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SCRUF: Simple C++ Robot with Ultrasonic Sensor for Education: Arduino UNO Obstacle Avoidance Maze Programming

By: (rtheiss)

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Located at: <http://www.youmagine.com/designs/scru-fe-simple-c-robot-with-ultra-sonic-sensor-for-education-arduino-uno-obstacle-avoidance-maze-programming>

Short description:

S.C.R.U.-F.E.: Simple C++ Robot with Ultrasonic-sensor for Education

Description:

S.C.R.U.-F.E.: Simple C++ Robot with Ultrasonic-sensor for Earthlings :)
https://youtu.be/_pw6N5LGGA
I plan on using this design to promote the need for a realistic way to teach elementary and middle school students how programming can be simple and fun without the need for expensive kits. Please share/print/code and keep the resources flowing for education!
This Robot build started when my two year old daughter fell in love with an old ultrasonic robot that I built in elementary school twenty five years ago. It's missing parts and no longer works, but she has treated it with love since she was one year old. For her third birthday, I set out to make a sub \$50 Robot with easily replaceable parts (see B.O.M. in instructions) that we could make together. The fact that no individual part costs more than \$10 and that all parts are easily found or open source gives me the hopes that SCRUF will be passed down to her children with all her great memories.
My daughter adores this Robot. She named him Scruffy, so I made up a silly acronym that fits his silly appearance.

If you can, please use the online documentation found at <http://www.youmagine.com/designs/scru-fe-simple-c-robot-with-ultra-sonic-sensor-for-education-arduino-uno-obstacle-avoidance-maze-programming> because those may have been updated. Also, there you can interact and provide praise and/or feedback.