

JUNIOR SOLAR SPRINT MATERIALS FOR BUILDING

Scavenge: You or your students may be able to scavenge vehicle parts (gears, pulleys, wheels, axles) from old toys and small appliances. A recycling center or scraps from a wood shop may provide you with chassis material.

Purchase: These have been my primary sources for materials:

1. PITSCO www.shop-pitsco.com 1-800-358-4983

Solar Panel (QX37942---\$38.25 (Don't buy many—these can be shared!))

#280 Motors: DE54428---#1.95 each; 10 or more, \$1.80 each

Gear Font (16 toothed gears): DE25300---\$5.50; also check gears at **Solar Made** (below)

GT-RX Wheels (rear): DE36688 (pkg of 100)---\$11.65

GT-FX Wheels (front): DE36685 (pkg of 100)---\$11.65

Wide Rubber Bands for Wheels: DE56136 (pkg of 50)---\$2.50

Aluminum Axles: DE53626 (3 ft. length)---\$.85 each

Plastic Straws: DE33890 (pkg of 500)---\$13.75 (for axle bearings---1/8 inch diameter)

Axle Tubes: DE50071---(pkg of 10) ---\$1.95

Nylon Spacers: DE54584 (pkg of 30) ---\$5.45 (can also be used as axle bearings)

Jumpers: DE56197 (pkg of 10)---\$8.95

2. SCIENCE FIRST www.sciencefirst.com 1-800-875-3214

Fiberboard Wheels (2-3'4" diameter) #21334 (pkg of 20)---\$14.44

Fiberboard Wheels (2" diameter) #21332 (pkg of 20)---\$12.13

Cardboard Wheels #21346 (pkg.of 100?)---\$6.35

Wooden Axles (dowels) 3/16" (purchase at local hardware store---half price!)

Plastic Pulleys: Check these out at the Science Source website---expensive! Compare with pulleys at **Kelvin** www.kelvin.com 1-800-535-8469 or at **Amazon**

Motor Pulleys #21422 (pkg of 10)---\$8.38 (worth it!)

Motor T-Bushings (fits bigger pulley on motor shaft---pkg of 20) ---\$8.96

Motor Mounting Clips #21426 (pkg of 10)---\$9.19 (also worth it)

Spacers #21530 (pkg of 100)--\$13.00---**pricey! Can use straws as substitutes**

Reamer #21407 enlarges holes to 3/16"---\$15.31 (3/16" drill bit much cheaper alternative)

In addition, I have purchased jumpers and small battery packs (for two AA batteries) at **Radio Shack** (if you can find one!) and foam core at **Staples**. The smaller #260 motors (with wire leads) can be purchased from **Solar Made** for \$1.99 each. Their website is www.solarmade.com Their phone number is 1-800-246-7012.