

iCREAT 1 Student Daily Schedule

Day	Topic and Notes
Day 1	Introduction to the Course
Day 2	Project discussion, introduction to electronics and course tools
Day 3	Create and simulate circuits. Program the microcontroller.
Day 4	Simulate a circuit with sensors. Program the microcontroller.
Day 5	Simulate a circuit with ultrasonic sensors. Program the microcontroller. Break in to teams
Day 6	Motors and motor shields. Program the microcontroller.
Day 7	Collision detection algorithms. Program the microcontroller.
Day 8	Mechanical design. Introduction to SolidWorks
Day 9	Design your prototypes
Day 10	Peer review. Use SolidWorks to model your design
Day 11	Intro to additive manufacturing. Teams collaborate on SolidWorks, 3D Printing, coding and debugging
Day 12	Students work on Project (SolidWorks, 3D Printing, Coding and Debugging, and Documentation)
Day 13	Students work on Project (SolidWorks, 3D Printing, Coding and Debugging, and Documentation)
Day 14	Students work on Project (SolidWorks, 3D Printing, Coding and Debugging, and Documentation)
Day 15	Final Project and Presentation

iCREAT 2 Student Daily Schedule

Day	Topic and Notes
Day 1	Introduction to iCREAT II course and project
Day 2	Review iCREAT I
Day 3	Project Requirements and Physical Design
Day 4	Introduction to the RPi
Day 5	Introduction to the RPi (cont.)
Day 6	MasterCAM, CNC to build the second level to house components
Day 7	Assembly physical devices and all components
Day 8	Introduction to the Linux Environment
Day 9	Logical Requirements
Day 10	Introduction to Python
Day 11	Python Programming
Day 12	Wiring between Arduino and RPi
Day 13	Wireless Communication (RPi and Android Tablet)
Day 14	Web-Enabled Control
Day 15	Introduction to Security. Finalize project, documentation, and present it