

IMDL/MIL Robot Demo Descriptions

Media/Guest Robot Demos: Mon, December 6, 2010, 1:00pm in the NEB Harris Rotunda

IMDL = Intelligent Machines Design Laboratory

This info available at http://mil.ufl.edu/imdl/robot_info_f10.htm

MIL = Machine Intelligence Laboratory

Parking info at: <http://mil.ufl.edu/imdl/parking.html>

IEEE = Institute of Electrical and Electronic Engi

More pictures and videos will be available at: http://mil.ufl.edu/5666/papers/IMDL_Report_Fall_10/

Designer's Name	Robot's Name	Robot Description	Affiliation	Website URL	#
William Patterson	Hexy and the Swarm	Hexy and his Swarm are a swarm of Hexapod robots. Each are capable of avoiding obstacles and of locating a home base where they can self charge when necessary. They will communicate with each other and a master to accomplish swarm tasks.	IMDL	http://plaza.ufl.edu/wmcpatterson/	1
Chester Udel	MIRAG	MIRAG (Musically Intelligent Robotic Algorithmic Guitar) is a guitar-playing musically-autonomous robot that is made up of 4 or 5 monocords. Each monocord has its own pair of strings tuned in octaves to a particular pitch, motor, belt, tuning keys, and servos. The music MIRAG will make is based on environmental sensors. This info will be used create real-time musical improvisations by determining scale, tonic, tempo, and other parameters that determine musical "style."	IMDL	http://grove.ufl.edu/~cudell/IMDL.php	2
Joshua Weaver	SPDR	SPDR (Security Patrol and Defense Robot) is a 6-legged hexapod security robot. SPDR's main directive is to detect and warn it's owner of a possible intruder.	IMDL	http://sites.google.com/site/epsilonorionrobotics/	3
Jheanell Tabana	Recycle-Bot	Recycle-Bot collects recyclable beverage containers. However, it only collects the containers that are empty, and leaves the ones that contain fluid.	IMDL	http://plaza.ufl.edu/jheanell/IMDL.htm	4
Nathan Weibley	FetchGunner	FetchGunner (FG) is an autonomous playtime robot for Gunner, a 2 year old German shorthaired pointer. FetchGunner locates a dropped tennis ball which it subsequently retrieves and shoots for Gunner to go fetch. When Gunner returns FG detects his presence and vocally instructs him to drop the ball for another round of fetch.	IMDL	http://imdl.nate-online.com/	5
Anup Parikh	Minesweeper	Minesweeper is a mine locating and deactivating robot. It uses a camera to "see" the IR beacons located on each mine, and disables the mine with a magnetic field.	IMDL	https://sites.google.com/site/minesweeperbot/	6
Cheenu Madan	Cuppy	Cuppy job is to find and move red plastic cups. Once Cuppy finds several cups, she will carry the cups to a disposal area where the cup must be removed by another agent.	IMDL	http://www.cise.ufl.edu/~cheenu/imdl/	7
Joseph Magaña	Safesweep	Safesweep can locate small metal debris from runway or road surfaces and sweep it up. Safesweep drives around until it finds metal, at which point he activates a rolling brush and drives over the debris to collect it.	IMDL	https://sites.google.com/site/imdlsafesweep/	8
Justin Lu	Balloon Buster	Balloon Buster scans an area for balloons. When she finds one, she heads towards it and pops it.	IMDL	https://sites.google.com/site/theballoonbot/	9
Long Vong	Buzz	Buzz goals are to wake a person and to keep the person awake. At a set time, Buzz will wake up and sound an alarm; to prevent the person from just hitting the snooze button, Buzz will run around the room. The person will have to get out of bed to catch Buzz. If he does, then Buzz will track and follow the person until she leaves the room.	IMDL	http://longvong.wordpress.com/	10
		FireBug's primary function is to locate a flame source while			

Marc Milks	FireBug	avoiding obstacles. Once found, FIREBUG will deliver it's liquid payload to the flame and accomplish either an extinguishing or pyrotechnic goal.	IMDL	http://www.wanderingbuddha.com/firebug	11
Alexis Mesa	Ronic	Ronic will search for an empty cup. If the cup is the correct color, Ronic will refill the cup and then start looking for another empty cup. If the cup is not the correct color, Ronic will NOT refill the cup.	IMDL	http://www.wix.com/amesaavila/ronic	12
Mary Richeson	Rico the Recycler	Rico will pick up recyclables and sort them according to weight.	IMDL	http://plaza.ufl.edu/ukraine8/8632/Dark_Flash/page.html#	13
Darsan Patel	LC-113	LC-113 is a laser chasing robot, controlled by a laser pointer. To control the her, provide a path by shining the laser on the ground.	IMDL	https://sites.google.com/site/darsanpatelr/home/projects/lc-113	14
Michael Boyco	The Librarian	The Librarian's purpose is to enforce silence. The Librarian wanders around peacefully until a human speaks too loudly. The Librarian then tracks down the offender and fires a <i>Silence-is-Golden</i> foam missile at them in order to remind them to speak with an indoor voice.	IMDL	https://sites.google.com/site/boycosautobots/	15
Miles Moody	Horus	Horus is a quadcopter UAV (unmanned aerial vehicle); his purpose is aerial reconnaissance and sensing. He can carry a camera or an array of sensors and associate pictures or sensor data to locations by tagging them with GPS coordinates. He can also follow an object carrying a GPS beacon and hover overhead.	IMDL	http://randomhacksofboredom.blogspot.com/p/quadcopter-robot-project.html	16
Jason Reeder	SeBAARD	SeBAARD is dog that loves to annoy his owner. He wakes up and starts searching for his owner. SeBAARD will then approach his owner and then commence barking in an annoying manner. The owner is able to stop SeBAARD's barking by using a dog training whistle. When SeBAARD hears the whistle, we will whine and then run away.	IMDL	https://sites.google.com/site/sebaard/	17
Courtney Hayes	Robot Spotting	A group of robots will play tag. The objective of the game is for one of the robots is to identify and disable the others ones as they move around.	IMDL	https://sites.google.com/site/robotspotting/	18
Greg Brown	SVBot	SVBot uses two cameras to identify a target and its relative distance. SVBot then launches projectile towards the target using an arched trajectory to prove it has calculated the distance correctly.	IMDL	http://sites.google.com/site/stereovisionbot/	19
Mahbub Shahalam	Sid the Spider	Sid the Spider is a hexapod robot that will respond to different voice commands like "twist", "roam", "dance", and "move forward". He will be able to roam about freely avoiding obstacles.	IMDL	http://www.cise.ufl.edu/~mahbub/imdl/	20
Mathew Johnson	Tailgator's Best Friend	Tailgator's Best Friend will carry a cooler while follow his owner. TBF will have sensors to avoid obstacles and will open the cooler upon hearing a clap.	IMDL	http://plaza.ufl.edu/mjohnso8/TailgatorsBestFriend.htm	21
Devron Lee	Atheris	Atheris is a high-speed autonomous ground vehicle for reconnaissance and tactical missions.	IMDL	http://atheris.pixelgeko.com/	22
David Register	BevBot	BevBot is an autonomous beverage-retrieving robot. BevBot receives a drink order from a user, navigates to a bin from which it retrieves the beverage, and returns with the beverage to the location of the order.	IMDL	http://plaza.ufl.edu/dregister/Index.htm	23
Hunter Longshore	nPi	The nPi swarm project is an investigation into the design and performance of a multi-agent autonomous system. The project includes the design and construction of two or more small-scale autonomous robots with integrated networking	IMDL	https://sites.google.com/site/npidevelopment/	24

capabilities, as well as a network management layer for handling the coordination of global behaviors.

Jeremy Fowers	Sentry Wizard	Sentry Wizard's purpose is to do real time motion tracking of unmarked, moving objects in everyday environments using a powerful embedded FPGA. Once a moving target is acquired, its future path will be predicted and the robot will attempt to hit it with a projectile.	IMDL	https://sites.google.com/site/sentrywizard/	25
Evan Wall	Seek and Destroy	Seek and Destroy locates a target and then attempts to hit the target with a plastic ball.	IMDL	http://www.cise.ufl.edu/~ewall/imdl/	26
Justin Montgomer	HexaBob	HexaBob has six legs that have 6 degrees of freedom for each leg. He will be able to detect a colored object and grab it with pincers attached to the front.	IMDL	http://vertigonimdl.wordpress.com/	27
Erik Stegman	P\$ME	P\$ME is a one-of-a-kind fully-autonomous used beverage disposal specialist. Don't want to get up off that couch? Don't worry! Simply call over P\$ME, hand him your used beverage, and watch your dirty work be done for you.	IMDL	http://pmedisposal.webs.com/	28
Tim Martin, Paul Launier, ...	UF IEEE Rescue Robot	The robot will locate and report the location and status of victims trapped in "building."	IEEE	http://orgs.tntech.edu/ieee/SECON2011/rules.pdf	29
Mike Franks, Colin Watson, Andres Vargas	UF Robot Lawnmower	The robot and team will compete for the second consecutive year in June 2011 at the 8th Annual ION (Institute of Navigation) Robotic Lawn Mower Competition in Ohio.	MIL		30
Patrick Walters, Devin Hughes, Nic Fischer, Gautam Dash, Andres Vargas, John Phillips, Jheanell Tabana, Dana Massaro, Matt Thompson, Eric Jeffers, ...	SubjuGator	SubjuGator is an autonomous submarine. The SubjuGator you will see is a past world champion and is one of the 3 world champion SubjuGator robots designed in the last 6 years at UF.	MIL	http://subjugator.org/	31