

## Appendix 0

AbstractButton()	ExtraButtons()	analog_et()
AbstractButton_swigregister()	ExtraButtons_hide()	any_button()
AbstractTextButton()	ExtraButtons_isShown()	ao()
AbstractTextButton_swigregister()	ExtraButtons_setShown()	b_button()
AccelX()	ExtraButtons_show()	b_button_clicked()
AccelX_swigregister()	ExtraButtons_swigregister()	battery_charging()
AccelY()	HIGH_RES	beep()
AccelY_swigregister()	Hsv()	bk()
AccelZ()	Hsv_swigregister()	black_button()
AccelZ_swigregister()	IdButton()	block_motor_done()
Acceleration()	IdButton_swigregister()	bmd()
Acceleration_calibrate()	IntSensor()	c_button()
Acceleration_swigregister()	IntSensor_swigregister()	c_button_clicked()
Acceleration_x()	LOW_RES	camera_close()
Acceleration_y()	MED_RES	camera_load_config()
Acceleration_z()	Motor()	camera_open()
Analog()	Motor_swigregister()	camera_open_at_res()
Analog10()	Mutex()	camera_open_device()
Analog10_swigregister()	Mutex_swigregister()	camera_update()
Analog8()	NATIVE_RES	clear_motor_position_counter()
Analog8_swigregister()	RGB	cmpc()
Analog_swigregister()	Rgb()	console_clear()
BGR	Rgb_swigregister()	create_advance_led()
BackEMF()	Servo()	create_clear_serial_buffer()
BackEMF_swigregister()	Servo_swigregister()	create_connect()
Battery()	ShortSensor()	create_connect_once()
Battery_isCharging()	ShortSensor_swigregister()	create_cover()
Battery_powerLevel()	Thread()	create_cover_dock()
Battery_rawPowerADC()	Thread_swigregister()	create_demo()
Battery_swigregister()	UnsignedShortSensor()	create_digital_output()
Baud115200	UnsignedShortSensor_swigregister()	create_disconnect()
Baud57600	a_button()	create_drive()
BoolSensor()	a_button_clicked()	create_drive_direct()
BoolSensor_swigregister()	accel_calibrate()	create_drive_straight()
Config()	accel_x()	create_full()
Config_load()	accel_y()	create_load_song()
Config_swigregister()	accel_z()	create_low_side_drivers()
Digital()	all	create_passive()
Digital_swigregister()	alloff()	create_play_led()
	analog12()	create_play_song()

create_point2()	get_create_bay_AI()	t()
create_point3()	get_create_bay_DI()	get_create_rlightbump()
create_power_led()	get_create_cwdrop()	get_create_rlightbump_amt()
create_pwm_low_side_drivers()	get_create_distance()	get_create_rwdrop()
create_read_block()	get_create_infrared()	get_create_song_number()
create_rectangle()	get_create_lbump()	get_create_song_playing()
create_safe()	get_create_lcliff()	get_create_total_angle()
create_spin_CCW()	get_create_lcliff_amt()	get_create_vwall()
create_spin_CW()	get_create_lclightbump()	get_create_wall()
create_spin_block()	get_create_lclightbump_amt()	get_create_wall_amt()
create_spot()	get_create_lfcliff()	get_digital_output()
create_start()	get_create_lfcliff_amt()	get_digital_pullup()
create_stop()	get_create_lflightbump()	get_digital_value()
create_write_byte()	get_create_lflightbump_amt()	get_extra_buttons_visible()
cvar	get_create_llightbump()	get_key_state()
disable_servo()	get_create_llightbump_amt()	get_motor_done()
disable_servos()	get_create_lwdrop()	get_motor_position_counter()
enable_servo()	get_create_mode()	get_mouse_left_button()
enable_servos()	get_create_normalized_angle()	get_mouse_middle_button()
extra_buttons_hide()	get_create_number_of_stream_packets()	get_mouse_position()
extra_buttons_show()	get_create_overcurrents()	get_mouse_right_button()
fd()	get_create_play_button()	get_object_area()
freeze()	get_create_rbump()	get_object_bbox()
freeze_halt()	get_create_rcliff()	get_object_bbox_brx()
get_analog_pullup()	get_create_rcliff_amt()	get_object_bbox_bry()
get_camera_element_size()	get_create_rclightbump()	get_object_bbox_height()
get_camera_frame()	get_create_rclightbump_amt()	get_object_bbox_ulx()
get_camera_frame_row()	get_create_requested_left_velocity()	get_object_bbox_uly()
get_camera_height()	get_create_requested_radius()	get_object_bbox_width()
get_camera_pixel()	get_create_requested_right_velocity()	get_object_center()
get_camera_width()	get_create_requested_velocity()	get_object_center_column()
get_channel_count()	get_create_rfcliff()	get_object_center_row()
get_code_num()	get_create_rfcliff_amt()	get_object_center_x()
get_create_advance_button()	get_create_rflightbump()	get_object_center_y()
get_create_battery_capacity()	get_create_rflightbump_amt()	get_object_centroid()
get_create_battery_charge()		get_object_centroid_column()
get_create_battery_charging_state()		get_object_centroid_row()
get_create_battery_current()		get_object_centroid_x()
get_create_battery_temp()		get_object_centroid_y()
get_create_battery_voltage()		get_object_confidence()
get_create_baud_rate()		get_object_count()

get_object_data()	msleep()	set_create_baud_rate()
get_object_data_length()	mtp()	set_create_distance()
get_pid_gains()	mutex_create()	set_create_normalized_angle()
get_servo_enabled()	mutex_destroy()	set_create_total_angle()
get_servo_position()	mutex_lock()	set_digital_output()
getpwm()	mutex_trylock()	set_digital_pullup()
gmpc()	mutex_unlock()	set_digital_value()
graphics_blit()	off()	set_extra_buttons_visible()
graphics_blit_enc()	pixel()	set_pid_gains()
graphics_blit_region()	pixel_swigregister()	set_servo_enabled()
graphics_blit_region_enc()	point2()	set_servo_position()
graphics_circle()	point2_swigregister()	set_x_button_text()
graphics_circle_fill()	point3()	set_y_button_text()
graphics_clear()	point3_swigregister()	set_z_button_text()
graphics_close()	power_level()	setpwm()
graphics_fill()	power_level_life()	shut_down_in()
graphics_line()	power_level_lipo()	side_button()
graphics_open()	power_level_nimh()	side_button_clicked()
graphics_pixel()	publish()	sys_time()
graphics_rectangle()	rectangle()	thread_create()
graphics_rectangle_fill()	rectangle_swigregister()	thread_destroy()
graphics_triangle()	right_button()	thread_start()
graphics_triangle_fill()	seconds()	thread_wait()
graphics_update()	set_a_button_text()	wait_for_light()
halt()	set_analog_pullup()	x_button()
left_button()	set_auto_publish()	x_button_clicked()
mav()	set_b_button_text()	y_button()
motor_power()	set_c_button_text()	y_button_clicked()
move_at_velocity()	set_camera_config_base_path()	z_button()
move_relative_position()	set_camera_height()	z_button_clicked()
move_to_position()	set_camera_width()	
mrp()		

## Appendix 1

Run	Team C	Team Python
1	1:07	1:09
2	1:02	1:01
3	1:21	1:13
4	0:51	1:02
5	1:41	1:06
6	1:16	1:04
7	1:05	0:57
8	1:12	1:07
9	1:57	1:10
10	1:11	1:18

Calculation on Texas Instruments TI-Nspire CX CAS:

```
tTest_2Samp {67,62,81,51,101,76,65,72,117,71},{69,61,73,62,66,64,57,72,70,83},1,1,1,0: stat.results
```

```
["Title","2-Sample t Test"]
```

```
["Alternate Hyp"," $\mu_1 > \mu_2$ "]
```

```
["t",1.49037]
```

```
["PVal",0.08239]
```

```
["df",10.7857]
```

```
[" $\bar{x}_1$ ",76.3]
```

```
[" $\bar{x}_2$ ",66.7]
```

```
["sx1",19.4196]
```

```
["sx2",6.14727]
```

```
["n1",10.]
```

```
["n2",10.]
```