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iCODE overview

* Year-round after-school program + 2-week summer camp for middle and high school kids
* Teaches engineering design and microcontroller programming with hands-on projects
* On-line courseware, community-building, and programming tools
* NSF-funded collaboration between UMass Lowell and Machine Science Inc.
Learning goals

- Enhance students’ fluency in IT
- Increase students’ awareness of educational and career options in STEM and IT.
- Connect students to a community of like-minded peers and adults
Project activities

* Weekly after-school meetings at local school and community partner sites
* Annual Botfest exhibition and Robot Sumo competitions
* 2-week summer workshops
Two curricula

* TechCreation + Super Cricket for middle school kids
* Machine Science + Xboard for high school kids
* One integrated online system
Sample projects
Discussion

* On-line curriculum can integrate presentation of material with hands-on activities
* Site-based file storage means kids don’t have to worry about “where is my file”
* Teachers need to assist with username/password maintenance
* Plan to integrate community-building features (discussion boards, open project DB) by next fall