CLAIMS

1. A robotic parking system comprising a plurality of vehicle 20 holding containers 10, the containers 10 being disposed in stacks 110 within a frame work structure 70, the frame work structure 70 comprising a series of substantially vertical uprights 72 having a substantially horizontal grid 74, 76 mounted thereon, the grid 74, 76 comprising two substantially perpendicular sets of rails on which at least one load handling device 50 is operable, the load handling device 50 comprising a body mounted on wheels, a first set of wheels being arranged to engage with at least two rails of the first set of rails 74, the second set of wheels being arranged to engage with at least two rails of the second set of rails 76, wherein one of the first or second set of wheels is independently moveable and driveable with respect to the other of the first or second set of wheels such that when in motion only one set of wheels is engaged with the grid at any one time thereby enabling movement of the load handling device 50 along the rails 74, 76 to any point on the grid by driving only the set of wheels engaged with the rails 74, 76 in which the containers 10 comprise a vehicle 20 carrying platform 35 and column supports 30, the column supports 30 positioned and sized such that each container 10 supports the container 10 immediately above in the stack 110,

the platform further comprises a box-like structure for positioning over the vehicle, the box-like structure incorporating the column supports 30;

wherein, the platform 35 comprises a plate moveably mounted on a set of rollers, the plate may be moved from a first position to a second position on the rollers, the first position is the position where the plate is located outside the box-like structure; the second position is the positon where the plate is located inside the box-like structure, the roller located in the box-like structure is provided with rollerless recesses, the underside of the plate is provided with cooperating means to interact with the rollerless recesses; when the plate is located in the second position, the cooperating means on the underside of the plate is positioned in the rollerless recesses in the base

of the box-like structure, so that the plate will no longer move with respect to the box and the vehicle positioned within the box.

2. The robotic parking system according to claim 1 in which the system comprises more than one load handling device 50, at least one of the load handling devices being sized so as to accommodate vehicles such as vans, 4x4s or trucks and at least one of the load handling devices being sized so as to only accommodate passenger cars.

3. The robotic parking system according to any preceding claim in which the system further comprises a control system, the control system comprising identifying means, monitoring means and locating means, the identifying means identifying a vehicle 20 to be parked, monitoring means, for associating a vehicle 20 with a container 10, and locating means for locating the container 10 within the stack 110 to enable a load handling device 50 to retrieve a given container 10 on demand.

4. The robotic parking system according to claim 3 in which the identifying means comprises a number plate recognition system.

5. The robotic parking system according to any preceding claim in which a plurality of stacks 110 comprise only containers 10 sized so as to accommodate large vehicles, vans, 4x4s and trucks and a plurality of stacks comprise containers 10 sized only to accommodate passenger cars, each set of stacks being provided with at least one load handling device 50 capable of moving containers 10 with the subsection of stacks 110.

6. The robotic parking system according to any preceding claim, wherein the box-like structure comprises solid sides.

7. The robotic parking system according to any preceding claim, wherein the plate comprises a sealable cavity.