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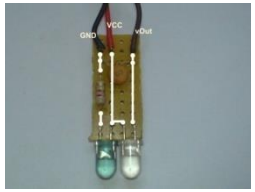
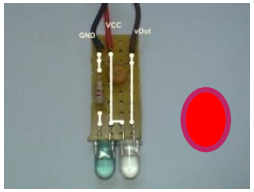
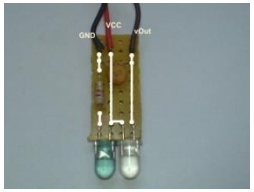
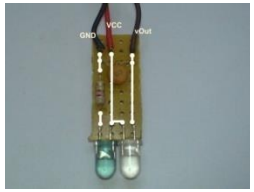
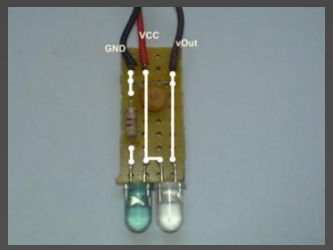
ROBEX

ROBEX

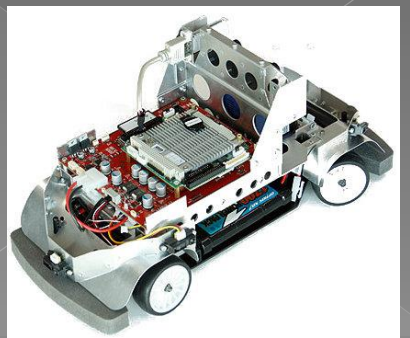
ROBEX IS A ROBOT WHICH EXTINGUISHES FIRE DURING AN EMERGENCY

			
ROOM 1	ROOM 2	ROOM 3	ROOM 4

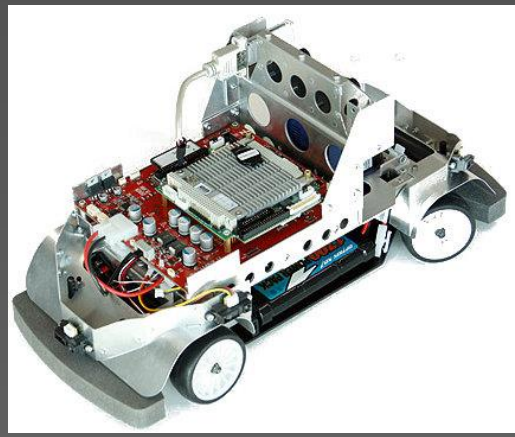


IR emitted

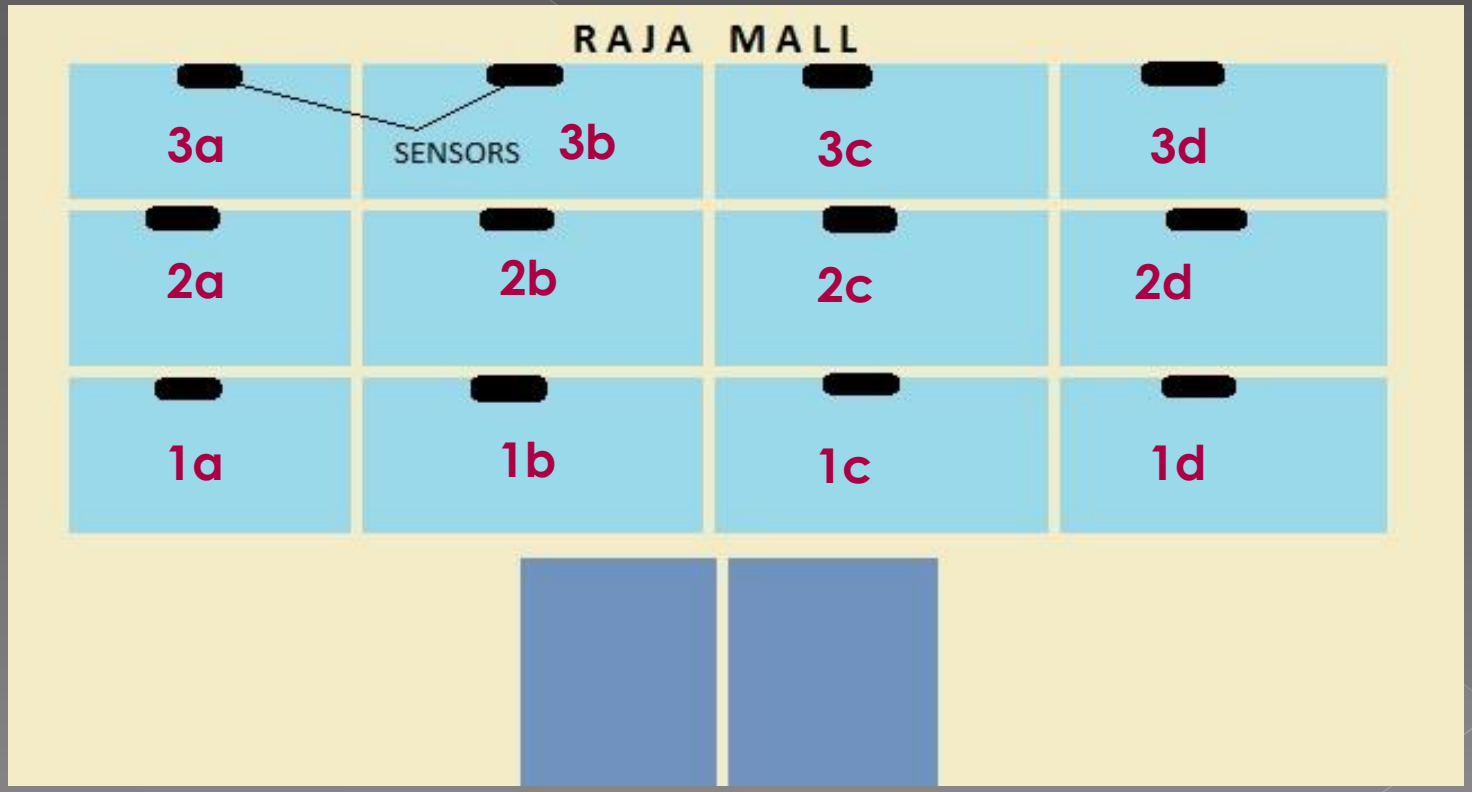
RF signals



ROBEX detects IR emitted by flame and moves towards it



IR sensors are fixed in all rooms of the office



Now fire breaks out in room **2c**

Detection of IR

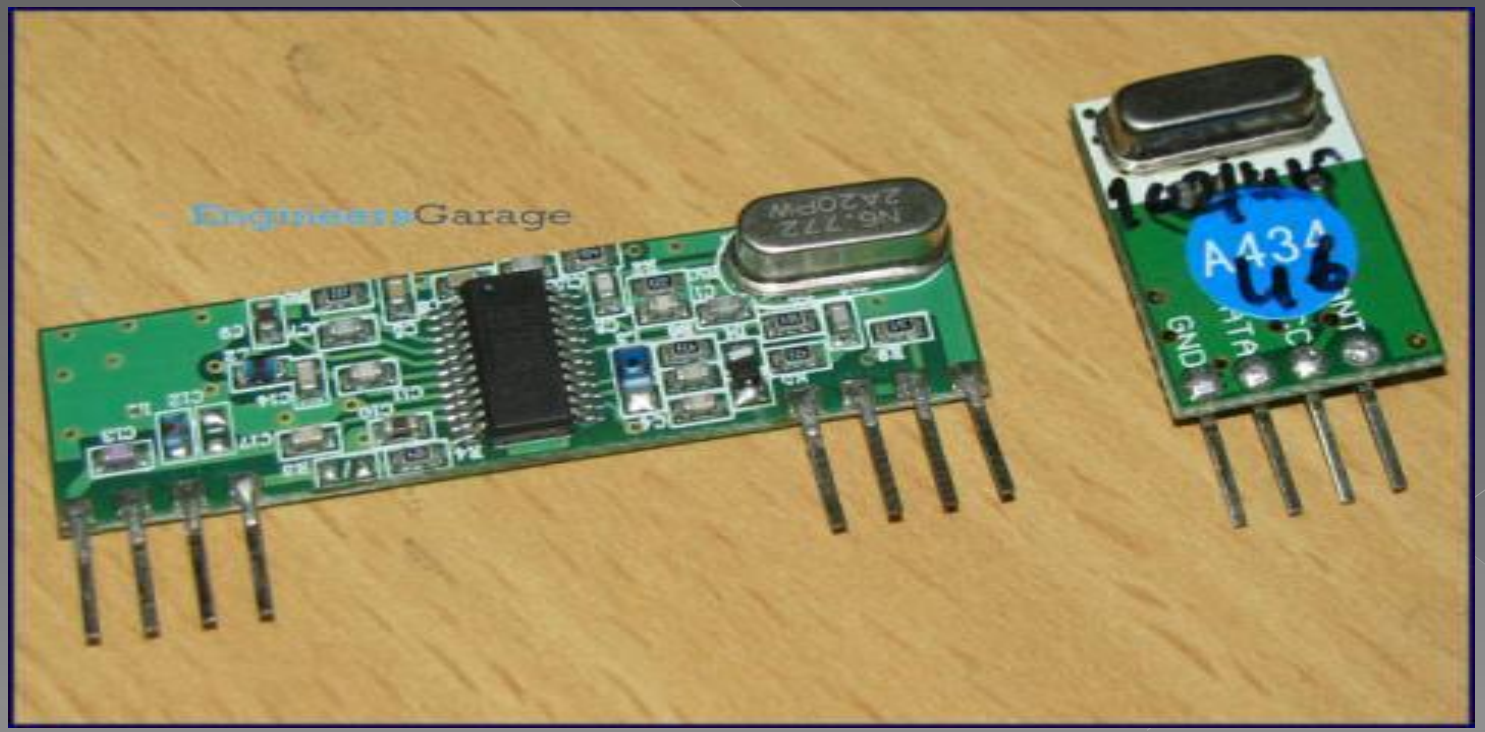
- The IR rays emitted by the flame is detected by the IR sensor in room 2c.

RF module 1 transmits RF signals

- The RF module1 with RF encoder which is coupled with the IR sensor sends the address of the room through RF signals to ROBEX which can be placed at a proximity of 200 meters or nearly 1/5th of a KM.

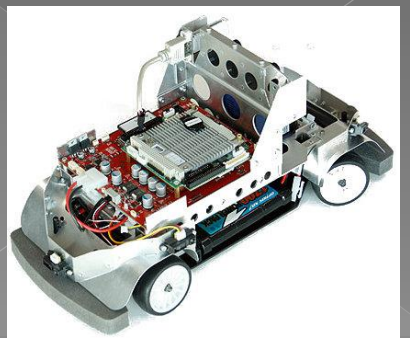
RF module 2 in Robex receives RF signals

- Now the RF module 2 with the corresponding decoder in ROBEX receives the RF signals.



ROBEX reaches the room

- As soon as the RF is received the ROBEX reaches the room in no time where the fire has broken out using the address received by the RF module 2.



ROBEX searches for the fire

- As soon as the robex reaches the room the IR sensor embedded in it starts searching for the largest fire as it emits large amount of IR using the IR sensor fixed in ROBEX.

ROBEX extinguishes largest fire

- Robex moves near the flame and the thermister fixed in it detects the flame and stops in front of the flame.
- ROBEX then extinguishes it using CO_2 or any other extinguisher.

ROBEX again searches for fire.

- Once ROBEX has extinguished the largest flame it starts rotating about its center, searching for any further developments in flame.

ROBEX extinguishes fire

- After detecting the other flames ROBEX extinguishes all the other flames sequentially.

TRUTH TABLE OF WORKING

RF RECIEVER	THERMISTOR	MOVEMENT	EXTINGUISHER	SEARCHING
0	0	0	0	0
0	1	0	1	0
1	0	1	0	1
1	1	0	1	0

FEATURES OF ROBEX

- Since we have used RF encoder –decoder no:HT12e/HT12d , 4096 combinations are possible. So ROBEX can be used in mega malls and offices of about 4000 rooms to extinguish fire.
- The range of RF is 200 metres or 1/5th of a kilometre. So it can be used even in larger malls and multi national company offices.
- ***The cost of ROBEX is 5000 only but the cost of HUMAN LIFE IS INVALUABLE.***