

A Simple and Inexpensive Running Wheel Model for Progressive Resistance Training in Mice

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jove.com/video/63933

Materials

Name	Company	Catalog Number	Comments
1 g disc neodymium magnets	Applied Magnets	ND018-6	Used for all sensor magnets and 1 g increments of wheel loading
2.5 g disc neodymium magnets	Applied Magnets	ND022	Used for 2.5 g increments of wheel loading
8-32 x 1" stainless steel screws	Amazon		https://www.amazon.com/gp/product/B07939RS23/ref=ppx_yo_dt_b_search_asin_title?ie=UTF8&psc=1
8-32 Wing Nuts	Amazon		https://www.amazon.com/gp/product/B07YYWW2SB/ref=ppx_yo_dt_b_search_asin_title?ie=UTF8&th=1
10 µL pipette tip box (empty)	Thermo Scientific	2140	We used empty ART Pipette tip boxes, but any similar sized boxes/trays would suffice
Extreme Liquid Glue	Loctite		
Laminin primary antibody	Novus Biologicals	NB300-144AF647	primary antibody conjugated with AF657; 1:200 in PBS containing 10% normal goat serum
Lithium 3 V battery	n/a	CR2032	
M10 (3/16" x 1 1/4") stainless steel fender washers	Amazon		https://www.amazon.com/gp/product/B000HUHEU8/ref=ppx_yo_dt_b_search_asin_title?ie=UTF8&th=1
MyoVision: Automated Image Quantification Platform	Wen et al. (2017)	v1.0	https://www.uky.edu/chs/center-for-muscle-biology/myovision
Polycarbonate rodent cage (430 mm L x 290 mm W x 201 mm H), with narrow width stainless steel wired bar lid	Orchid Scientific	Polycarbonate Rat Cage Type II	https://orchidscientific.com/product/rat-cage/-1519974600758-c29bc1c5-6dfa
Sigma Sport 509 Bike Computer	Sigma Sport		Does not need to be this model in particular, but must have distance and time monitoring capabilities

Silent Spinner Running Wheel (mini 11.4 cm)	Kaytee	SKU# 100079369	https://www.kaytee.com/all-products/ small-animal/silent-spinner-wheel
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