BALL AND PLATE SYSTEM

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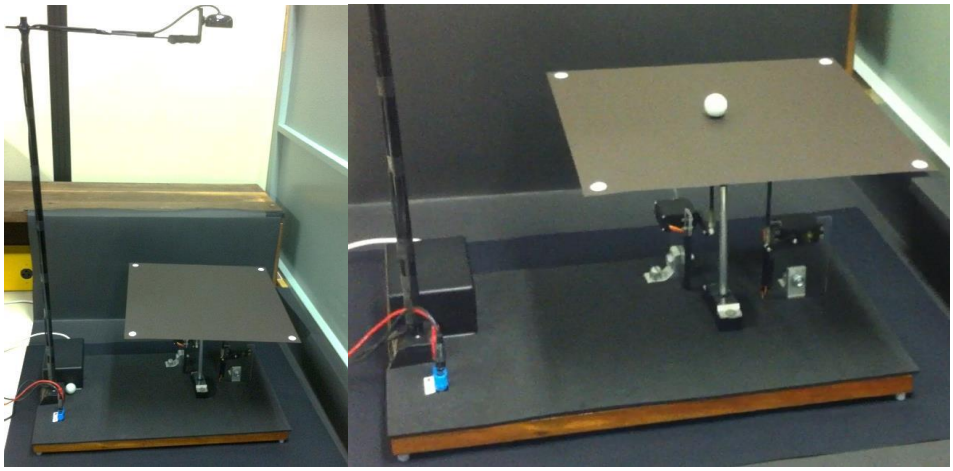
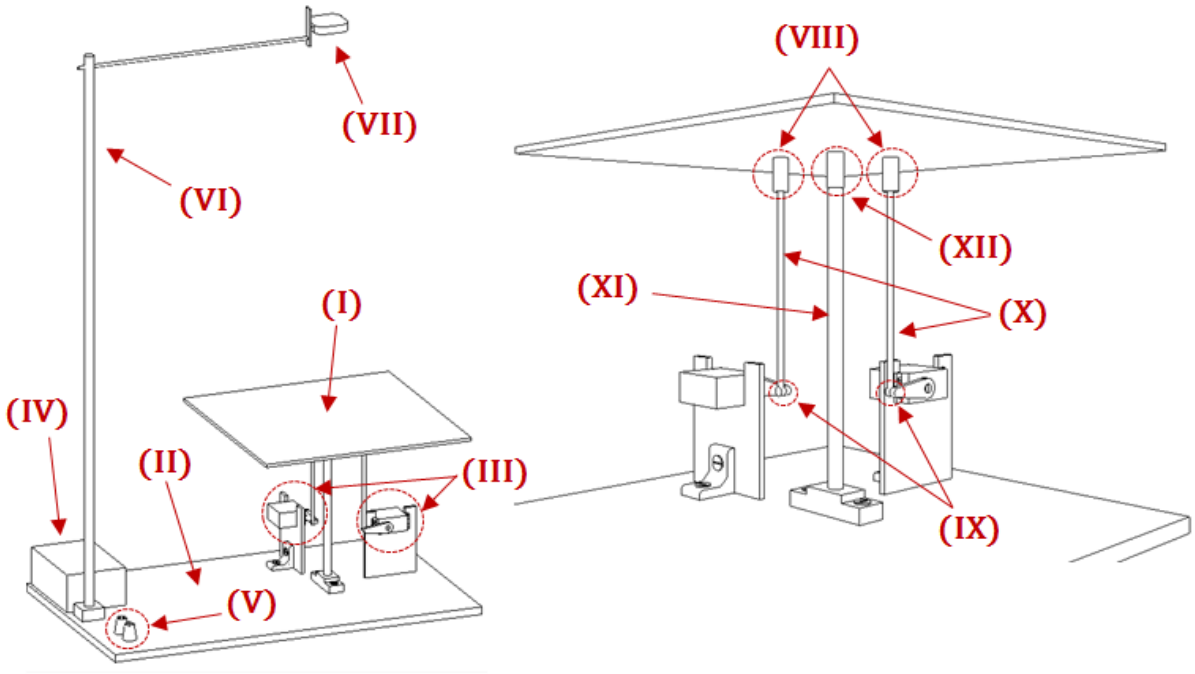
1. Prototype Overview



A video of the prototype can be checked on:

http://www.youtube.com/watch?v=N6IVamTIsLk

2. Material Description



(I) - Acrylic plate

(II) - Wood Base

(III) - Hextronik HXT12K Servo-Motors. Available on:

http://www.hobbyking.com/hobbyking/store/__2__hxt_10kg_servo_metal_gear_55g_10kg_16sec.html

(IV) - Arduino Prototyping Board (Mega 2560 or similar)

(V) – Jacks for source cables

(VI) , (X) and (XI) – Hollow Carbon Fiber Tubes (9mm /4mm diameters). Available on:

http://www.hobbyking.com/hobbyking/store/uh_viewItem.asp?idProduct=6723

(VII) – USB Webcam (Microsoft VX-800 or similar)

(VIII) and (XII) – Universal Joints. Available on:

http://www.ebay.com/itm/297c-1-set-U-Joint-D9-4-to-4-M3-L22mm-parts-for-RC-Boat/200940139345?_trksid=p2047675.m1850&_trkparms=aid%3D222002%26algo%3DSIC.FIT%26ao%3D1%26asc%3D11%26meid%3D249046130468976142 8%26pid%3D100011%26prg%3D1005%26rk%3D3%26rkt%3D5%26sd%3D200960448149%26

(IX) – Ball Roller Joints. Available on:

http://www.hobbyking.com/hobbyking/store/__8233__Ball_and_roller_link_3_9x2x16mm_10pcs_.html?strSearch=ball roller

Remark 1: Recommended a PC with MALAB for controlling the plant.

Remark 2: The recommended sphere is a mouse ball.

3. Detailed Mechanical Project