

CLAIMS

1. An unmanned fire fighting vessel or robot for shallow water fire fighting operations at sea or on land comprising a flotation body with wheels
2. The robot in Claim 1 is further connected to a mother vessel via a fire hose that carries high pressure water from a high pressure pump located onboard the mother vessel.
3. The robot of any one of the preceding claims , wherein the flotation body is of a special form such that it hydrodynamically stable on its own or when connected via the fire hose to the mother vessel both without and with water pressure in the fire hose, and will remain upright throughout when stationery or when it is being pushed through the water, and furthermore that the flotation body always moves in such a way as to remain on a straight course with little course correction.
4. The robot of Claim 3, wherein the flotation body also has 2 wheels attached externally and further adds to the buoyancy and stability of the body and where the wheels are used to drive the flotation body forward when the body is in very shallow waters or when the wheel has made contact with the ground and the flotation body is no floating or in contact with water.
5. The robot of anyone of the preceding claims wherein augmented weights are added or removed from the flotation body for stability and to improve handling
6. The robot of any one of the preceding claims wherein the motion of the flotation body through the water is caused by water from the fire hose entering the flotation body and emerging from two outlets at the rear of the body and where the difference in outlet flow causes the flotation body to alter its heading.
7. The robot of Claim 4, 5, 6 wherein the different speed of rotation of the wheels also causes the heading of the flotation body to change in direction.
8. The robot of anyone of the preceding claims wherein a special rotary valve is inside the flotation body and has two main channels linked to interconnected pipes in the flotation body connecting fire hose water inlet to the outlets for thrust or to the fire monitor for fire fighting.
9. The robot of Claim 7 wherein the rotary valve is rotated by a geared servo mechanism.
10. The robot of Claim 3 and 4 wherein the flotation body has at trim tabs under the body to prevent the robot from being pushed backwards when the fire monitor is turned on
11. The robot of anyone of the preceding claims wherein the central electronic and electrical power module controls the remote control functions of the fire monitor, the floodlights, headlights and the electro-optic system