

WHITMORE ENTERPRISES, INC.

Designing and Manufacturing

Specialized Equipment in Support of NASA Space Program

Hypobaric & Hyperbaric Chamber Controls Research Treadmills, Ergometers

Human Body Volumeters

Specialized Medical & Aerospace Research Devices

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SECOND GENERATION TREADMILL

Whitmore Enterprises, Inc. will design and fabricate a Second Generation Treadmill. This treadmill will use the best tried and proven features used in the present space shuttle, but take it the next step forward.

The present treadmill was an add-on attachment that was mounted above the floor without allowing enough length and width for some subjects to jog or run comfortably. This above-the-floor mount also allowed the unit to vibrate the hatch it was mounted on thus amplifying the noise of the unit.

This new treadmill will be designed for flush mounting in the floor of the space craft or station.

This improved unit will incorporate the use of vibration absorbing mounts to help suppress the noise. We will also study the use of noise suppressing materials in the treads to further suppress the noise. Tighter tolerance will be incorporated between ball bearing rollers and the track for additional noise suppression.

This improved unit will provide 18" additional running length and a 2" increase in width. This will improve safety by eliminating the chance of the subject stepping off the edge of the raised unit now being used.

This unit will have an adjustable speed control in steps up to 6 m.p.h. minimum, with a maximum goal of 10 m.p.h. This will be a passive treadmill needing

no power for incline operation, but making provision for an optional motor drive for a no-incline operation.

The system will have a fold down or a plug-in handrail. The mounting plate will allow room for cut outs to conceal hold down force cord assemblies under the floor. These hold down force cord assemblies will not be developed at this time. This system will be a 1G prototype using materials without certification. This will be a deliverable item and be delivered after testing.

This task will take six months to complete. We would require \$25,000.00 in advance and \$25,000.00 upon completion for a total of \$50,000.00.

We will make a mid term progress report and a final report.