# AMT Co., Ltd.

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Biz. Area	Amusement, Automation, Consulting

AMT Co., Ltd., which was founded in November 5th 1998, possesses outstanding skills in designing, manufacturing and operating computer-based motion systems. In particular, the company is recognized as promising in business areas such as hydraulic system, robot using the servomotor system, automated construction machine and animatronics. In the company, the R&D team consisting of masters and doctors are independently carrying out the design and manufacturing of mechanic systems, controllers and programs and making ceaseless efforts to develop new technologies. AMT is performing R&D jointly with *Korea Institute of Construction Technology, Inha University, Hongik University,* and *Pusan National University,* etc. Although it is not large, AMT is making high profits in the market based on its strong technological power.

The main business areas of AMT are amusement, construction, system automation, and technical consulting. In the area of amusement, the company has developed 6DOF motion simulator adopting hydrostatics and servomotor system and, with it, is achieving a large part of the sales. In addition, the company developed large-sized animatronics robot and supplied it to major theme parks including *Everland*.

In the area of construction automation, AMT has just started the development and commercialization of teleoperated concrete pipe laying manipulator system, roadway sign painting and eraser system, etc.



# **100.** Automation in Construction



The tele-operated concrete pipe laying system adopting 6DOF Stewart Platform is being developed jointly with *KICT* and *Inha University*. This research aims to develop a tele-operated concrete pipe laying manipulator and to generate the real-time as-built drawing of the pipe laid by integrating the developed system with CAD and GPS technologies. We have achieved the result of the research by proving that the tele-operated manipulator could improve working environment through eliminating works in trenches. Thus the research provides a solution to the issue of safety involved in piping in trenches. Moreover, as-built drawings generated from the newly developed system will contribute to the more efficient maintenance of pipe laying operation.





# **100.** Automation in Construction







The picture above is the roadway sign painting/erasing robot system that AMT developed jointly with *Korea University* and *KIMM*. The erasing system, which has been researched together with *KIMM*, is under development adopting highpressure water jet system. The prototype of the system will be completed and be developed into a commercial model until December 2004. The painting system developed by AMT in cooperation with *Korea University* was developed using Air Spray. The prototype of this system has been completed and is ready to be commercialized.





### 200. Amusement & Attraction



The amusement business is divided into two divisions; animatronics and motion simulator. Picture one and two show the appearance of big robots Hades (1) and Dragon (2) that are used in the final stage at 9:00 pm at *Everland*. Hades is six meters tall, which makes 17 kinds of motions and produces special effects including those using firing powder. It rises from six meters below the stage floor as the show starts (See the picture on Page 5). Dragon is 13 meters tall. It rises from four meters below the ground, making 12 kinds of motions and, after performing a show, disappears into the ground. The next page shows Dragon appearing from underground, unfolding its wings and long trunk.

Picture 3 is a motion simulator realizing virtual space. Various models are being manufactured, installed and operated, including those for one person, two, ten, fifteen and twenty.





## 200. Amusement & Attraction (Dragon)

















# 200. Amusement & Attraction (Hades)

#### Producing & setting up







Going into action







