

Suppliers of parts available to Australia for 3 Axis Robotic Mechanisms- Neck, Torso & More

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Parts List from course	Supplier I used
<b>Metal</b>	
¼ inch thick x 1 ½ wide aluminum bar (1 foot length) – McMaster #8975K518	eBay
1/8 inch thick x 2 inch wide aluminum bar (1 foot length) – McMaster #8975K582	eBay
3/8 inch thick x 2 inch wide aluminum bar (6 inch length) – McMaster #8975K59	eBay
¼ aluminum rod (6 inches) – McMaster #8974K22 1/16 <sup>th</sup> inch thick x ¼ wide hobby brass strip (K and S Precision Metals brand) (Need 1 foot)	Campbelltown Hobbies <a href="http://www.campbelltownhobbies.com.au/">http://www.campbelltownhobbies.com.au/</a>
<b>MOTION COMPONENTS</b>	
¼ inch stainless steel shaft (6 inches) – McMaster #1257K65 (also available from ServoCity)	eBay
¼ inch clamping shaft collar (Ruland brand) (need 2) – McMaster #6435K12 (also available from ServoCity)	Small Parts and Bearings <a href="http://www.smallparts.com.au/">http://www.smallparts.com.au/</a>
¼ inch extra gripping shaft collar (Ruland Brand) (need 1) – McMaster #9951K31 *NB it was discovered that this is not Ruland Brand, but Stafford Manufacturing and is referred to on their site as high strength. <a href="http://shaft-collars-couplings.staffordmfg.com/item/standard-round-bore-shaft-collars/one-piece-split-clamp-type-shaft-collars/11004hd">http://shaft-collars-couplings.staffordmfg.com/item/standard-round-bore-shaft-collars/one-piece-split-clamp-type-shaft-collars/11004hd</a>	Small Parts and Bearings <a href="http://www.smallparts.com.au/">http://www.smallparts.com.au/</a>
¼ inch two piece clamping shaft collar (Ruland brand) (need 2) – McMaster #6436K12	Amazon
¼ inch steel rod ends with female shank (need 2) – McMaster #60645K321	Amazon
¼ inch pin and block universal joint (Lovejoy brand) (need 1) – McMaster #6443K24 (also available from ServoCity if you are on a tight budget – not Lovejoy brand)	Amazon
¼ outer diameter female 6-32 threaded round aluminum stand offs – 3 inch long (need 2) – McMaster #93330A542 (also available from ServoCity)	Amazon
¼ outer diameter female 6-32 threaded round aluminum stand offs – 3 inch long (need 2) – McMaster #93330A542 (also available from ServoCity)	ServoCity
6-32 heavy duty RC ball linkage (DuBro brand) (need 4) - Available at most RC suppliers	ServoCity
4-40 heavy duty RC ball linkage (DuBro brand) (need 2) – Available at most RC suppliers	Campbelltown Hobbies <a href="http://www.campbelltownhobbies.com.au/">http://www.campbelltownhobbies.com.au/</a>
<b>HARDWARE</b>	

2-56 by ¼ inch long button head cap screws (need 8)	<a href="http://www.fastenersgalore.com.au/">http://www.fastenersgalore.com.au/</a>
4-40 by ¼ inch long socket head cap screws (need 2)	<a href="http://www.fastenersgalore.com.au/">http://www.fastenersgalore.com.au/</a>
4-40 by 3/8 inch long socket head cap screws (need 3)	<a href="http://www.fastenersgalore.com.au/">http://www.fastenersgalore.com.au/</a>
4-40 by ½ inch long socket head cap screws (need 4)	<a href="http://www.fastenersgalore.com.au/">http://www.fastenersgalore.com.au/</a>
4-40 “all thread” stainless steel threaded rod (need 1 piece) – Available at ServoCity and most RC Suppliers	Campbelltown Hobbies <a href="http://www.campbelltownhobbies.com.au/">http://www.campbelltownhobbies.com.au/</a>
6-32 by 3/8 inch long button head cap screws (need 16)	<a href="http://www.fastenersgalore.com.au/">http://www.fastenersgalore.com.au/</a>
6-32 by ½ inch long socket head cap screws (need 8)	<a href="http://www.fastenersgalore.com.au/">http://www.fastenersgalore.com.au/</a>
6-32 by ½ long set screws (need 4) – OR - 6-32 “all thread” stainless threaded rod (need 1 piece)	Small Parts and Bearings <a href="http://www.smallparts.com.au/">http://www.smallparts.com.au/</a>
¼ -28 by ½ inch long button head cap screws (need 2)	Small Parts and Bearings <a href="http://www.smallparts.com.au/">http://www.smallparts.com.au/</a>
<b>RC COMPONENTS</b>	
Servo Brackets – Standard Servo Plate B (Actobotics brand) (need 3) - Available from ServoCity	ServoCity
RC Servos (need 3) – (we will be using Hitec HS5645MG servos but others may be substituted depending on project specifics) - Available at most RC suppliers	Campbelltown Hobbies <a href="http://www.campbelltownhobbies.com.au/">http://www.campbelltownhobbies.com.au/</a>
RC receiver – at least 3 channels (need 1) – available at most RC suppliers	HobbyCo Campbelltown