**Subsystems: Rescue Robot**

The motion control system of Rescue robot will be composed of following parts:

1. STM32 control platform:

* Consists of power circuit, clock circuit, interface circuit and other components.
* Would be proper for the system because of: Cortex -M3 core, sufficient speed, three 12-bit ADCs, four 16-bit timer and supports std. communication interface like two I2C, three SPI etc.
* Controls the pre-programmed and manual movements (depending upon the detection of the situation). It detects the sensor signals from objects around to make appropriate movements. It helps to transmit the data signal to the operator and receives wireless command.

1. Wireless control:

* Focused for remote control of robot.
* Realized with a permission button to access and the microprocessor control the signals

1. Sensor Modules:

* Depending upon the processor and rescue range (upto 100cm), (infrared) sensor is selected for detecting the obstacles. Other sensors for heat, temp, sound will be contained.

1. DC motor (feasible to change direction, forward and backward both)
2. Power Regulator
3. Feedback encoderDiagram

   Description automatically generated