

## The ElderBots Program

April, 2015

ElderBots is a program conducted by the Carnegie Mellon University Quality of Life Technology Center. The main goals of ElderBots are to:

- improve the quality of life for older adults by facilitating intergenerational contact, and,
- instill in teenagers a sense of volunteerism and potential career choices that benefit older generations and the communities they share.

ElderBots promotes informal intergenerational contacts through the use of a small, appealing, low-cost, mobile robot named EB. Participating organizations and facilities serving older adults are teamed with local high schools that recruit students to visit the older adults, interacting on an informal basis through the use of EB. The ElderBots program, therefore, addresses the critical problems of loneliness, isolation, and depression among older adults, and the decreasing level of social interaction found widely throughout our society.

The program will also leverage robotics as a very effective means of teaching advanced technologies. Additionally, while it may exist in a school as either an accredited course or an extracurricular activity, students will find it useful in building their academic and volunteer portfolios.

The following are possible scenarios that describe ElderBots' utility and impact:

### SENIOR CARE ORGANIZATIONS

ElderBots may be deployed across the full spectrum of services and living arrangements for older adults as described below:



### Independent Living Residences, Retirement Communities, and Community Centers:

The typical resident or participant in these settings is likely a fully cognitive individual, generally involved in the community at large. The ElderBots program may hold interest for them in arrangements such as the robotics/ tech clubs and oral histories described above or may simply be a way of providing intergenerational programming.

### Assisted Living/Personal Care, Skilled Nursing, Adult Day Care and Hospice:

Cognitive and physical capabilities can vary widely among individuals receiving services in these categories, and many of the facilities providing them have separate memory care units for those with significant to severe dementia. EB has been used effectively with dementia patients and the inclusion of young people is likely to be a winning combination. Even individuals in hospice care may find participating in a program like ElderBots to be helpful.

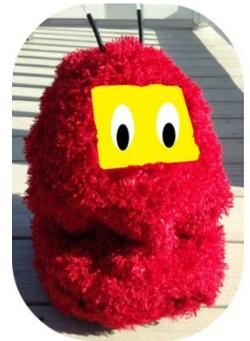
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## HIGH SCHOOLS

ElderBots could be used in high schools either within the curriculum as an accredited course, or as an extracurricular activity.

### Courses within the curriculum:

- Service learning is often completed as one-off projects, whether classroom-based, after-school, or individual. Students may earn credit by taking EB to a senior care facility.
- ElderBots may be included in the Social Studies curriculum. As an example, oral histories instruct students about their local history; ElderBots may act as an icebreaker to get the students and older adults acquainted for these sessions. A student might program EB to act as a well-known historical figure by answering questions about the past.
- Senior/ Honors Projects are a standard part of the curriculum in many high schools. ElderBots and EB might be used as a basis for creative projects involving older adults.
- Computer programming and technology education courses are the “icing on the cake”. EB is an excellent platform for learning coding, as well as other high tech skills such as programming laser cutters for producing the plastic plates that comprise EB’s frame. However, even this area allows for intergenerational contact. Consider, for instance, engineers, gadgeteers, and inventors near the school who would love to work with the students building and programming EB.



**Extracurricular/ Community-based activities** would likely be similar to the formal curricular activities described above, depending of course on voluntary participation. Organizations that may show interest in ElderBots include the National Honor Society, the Key Club, and robotics/tech clubs. Furthermore, their counterparts outside the school environment such as Scouts, the Boys and Girls Clubs, and other community-based after-school programs may also find ElderBots to be a good fit.

**Social connectivity and engagement** are exceptionally important for teenagers. Therefore the ElderBots program provides opportunities to participate beyond the visits to the care facilities:

- EBCN (ElderBots Connections Network) encourages the students to interact with their peers and CMU staff and faculty through an online wiki. In addition, active students will be invited to yearly forums on the CMU campus where tours and topics of interest will be presented.
- Board of Youth Advisors will consist of teens who will help chart the direction of the program.

For more information about ElderBots, contact Joe McLaughlin, ElderBots Coordinator, at [ElderBots@gmail.com](mailto:ElderBots@gmail.com) or 412-596-8173. Follow our blog at [www.elderbots.org](http://www.elderbots.org)