



## Project Name: Pipe Inspection Robot

**Researcher(s)/Developer(s):** Asst.Prof.Dr.Thavida Maneewarn, Wasin Kaowumpai, Roongrote Wangkieta, Thodsapron Bunthae, Satit Theprathankit, Komkrit Thipgesorn and Thanniti Khunnithiwarawat.

### Introduction



**Figure1.** The group of inspected pipeline.

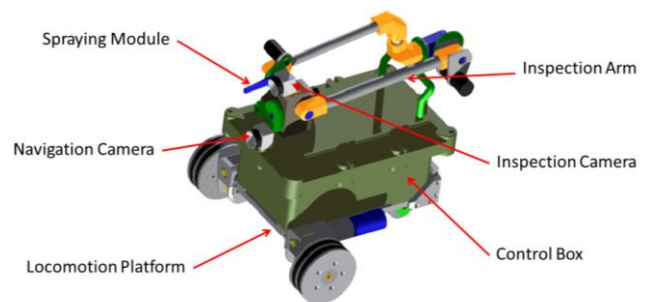
Currently, one of the responsibilities of Rayong Engineering and Plant Service Co., Ltd. (REPCO) is to monitor and inspect pipeline in the industry. The company will work with the staff to monitor all areas. This can be considered as a risk work. In particular, the group with pipe lying across the street near high voltage power lines, so REPCO wishes to find solution to help in the work. Institute of Field Robotics (FIBO) has recognized the possibility of using robots instead of human.

### Problem Statement

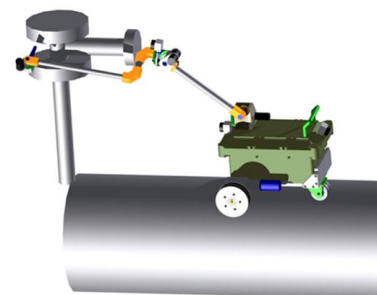
From consideration the problem, robot solution can reduce the risk of unsafe operation. In addition, it can reduce the cost of installation and reduces time consuming. This project will focus on the robot which can be designed to work on a pipe bridge as shown in Figure 1. It has used to apply for inspection the leakage of gas by soap test method as shown in Figure 2.



**Figure2.** Example of Soap test method.



**Figure3.** Model of pipe inspection robot



**Figure4.** The Robot is inspecting valve.

### Expectation

Pipe inspection robot can move along the pipeline and check for leaks and valve with soap test.