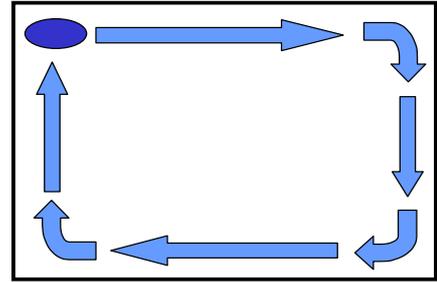


**Task 1: Wall Following**

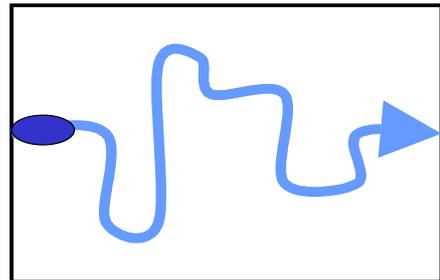
The AUV is placed close to a corner of the pool. The task is to follow the pool wall without touching it. The AUV should perform one lap around the pool, return to the starting position, then stop.



**Task 2: Pipeline Following**

A plastic pipe (diameter and color to be specified) is placed along the bottom of the pool, starting on one side of the pool and terminating on the opposite side. The pipe is made out of straight pieces and angle pieces. The AUV is placed over the beginning of the pipe close to a side wall of the pool.

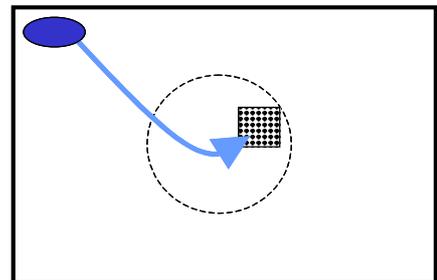
The task is to follow the pipe on the ground until the opposite wall has been reached.



**Task 3: Target Finding**

The AUV is placed close to a corner of the pool. A target plate with a distinctive checkerboard texture (size and color to be specified) will be placed at a random position within a 3m diameter from the center of the pool.

The task is to find the target plate in the pool, drive the AUV directly over it and drop an object on it from the AUV's payload container. (AUV's without the ability to drop a payload should just hover over the target plate).



**Task 4: Object Mapping**

A number of simple objects (balls and boxes, color and sizes to be specified) will be placed near the bottom of the pool, distributed over the whole pool area. The AUV starts in a corner of the pool.

The task is to survey the whole pool area, e.g. using a sweeping pattern, and record all objects found at the bottom of the pool. The AUV shall return to its start corner and stop there. In a subsequent data upload (AUV may be taken out of the pool and a cable attached to its onboard system), a map of some format should be uploaded that shows location and type (ball or box) of all objects found by the AUV.

