

PARTS LIST

A list of gear needed, in addition to the Monkey Brain light array and controller software, to create a fully functioning system for Micro-RTI capture. Only the Lumenera imager is "mandatory" as it is required to run the software that controls both camera and light array. Other parts can be substituted to meet specific needs.

Paul Messier 6/3/2014

Lumenera Imager	Est. Cost: \$4,500
<p>CMOS and CCD versions in the 3 to 5 megapixel range USB Interface, C-mount 2/3" format (approx.), color and monochrome versions</p> <p>Links: C-mount microscopy cameras</p> <p>The customized auto-capture software that controls the Monkey Brain will only work with the company's imagers. The recommended model is the Infinity 2-5, 5.0 MP, 14 bit CCD.</p>	
Edmund Optics VZM Zoom imaging lens	Est. Cost: \$995
<p>Model VZM 200i Adjustable field of view from 3 to 12 mm Working Distance 9 cm \$800</p> <p>Links: Info page for zoom lenses, note side bar on left with other lens option: VZM 200i</p> <p>There are a lot of options on lenses from Edmund and elsewhere. The locking focus and iris are nice for consistent imaging on lots of similar samples. Lenses in this category vary widely especially in terms of sharpness/ light gathering capabilities. Before getting too far, test any lens carefully and exchange it if it doesn't quite meet your expectations. Keep an eye on working distance since the Monkey Brain will need to fit under the lens. The VZM200i has a working distance of 90mm which is perfect for the MB.</p>	
Edmund rack and pinion focusing mount	Est. Cost: \$355
<p>Model NT54-792 or NT03-609 35 mm travel with lock knobs</p> <p>Links: Edmund's info page NT54-792</p> <p>The NT54-792 is recommended as it has both fine and coarse focusing capabilities. Rotation of the mount is possible on other, more costly, models.</p>	
Edmund 3/4" Post Adapter for Boom Stands	Est. Cost: \$210
<p>Model #54-124 Links: Edmund's info page 30-133</p> <p>An adapter needed to connect the focuser to the boom stand shown below.</p>	
Edmund Optics Boom Stand	Est. Cost: \$630
<p>Model J54-120, J54-121 10" square base 41" lbs. (should be sturdy) max load 23 lbs.</p> <p>Links: Edmund's info page 54-120</p> <p>This is the most basic boom stand. Moving up in cost buys you smoother / easier adjustability. One option is a fully articulating arm. This could be especially useful for 3D objects if the Monkey Brain was mounted to the focuser. Cost estimate is for the most basic unit.</p>	
Edmund stage micrometer	Est. Cost: \$225
<p>Model NT30-133 Links: Edmund's info page 30-133</p> <p>You will need this or an equivalent to confirm the scale of captured images and to calibrate the zoom / magnification of the lens.</p>	

Total est. cost: \$6,915