Project Title: Therabot – A Robot Therapy Support System Project
Faculty Name / Department / Office # / Email / Phone #: Cindy L. Bethel, Ph.D. / Computer Science and Engineering / Butler Hall 313 / cbethel@cse.msstate.edu / 662-325-2757

Brief Project Description [3-5 sentences]: This is an ongoing project currently sponsored by NSF. The project will involve the programming of a prototype robot named Therabot. It will be used as a therapy support system for people that are experiencing post-traumatic stress disorder for therapy support and home therapy practice. The project will include programming the Arduino controller, robot behaviors, and the design and development of a robot operator interface. This project will also involve artificial intelligence to allow the robot to sense user stress and respond autonomously to the user.

Required Qualifications (optional): Completion of CSE 2383 with a grade of B or higher. Programming experience in Python and C++. Willingness to assist with data collection with human participants. CITI training as required by the Office of Regulatory Compliance in order to assist with human studies.

Preferred Qualifications (optional): Preference given to students that have prior experience with PyQt or similar software for Graphical User Interface (GUI) programming. Completion of CSE 4633 Artificial Intelligence. Prior experience with programming an Arduino controller and software.

Expected Number of UG Research Positions: 2
Expected Number of Hours per Week: 20

Figure/Graphic (optional): Therabot stuffed version and high-level design for prototype