

Red
&
Rat

100



Rats

Only stainless steel rat is able to survive in modern city jungles © Harry Harrison



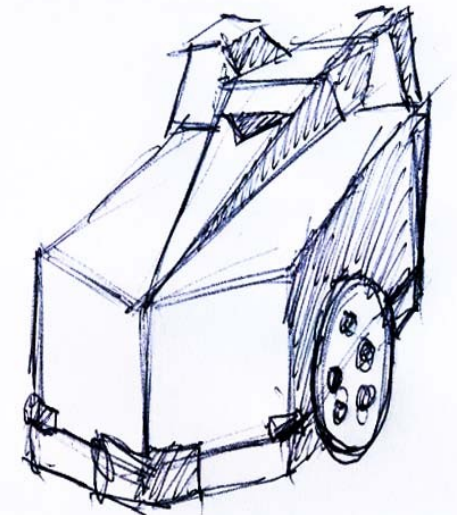
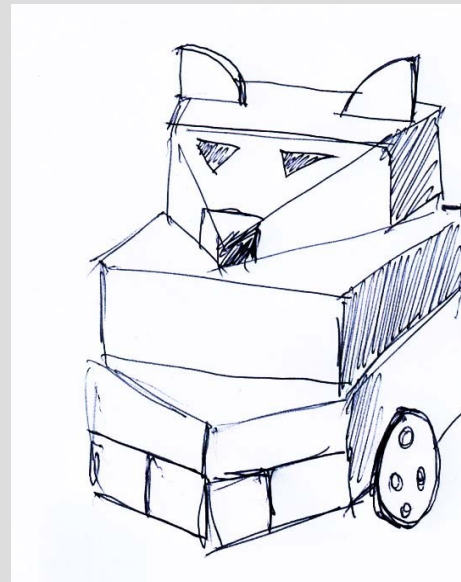
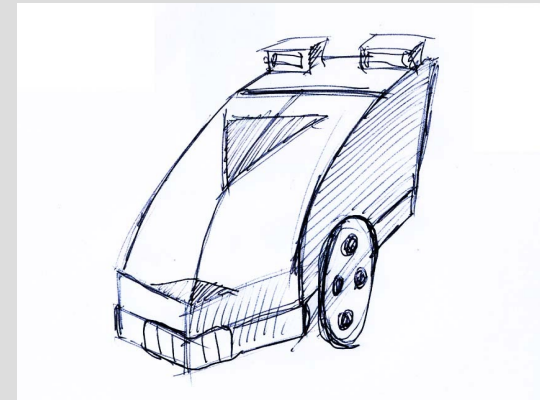
- They exist without permission
 - They are hated, hunted and persecuted
 - They live in quiet desperation among the filth
 - And yet they are capable to bring entire civilisations to their knees
- © Banksy

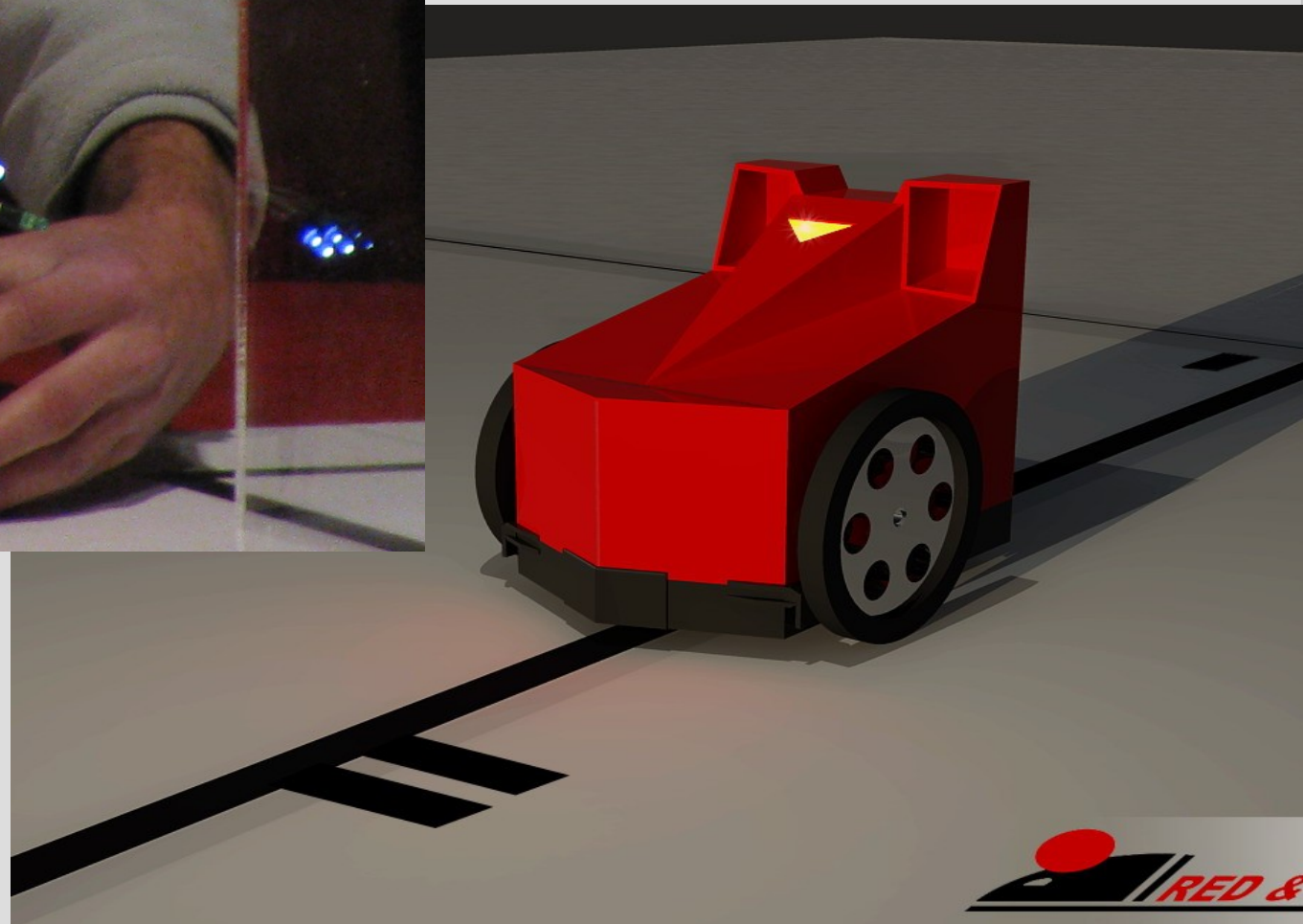
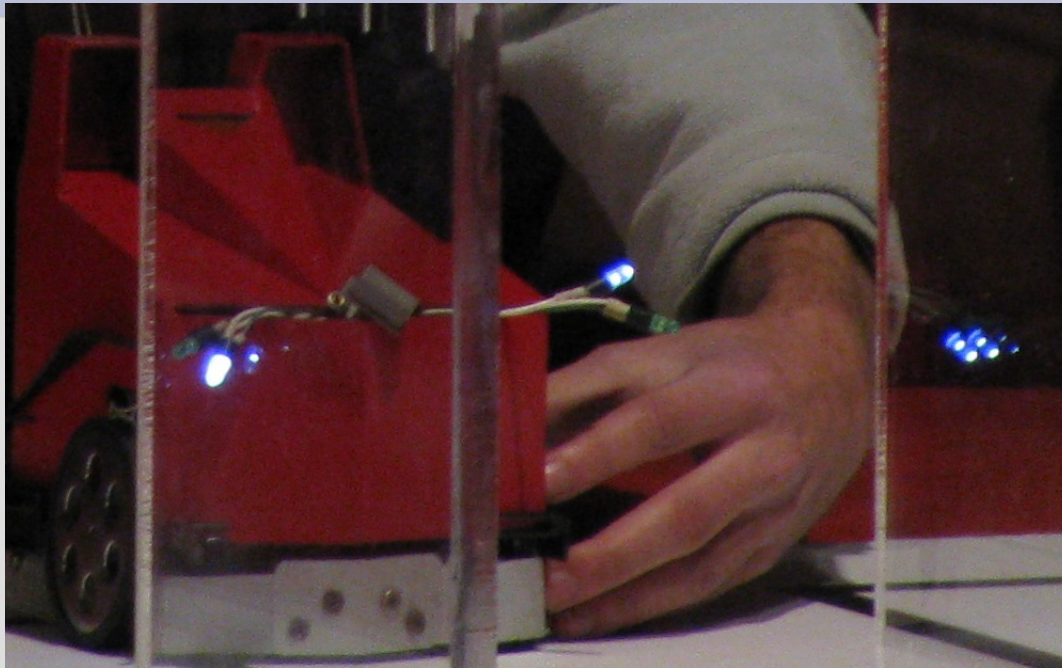
© Banksy

Simple design

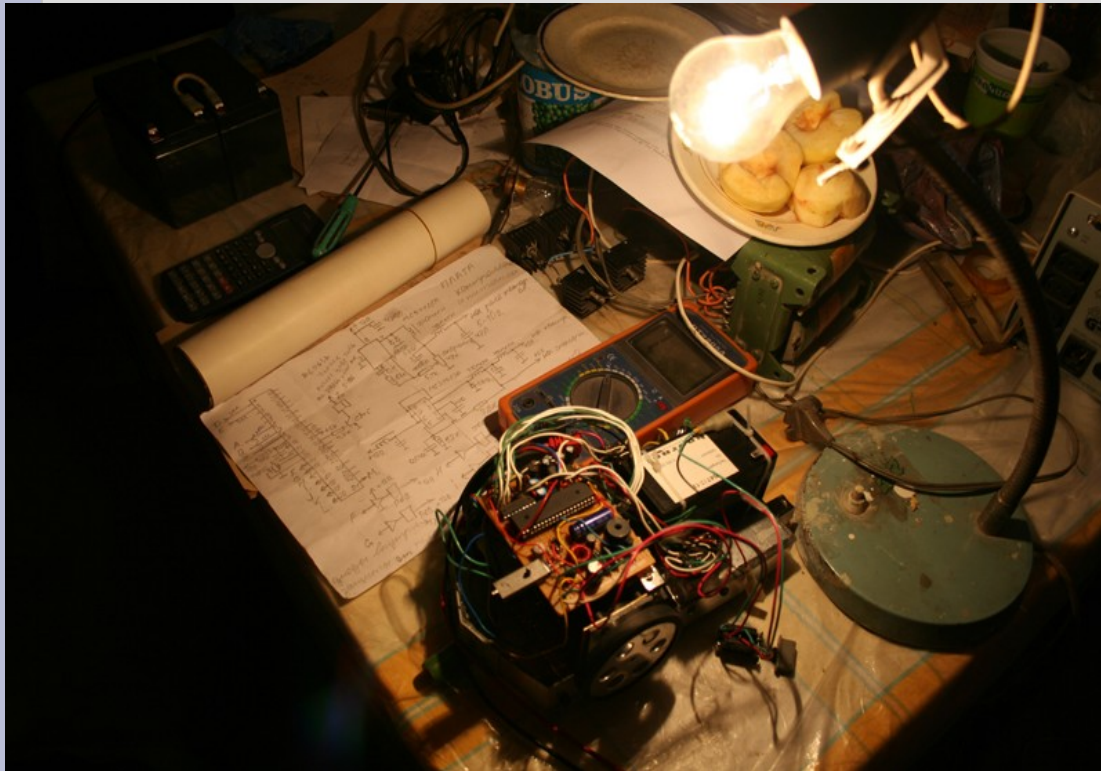
make it as simple as possible but not simpler © A. Einstein

- Simple design (do not use canon to shoot a bird)
- Completely handmade
- Home-made technologies (made on the knees)



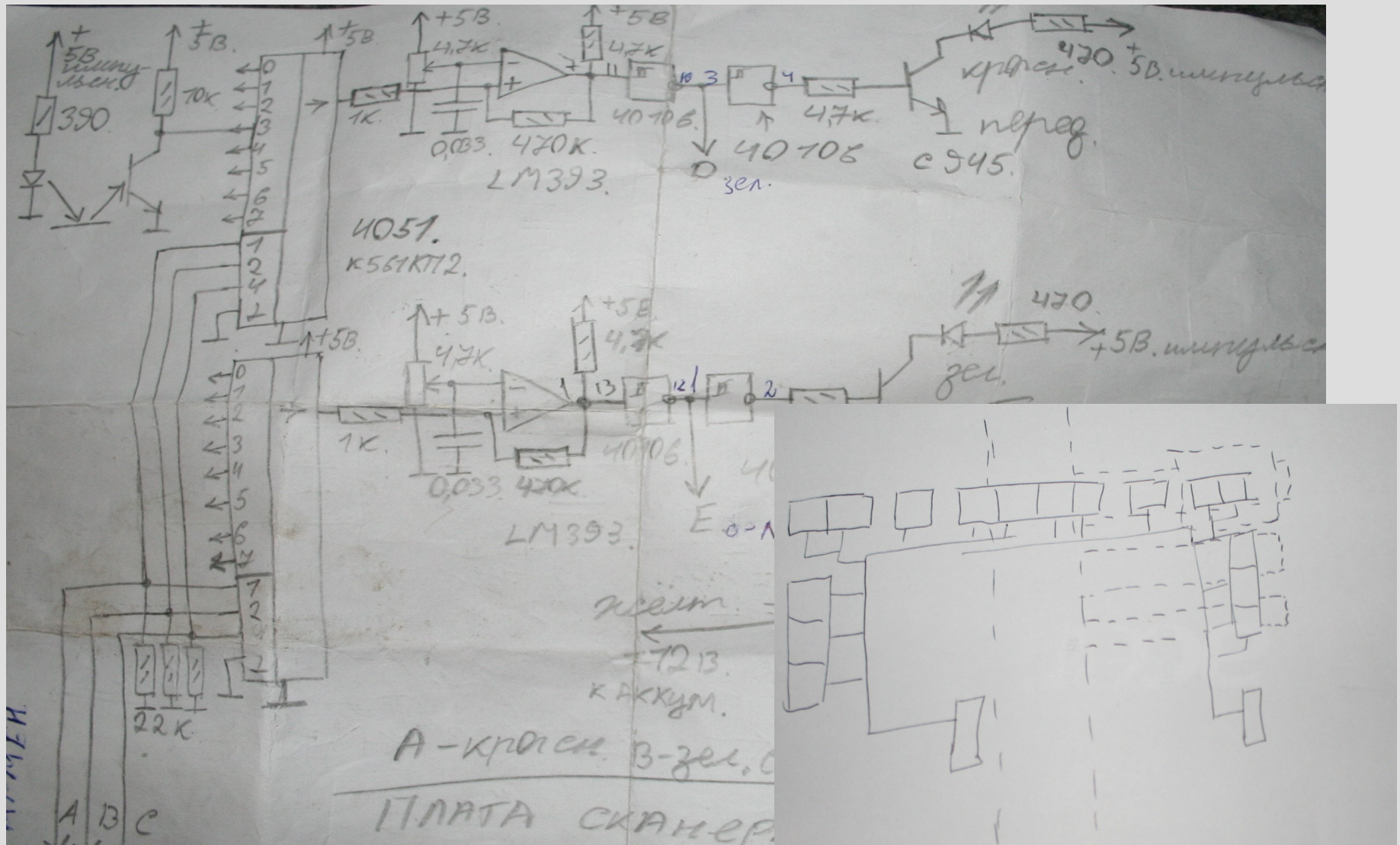


Hw implementation



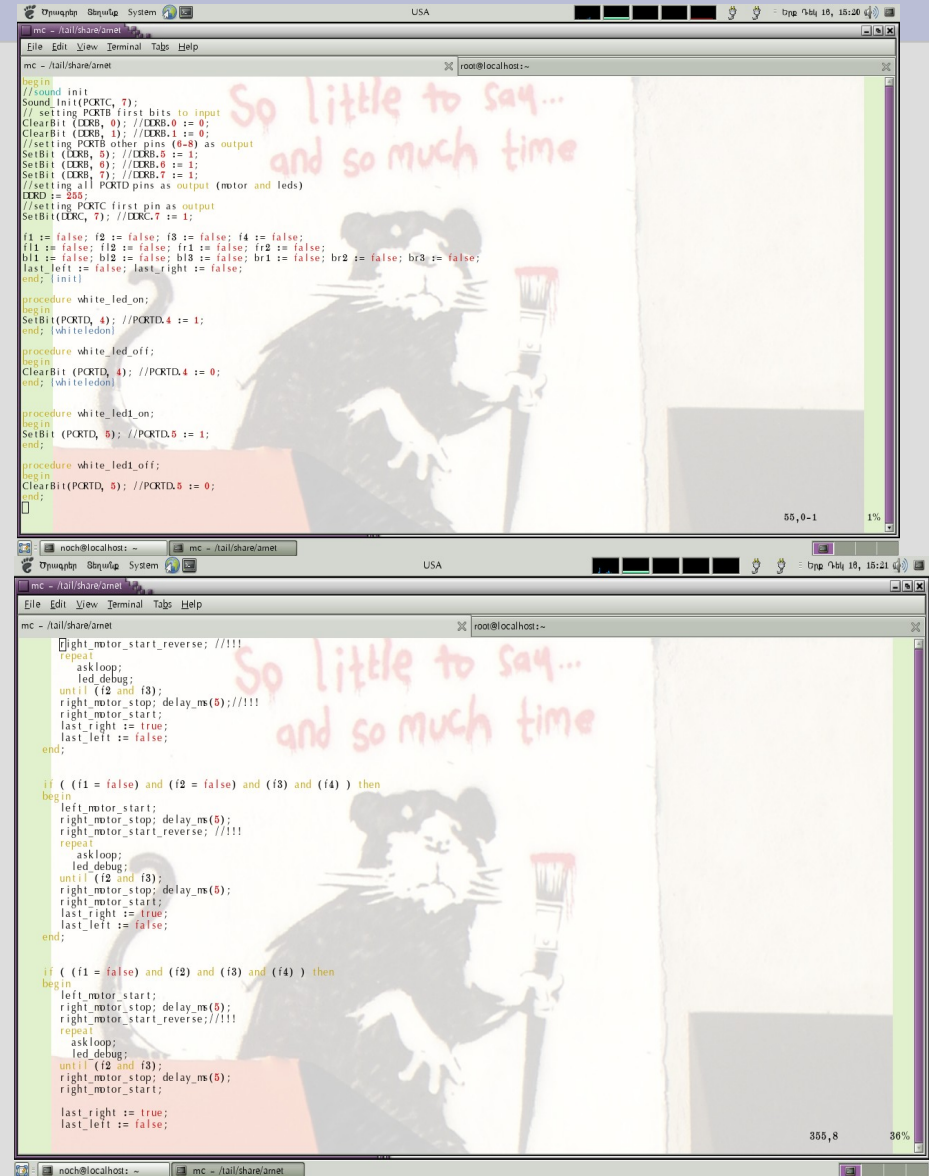
- Usage of multiplexers (dynamic queries)
- Usage of modern power switch chips
- Only two pcb's
- Free rotating wheel
- Three perpendicular lines of IR sensors

Sensors & multiplexers



Software

- Whole program fits in 5 kb
- Takes only few bytes of RAM
- Very simple but efficient line tracing algorithm (only few lines of code follows line of any form (curves, infinity (8), etc)
- Remembers side of last seen line
- Written in pascal
- Intensive usage of open source technologies



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