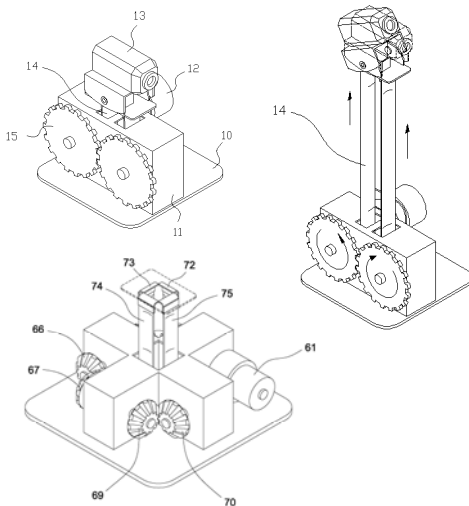# LIFTING POWER DEVICE WITH INTEGRATED MULTI-MEASURING TAPES

Nanya Institute of Technology
Liaw Wei-lianq, Chien Rean-der, Tsaur Jaan-yuan, Chern Sy-farn

Principle & Function

• 2 tape-measure type

• 4 or 8 tape-measure type

Feature

• small unit and exquisite structure
• extremely high lift ratio
  (extended height/basis height)
• ease use、ease control
• new invention、very useful

Technical data

• 2 tape-measure type： 75 cm height   4 tape-measure type：150 cm height
• 8 tape-measure type：220 cm height   (original height ：10~14 cm)

Application 1--remote-control reconnaissance vehicles

Application 2--military or civilian's livelihood industries

Ordinarily： as a traffic recorder
Necessary： searching and monitoring

TAIWAN

連體多皮尺式動力升降裝置
南亞技術學院

Patent number
Taiwan: TW I331594

發明人：廖威量 、簡仁德 、曹展源 、陳思帆

・本發明由驅動、傳動、升降等單元及載台所組成，其中升降單元 係本案之特徵，由多皮尺（又稱捲尺）結構實施，應用皮尺之「剛性框」原理，結構小巧，升程比(伸展高/基本高)極大，能以最少的材料升至極高的高度，且仍不致變形、擺振。

・本案之「多皮尺」係指2或4或8個皮尺，以背對背或重疊的方式組合，透過馬達與正齒輪(二皮尺)或傘齒輪(四皮尺)帶動，達到同步升降的目的。

・本創作之裝置可當作小型攝影機之載台，應用於小型遙控偵搜車、坦克車之於掩蔽物後方監視；或警政車、民用車裝於天窗下方，平時可當行車記錄器，需要時可升高視野，作蒐證、應變之用。

• The invention is composed of driving, transmission, lifting and platform units. The lift unit is the feature of this invention. The creation mainly use a principle of measuring- tape with "rigid box". There is a advantage of a small and exquisite structure, and a extremely high lift ratio (extended height/basis height).

•The"multi"of this invention means 2, 4 or 8 measuring tapes. It may get the purpose of going synchronously up or down through the motor and spur gear (2 tape-measure) or bevel gear (4 tape-measure).

•The device of this invention may be used as a platform of a minicam, and applied to the searching and monitoring behind a shelter of a small remote-control reconnaissance vehicles and tanks or ordinarily used as a traffic recorder and to promote vision for searching and dealing with a contingency when necessary in police vehicles or civilian vehicles fitted under the skylight.