

Capstone Projects

Project	Student	Date	
BASIC Stamp	Doug Erbaugh	Fall 1995	Kit
6-Digit Digital Clock	William Russell	Spring 1996	Kit
NE-602 RF Signal Generator	Louis Turner	Spring 1996	Kit
FM Transmitter	Shawn Knisley	Spring 1996	Scratch built
FM Transmitter	Sayarath Nouanesengsy	Spring 1996	Scratch built
6-Digit Digital Clock	Roland Bischoff	Spring 1996	Kit
Ultrasonic Motion Detector	Bob Westbeld	Spring 1996	Kit
Acoustic Field Generator	Paul McDowell	Unknown	Kit
Video Sync Signal Corrector	Chad Monnier	Spring 1996	Kit
Radar Detector	Thi Bui	Spring 1996	Kit
9V FM Transmitter	Bill Donisi	Spring 1996	Scratch built
Video Sync Signal Corrector	Robert Longo	Spring 1996	Kit
Electronic Super Snooper	Wyatt McMillion	Spring 1996	Scratch built
ISD 1000A Analog Recorder	Wyatt McMillion	Spring 1996	Kit
Logic Analyzer	Daniel Schmidt	Spring 1996	Scratch built
Car Battery Charger	L. David Baird	Winter 1999	Scratch built
Television Transmitter Kit	Todd Bertke	Spring 1999	Kit
Dual Temperature Meter	Nadia Williams	Winter 2003	Kit
The Little Green Bug	Orville Beam	Spring 2003	Kit
Hyper Line Tracker	Sean Perfect	Spring 2003	Kit
3D Shimmering Pyramid	Jon Whittelsey	Spring 2003	Kit
Sumo Bot	Jim Bowden	Spring 2003	Kit
Infrared Light Beam Communicator	Jeff Atchison	Spring 2003	Kit
Modified Sumo Bot	Phayboune Sengsy	Spring 2003	Kit
Precision Stereo VU Meter	Molly Moran	Unknown	Kit
Cybug Solar Fly	Aaron Wilson	Unknown	Unknown
Stroboscope	David Smith	Spring 2003	Kit
Guitar Practice Amp	Jason Schultz	Spring 2005	Scratch built from online info & parts list
Home Theatre Subwoofer System	Nicholas Minch	Spring 2005	Scratch built
Brake By Wire	Aric Clay	Spring 2005	Scratch built
Vinyl to CD Preamp	Lisa Yoxtheimer	Spring 2005	Scratch built
FM Transmitter	Phil Hoover	Spring 2005	Unknown

Guitar Practice Amp	Joathan Skeans	Spring 2005	Scratch built
Sound Card Front End	Fred Vann	Unknown	Kit
Vacuum Tube Amplifier	Daniel Calvert	Fall 2005	Scratch built
PC to RC interface	Aaron Parker	Spring 2005	Scratch built from online info & parts list
PC to RC interface	Josh Gunsett	Winter 2006	Scratch built from online info & parts list
Bit-Taur 2000	Adam Fowler	Spring 2006	Scratch built
Voice Changer	Jermaine Ross	Spring 2006	Kit
	James Booth		
	John Sanderson		
Hex Crawler	Mike Richter	Spring 2006	Kit
Robotic Palletizing Solution	Gary Hiatt	Spring 2006	work project
Theremin	Bryan Wright	Summer 2006	Kit
Radio Controlled BoeBot	Daniel Kepple	Winter 2007	
Quadcrawler Security Robot	Theodore Beardsley	Winter 2007	kit
Digital Function Generator	Kenneth Braswell	Spring 2007	Kit
Personal Computer	Derik Holland	Spring 2007	Scratch built from parts
Overdrive Footswitch	Andrew Faller	Spring 2007	Scratch built
Pitch Shifter	Cody Conner	Spring 2007	Scratch built from online info & parts list
Soldering Station and Auto Scan FM Radio	Angela West	Spring 2007	Kits
Linear Cooler Drive Electronics test	Eric Graham	Spring 2007	work project
Space Flag	Trifon Chapman	Unknown	Kit
Single-phase Asynchronous Motor Regulator	Jerry Breneman	Fall 2007	Scratch built
Subwoofer	Justin Linville	Fall 2007	scratch built
Turbo timer	Michael Wysong	Fall 2007	scratch built
Sonotube Subwoofer	David Rackley	Winter 2008	Scratch built
Upgraded RC Truck	Gabriel Vaughan	Winter 2008	Scratch built
Reaction Time Comparitor	Devin Elliott	Winter 2008	scratch built
Traffic Light Controller	Wilson Sims	Winter 2008	scratch built
Guitar Pre-Amp	Ken Busler	Spring 2008	Scratch built from online info & parts list
The Linear Motor	Josh Halsey	Spring 2008	Scratch built
Mood Lamp	Jane Loftis	Spring 2008	scratch built
Project Arcade	Josh Doolin	Spring 2008	scratch built
Constant Current Load Power Supply	Stan Leeds	Spring 2008	scratch built
Digital Alarm Clock	Brian Brophy	Spring 2009	scratch built

Game	Eric Gibbons	Spring 2009	scratch built
Object Avoidance System for an R/C Car	James Kendall	Spring 2009	scratch built
Laser Light Show	Jason Thomas	Spring 2009	kit
Ion Ray Gun	Arthur Sheperd	Fall 2009	Kit
Network Communications	Jeffrey Young	Fall 2009	work project
Microwave computer	Jill Curtis	Fall 2009	scratch built
Voice Changer	Matthew Zacharias	Fall 2009	kit
Portable wireless alarm system	Ronald Dexter	Fall 2009	scratch built
Martian Micro-Rover Robot Kit	Dan Smith	Unknown	Kit
Cybervox	Mitchell Davis	Unknown	Scratch built from online info & parts list
Electronix Semiconductor Analyzer	Neil Reigelsperger	Unknown	Kit
AM/FM Radio	Nathan Binkley	Unknown	Kit
Electrostatic Voltage Probe	Meria Ardiyani	Unknown	Scratch built from online info & parts list
Power Amplifier	Jeremiah Whitsel	Winter 2009	Kit
Superhetrodyne AM Radio	Hernan Paulet	Winter 2009	Kit
Power Monitor	Myanganbayer Nyamdorj	Winter 2009	Kit and LabVIEW
50 Function Meter	Frank Balogh	Winter 2009	Kit
MPG display	Caleb Still	Winter 2009	scratch built
Car Alarm	Charles Sizemore	Winter 2009	kit
Micro-KIM Single Board Computer	Tracy Nash	Spring 2009	Kit
Grid Connected Wind Turbine	Jason Pickett	Spring 2009	Kits
Fiber optic transmitter and receiver	Tim Dawson	Spring 2009	Kits
Digital Alarm Clock	Brian Brophy	Spring 2009	Scratch built and LabVIEW
Voice Changer	Eric Hauer	Spring 2009	Kit
Daisy MP3 Player	Robert Murray	Fall 2009	Kit
Printer Switch Box	Greg Froelich	Fall 2009	Scratch built
Computer Build	Curtis Babio	Winter 2010	parts
Guitar Pre-Amp FM Transmitter	Michael Partin	Winter 2010	kit
Alarm System	Timothy Elton	Winter 2010	kit
PIC Chip Frequency Counter	John Klyce	Winter 2010	Kit
PC Power Supply Conversion	Mark Doty	Winter 2010	modification to existing power supply
Autonomous Tracked Vehicle	Josh Abner	Spring 2010	Interfaced various kits
The Beetle	Jackie Holmes Jr.	Spring 2010	Kit
Thermostat Control Circuit	Kevin Armstrong	Spring 2010	Did not complete

Obstacle-Avoiding Robot	Bernard Joseph	Spring 2010	kit
LED Mood Lamp	Chris Oda	Spring 2010	scratch built
Theremin	Heather Edmondson	Spring 2010	kit
Sound card oscilloscope	Mactar Mbengue	Spring 2010	kit
Beat Frequency Oscillator Metal Detector	Michael Matherne	Spring 2010	scratch built
Computer DVR	Paul Kirchner	Spring 2010	parts
Wah Guitar Pedal	Justin Fry	Unknown	Kit
AC/DC Power Supply and Function Generator	Patrick Mann	Spring 2010	Kit
50 Function Meter	Philip Braaksma	Spring 2010	Kit
Digital Microscope	Gene Horwitz	Fall 2010	Scratch built

Binary Clock	Sara Bobb	Spring 2011	scratch built
End Cap Tester	Joyce Dziedic	Spring 2011	scratch built
Home Alert System	Charles Vittatow	Spring 2011	scratch built
OBD RS232 Interface	Heath Minor	Spring 2011	kit
Pong Game	Jorge UrenaSorita	Spring 2011	scratch built
Resistor Color Code Game	Gerardo Puerto	Spring 2011	scratch built
Ice Tube Clock	Ron Backhaus	Spring 2011	kit
Tube Amplifier	Jesse Mason	Spring 2011	scratch built
Wind Energy System	Sean Miller	Spring 2011	
AM Radio	Jamey Bowen	Fall 2011	scratch built
Stairway to Heaven Game	Michael Bowman	Fall 2011	kit
LCD Interface	Jason Angel	Winter 2011	scratch built
Practice Tree	Jeff Bair	Winter 2011	scratch built
Solar Tracking Panel	Charles Scott Winn	Winter 2011	scratch built
Voice Activated RC	Chad Harris	Winter 2011	
Laser Beam Communicator	Jessica Woods	Winter 2012	kit
AM FM Radio	Paul Lamm	Winter 2012	kit
Guitar Effects Pedal	Sean Brothers	Winter 2012	kits
MP3 Player	Craig Stevenson	Winter 2012	
Power Supply Function Generator	Aaron Bussert	Winter 2012	
Digital Multimeter	Shawn Dues	Winter 2012	kit
Heart Monitor	Traci Bester	Winter 2012	kit

Wireless Datalink	Dan O'Brian	Winter 2012	
Oversize Keypad	Matt Thaxton	Fall 2012	scratch built
Guitar Amp with Distortion	Matt Kaveney	Spring 2013	scratch built
Singing Alarm Clock	Stephen Eldridge	Spring 2013	scratch built
Random Light Timer	Larry Anderson	Fall 2013	scratch built
Digital Thermostat	Anthony Houser	Spring 2014	scratch built
AM Receiver	Alassane Ndiya	Spring 2014	scratch built
Raspberry Pi Lock	Brad Bateson	Spring 2014	scratch built
Room Alarm	Chandra Blackwell	Spring 2014	scratch built
Surveillance Robot	Ryan Deel, Rick Hartman	Spring 2014	scratch built
Binary Clock	Jonathan Bell	Spring 2014	scratch built
Remote Control Car	Jason Gauthier	Spring 2014	
Guitar Distortion Pedal	Kyle Kittel	Spring 2014	
Guitar Tube Amp	Patrick Caplinger	Spring 2014	
Battery Rejuvenator	Roy Howard	Spring 2014	scratch built
Mechanical Keyboard	Shaun Humphrey	Spring 2014	scratch built
Morse Code decoder	Shawn Lawson	Spring 2014	
Electric Cannon	Matt Bright	Spring 2015	scratch built
Universal varying power supply	Ryan Delacruz	Spring 2015	scratch built
Portable iPod charger	Nickolas Grant	Spring 2015	scratch built
Bass booster	Raesean Jones	Spring 2015	
Vision express	Eric Bradley	Spring 2015	
Dual furnace controller	Jeff Lipscomb	Spring 2015	scratch built
Microphone preamp	Bob Prenger	Spring 2015	
Electric scooter	Chris Lehky	Spring 2015	
Reverse geocache	Jason Presley	Spring 2015	

Resources

www.makezine.com

www.praireturbines.com

www.windpower.org

www.saunalahti.fi/elepa;/mootori/gener_e.html

www.mariahpower.com

<http://www.epemag3.com/>

<http://www.generalguitargadgets.com/projects/20-modulationecho/124-dh-pitch-shifter>

<http://www.electronkits.com>