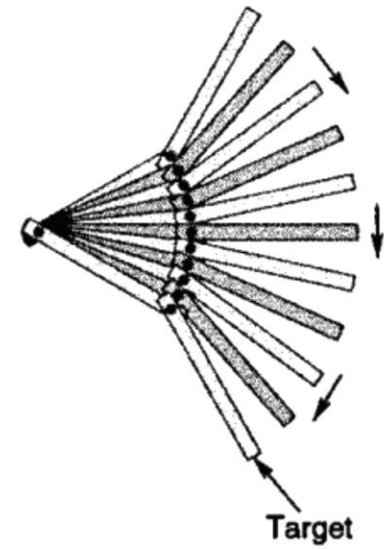
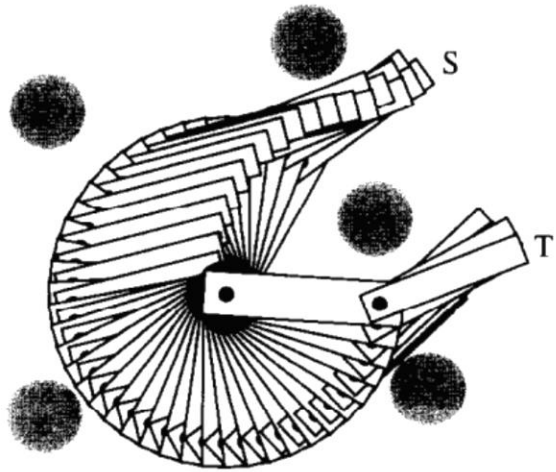


The background features a dark blue gradient with a subtle pattern of white dots. Overlaid on the left side is a large, semi-circular degree scale ranging from 40 to 260 in increments of 10. Several concentric circles and dashed lines with arrows are scattered across the image, suggesting a technical or scientific theme.

HEXAPOD ROBOT CONTROL SYSTEM

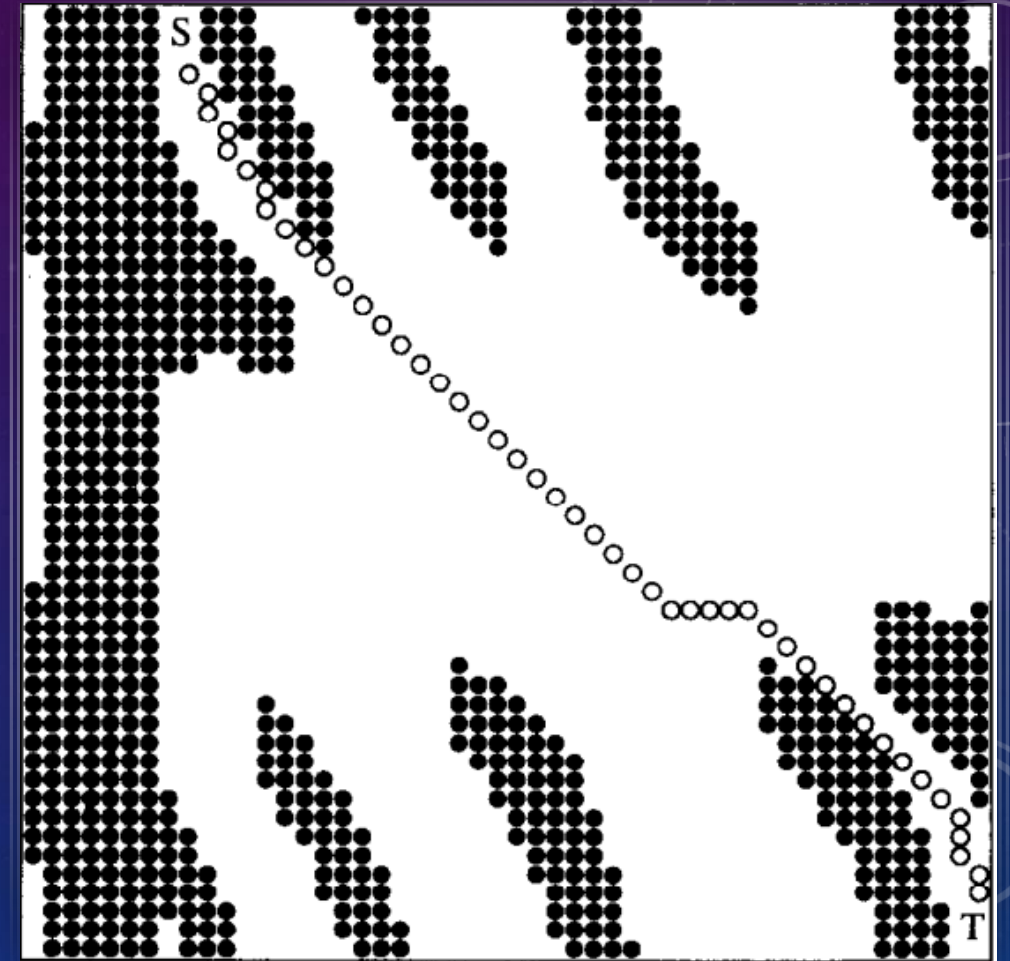
4RD MEETING – 2019/12/27

EXAMPLES IN THE PAPERS



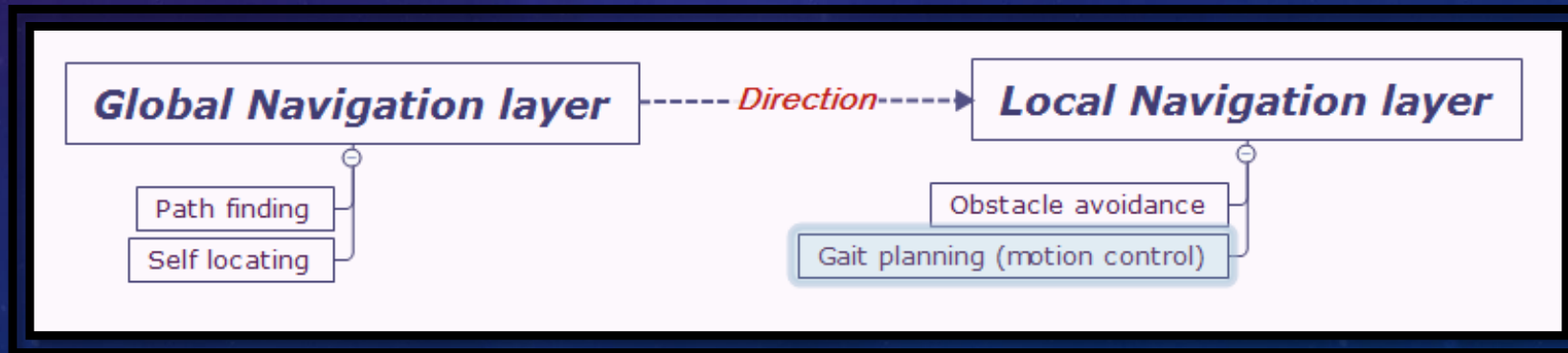
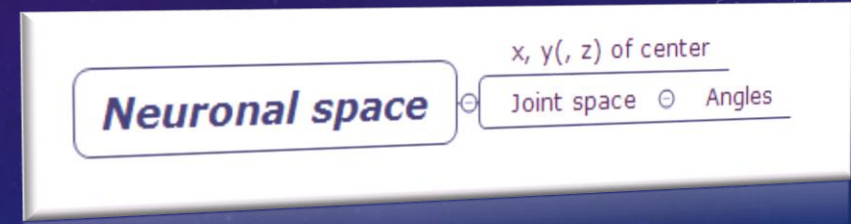
JOINT SPACE

- Extremely simple
- Does not involve distance between the target and the robot
- Joint space very easy to calculate directly

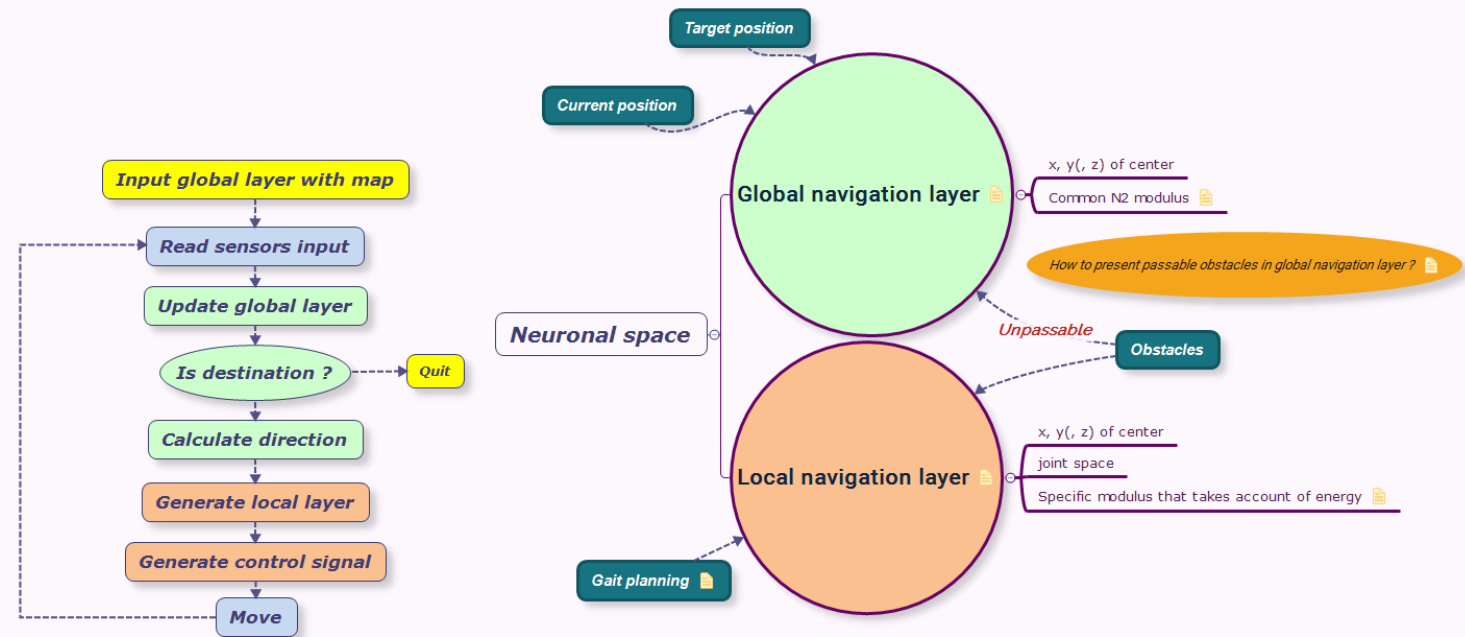


POSSIBLE SOLUTION

- Add (x, y, z) dimensions to the neuronal space or only (x, y) as the robot cannot fly, info of z dimension can be calculated
 - 20 or 21 degrees of freedom, the space is grand, and most of them is blank
- Introduce a multi-layer neuronal space
 - High resolution local navigation layer, include joint space in this layer
 - Low resolution global navigation layer, traditional path finding techniques
 - Use a specific modulus to take account of energy and time consumed

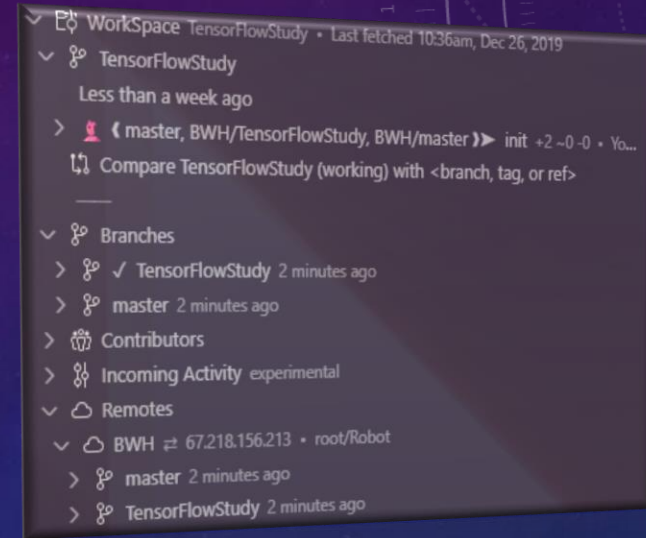


GLOBAL DESIGN



WORKSPACE PREPARATION

- Installed Tensorflow (but might not be useful)
- Initiated Git repository (for tracking work and working on different computers)



```
2019-12-26 10:17:59.157806: I tensorflow/core/platform/cpu_feature_guard.cc:142] Your CPU supports instructions that this TensorFlow binary was not compiled to use: AVX2
Train on 60000 samples
Epoch 1/5
60000/60000 [=====] - 4s 72us/sample - loss: 0.2855 - accuracy: 0.9185
Epoch 2/5
60000/60000 [=====] - 3s 57us/sample - loss: 0.1386 - accuracy: 0.9593
Epoch 3/5
60000/60000 [=====] - 3s 55us/sample - loss: 0.1051 - accuracy: 0.9681
Epoch 4/5
60000/60000 [=====] - 3s 57us/sample - loss: 0.0868 - accuracy: 0.9732
Epoch 5/5
60000/60000 [=====] - 4s 60us/sample - loss: 0.0749 - accuracy: 0.9763
10000/1 - 0s - loss: 0.0368 - accuracy: 0.9772
```