B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS

1. Describe (including a numerical estimate) the potential respondent universe and any sampling or other respondent selection method to be used. Data on the number of entities (e.g. establishments, State and local governmental units, households, or persons) in the universe and the corresponding sample are to be provided in tabular form. The tabulation must also include expected response rates for the collection as a whole. If the collection has been conducted before, provide the actual response rate achieved.

Respondents are NIST employees, guest researchers, and visitors to NIST who meet the required IRB qualifications (e.g., self-claim of physically fit and at least 18 yrs old). Respondents are both male and female and fit within the exoskeleton manufacturer specification of 5th through 95th percentile human. Thirty (30) participants will complete six tasks for a total of 180 participants required to complete the study. Because this study is lab based and in person, the response rate should be 100%.

2. Describe the procedures for the collection, including: the statistical methodology for stratification and sample selection; the estimation procedure; the degree of accuracy needed for the purpose described in the justification; any unusual problems requiring specialized sampling procedures; and any use of periodic (less frequent than annual) data collection cycles to reduce burden.

A written survey is completed by each subject upon completion of the test(s). Results may be compared from: male vs. female, shoulder height to the upper test shelf, exoskeleton sizing-to-the-human settings, subjective fit or non-fit to the subject, and/or heart rate data plot slope may be used for results correlation. Degree of accuracy is subjective as only the test method is being evaluated. Each test is per subject and data will be grouped as above. Commercial survey-specific software to automate its collection and analysis of feedback may be used.

3. Describe the methods used to maximize response rates and to deal with nonresponse. The accuracy and reliability of the information collected must be shown to be adequate for the intended uses. For collections based on sampling, a special justification must be provided if they will not yield "reliable" data that can be generalized to the universe studied.

Upon PRA approval, the IRB study will be amended to allow non-federal employees and a new solicitation will commence, including: a NIST-wide event posting and flyers posted in NIST buildings. Responses to surveys will be collected from each subject who participates. Maximizing and non-response are not issues for this study. Participants will be answering all questions unless the test is abruptly stopped for some reason.

4. Describe any tests of procedures or methods to be undertaken. Tests are encouraged as effective means to refine collections, but if ten or more test respondents are involved OMB must give prior approval.

The test procedure includes a subject who performs the test method. After, the subject will wear the exoskeleton which is new to all participants.

5. Provide the name and telephone number of individuals consulted on the statistical aspects of the design, and the name of the agency unit, contractor(s), grantee(s), or other person(s) who will actually collect and/or analyze the information for the agency.

If statistical methods are used, NIST will obtain and provide information from the statisticians involved in the development, design, conduct, and analysis of usability data collections to be conducted, when appropriate. NIST will provide the name and contact information of the persons consulted in specific information collection requests submitted under this generic clearance.