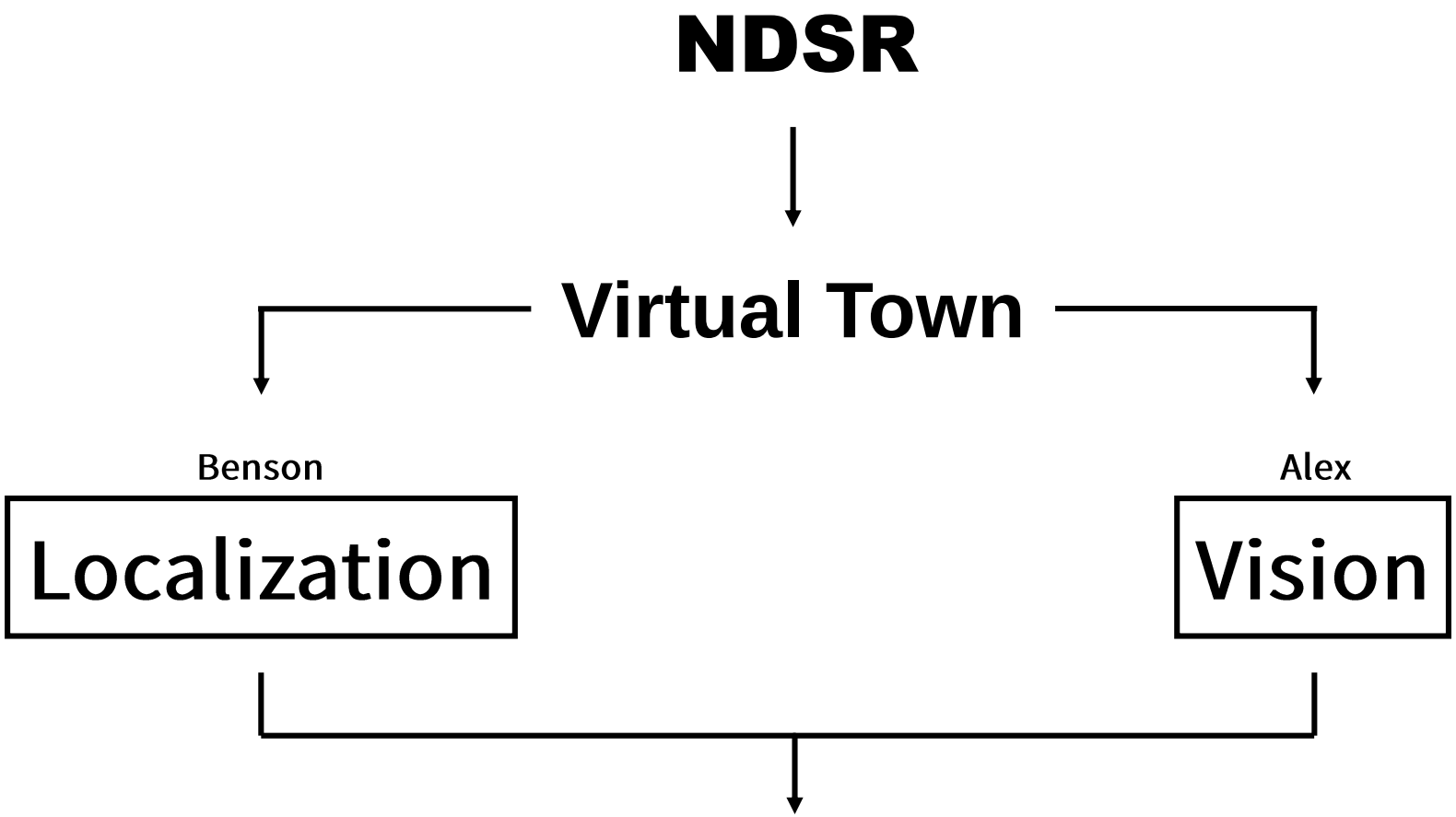
ROS

PyTorch

intel

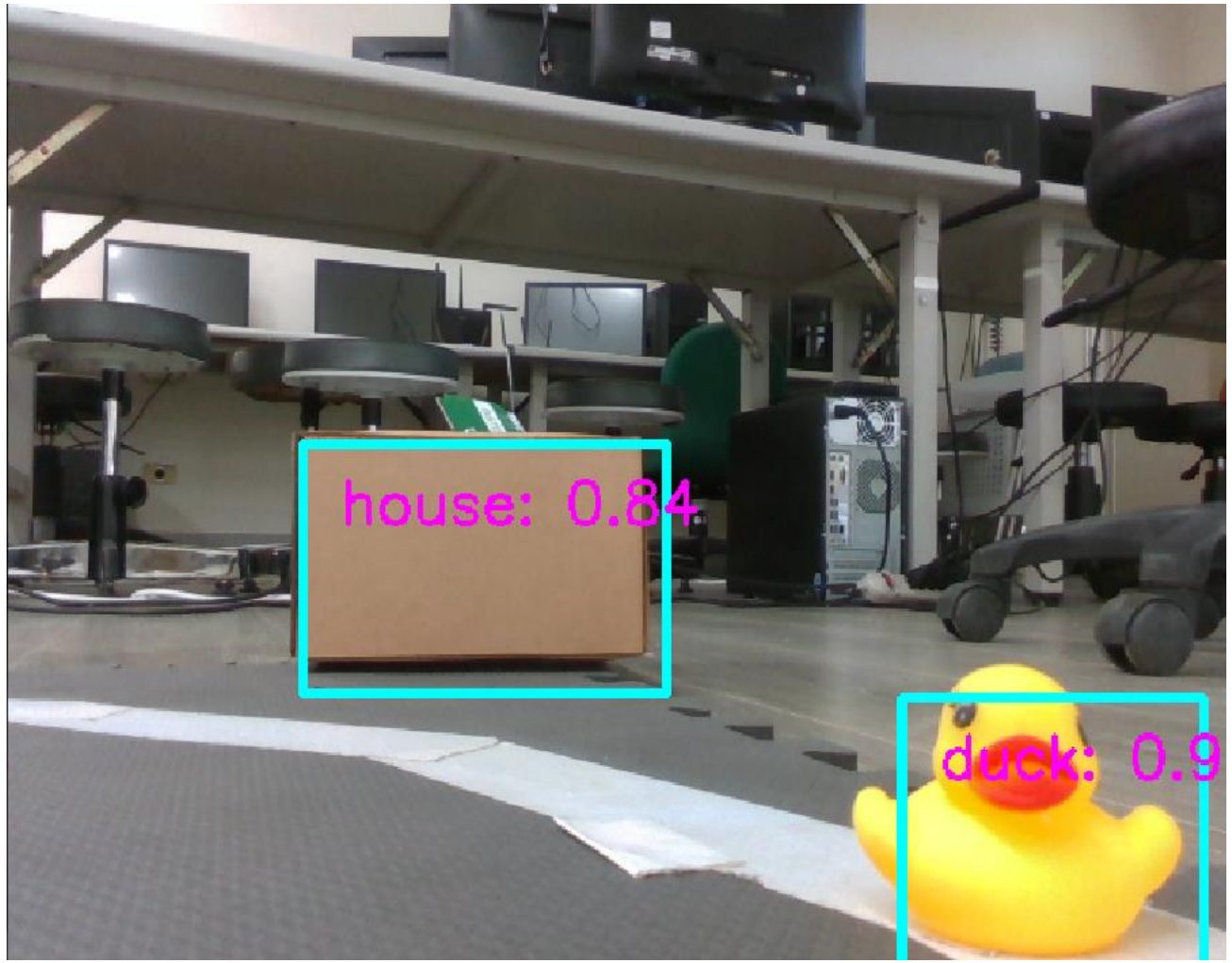
REALSENSE™ TECHNOLOGY

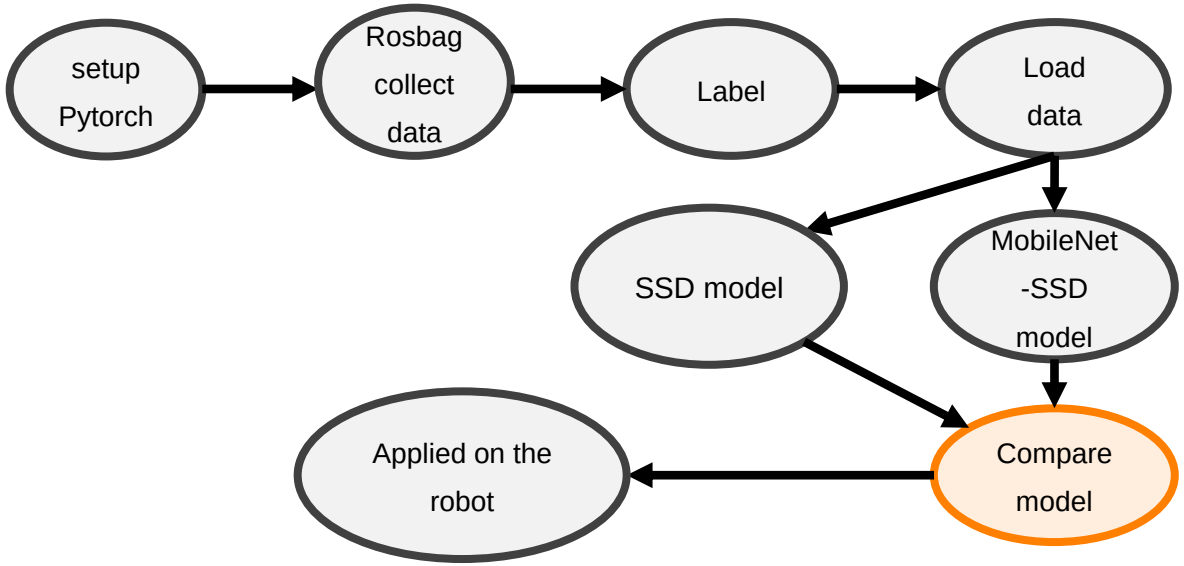
Demo

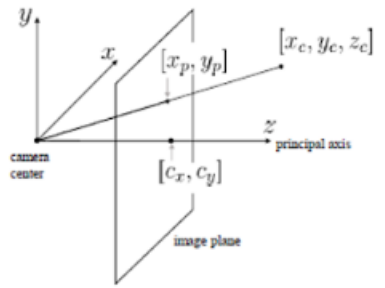

NDSR
Virtual Town
Benson
Localization
Alex
Vision
Integration
Run the bot in town

Vision

MobileNet SSD





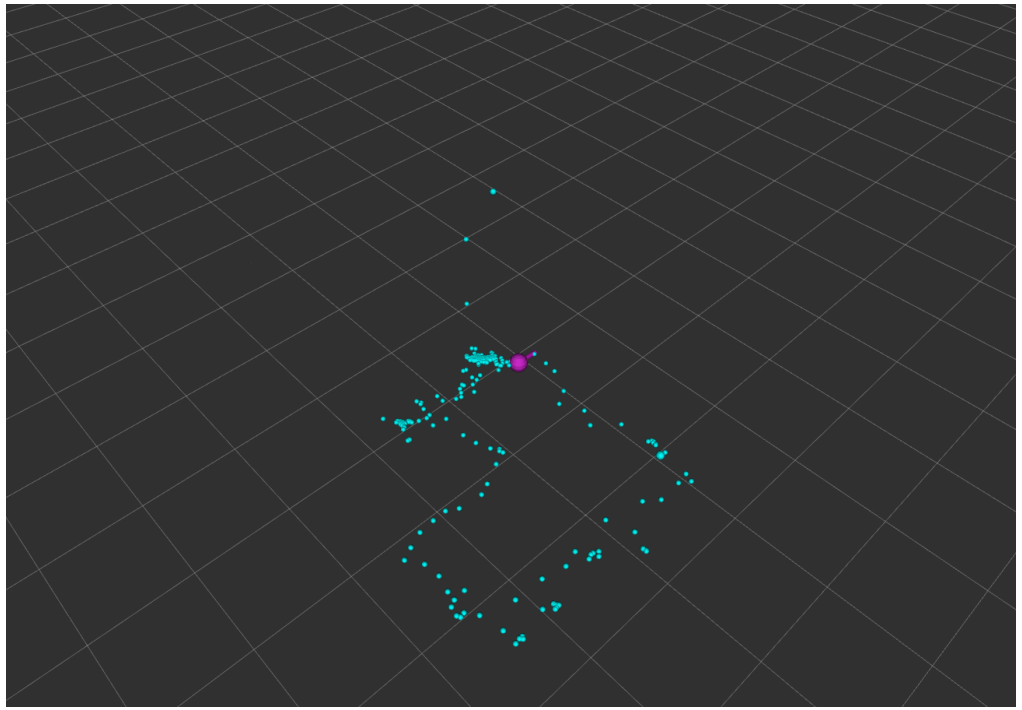


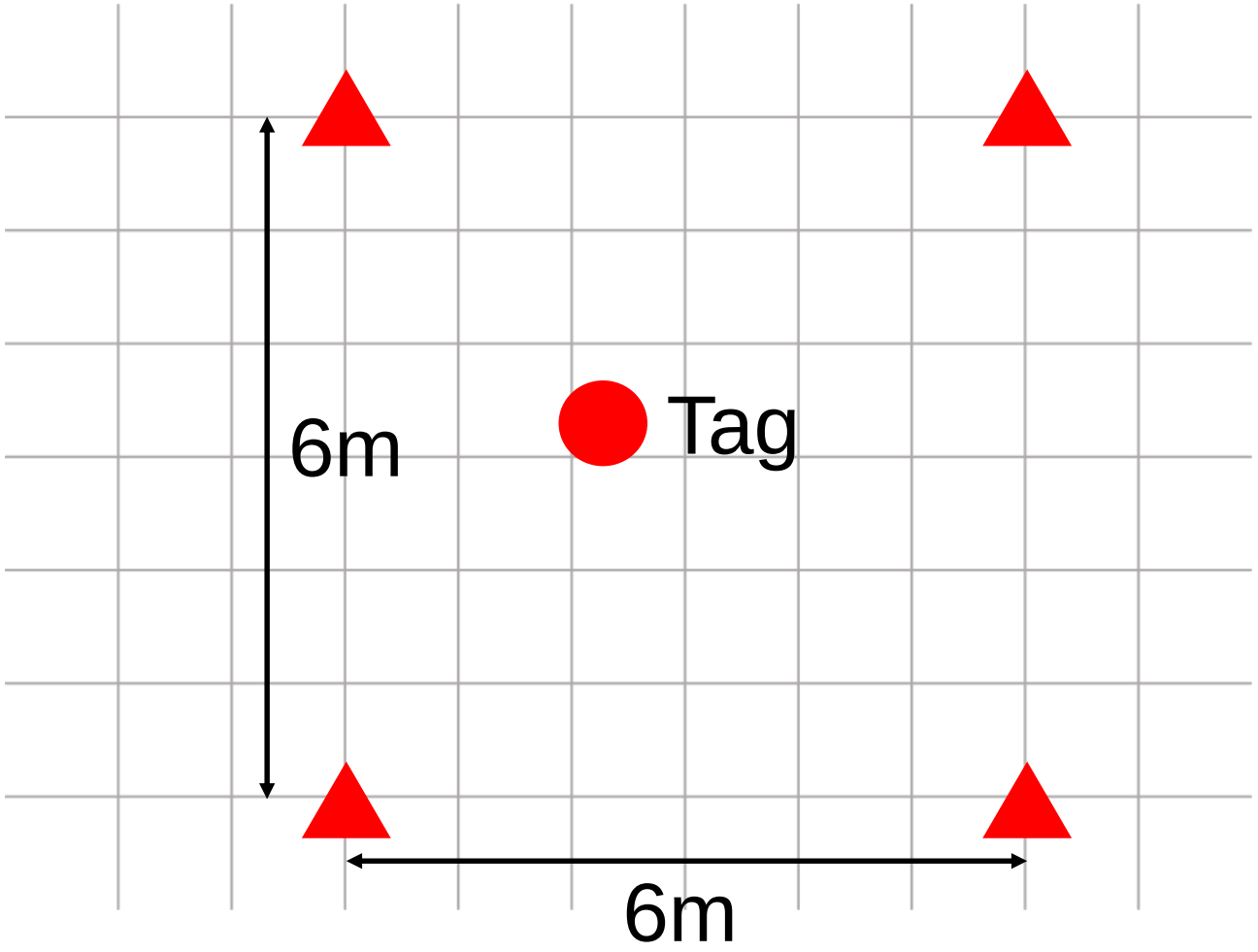
Pin hole projection illustration.

$$\begin{bmatrix} x_p \\ y_p \\ 1 \end{bmatrix} = K \begin{bmatrix} x_c/z_c \\ y_c/z_c \\ 1 \end{bmatrix} \qquad \mathbf{K} = \begin{bmatrix} f_x & 0 & c_x \\ 0 & f_y & c_y \\ 0 & 0 & 1 \end{bmatrix}$$

Transform matrix

Localization
UWB





$$T_{obj} = T_{veh} \cdot T_{cam}$$

THANKYOU