	A	B	C	D	E	F
1	TurtlesimBookReferences ROS Robotics By Example			9/29/2019		
2	**Turtlesim**	Package/node	Topic/ Service	Message	Description	Book Page
3		**turtlesim**			Display a Turtle	
4	roscore		Parameter Server	log files	Start Master	Pg 19
5		$ rosrun turtlesim <node_name>			Start Node	Pg 20
6						
7			/turtle1/color_sensor	turtlesim/Color (Pub)	Screen r, g, b	Pg 29-30
8	**Move Turtle**					
9	rosrun	turtlesim_node	/turtle1/cmd_vel	geometry_msgs/Twist	Linear/angular velocity	Pg26-27
10	rostopic pub		/turtle1/cmd_vel	geometry_msgs/Twist	Linear/angular velocity	Pg 27
11	rosservice		/turtle1/teleport_	turtlesim/TeleportAbsolute		Pg 30-32
12			absolute or relative	turtlesim/TeleportRelative		
13	rostopic echo		/turtle1/pose	turtlesim/Pose (Pub)	x, y position, Θ (angle),	Pg31
14						
15	**Example**	rostopic pub /turtle1/cmd_vel geometry_msgs/Twist -r 1 -- '[2.0, 0.0, 0.0]' '[0.0, 0.0, 1.8]'				Pg 27
16						
17	**Keyboard & Joystick**					
18	rosrun	turtle_teleop_key	/turtle1/cmd_vel		Keyboard Control	Pg28
19						
20	Python	/joy /turtlesim_joy	/turtle1/cmd_vel	sensor_msgs/Joy	Python Joystick Control	Pg 356-366
21				geometry_msgs/Twist		
22	Python turtlesim_joy.py; move_circle.py					Pg 362-363
23	C++	http://docs.ros.org/kinetic/api/turtlesim/html/draw__square_8cpp_source.html				
24						
25	rqt_plugins	message publisher /turtle1/cmd_vel		geometry_msgs/Twist		Pg 107
26		rqt_robot_steering /turtle1/cmd_vel		geometry_msgs/Twist		