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Human Follower Robot

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Department of Computer Science and Engineering
Bangladesh University of Engineering and Technology

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Introduction

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Average Human carrying capacity is near 40kgs (1 tonne). But scientists suggest humans carry no more than 25kg for a healthy lifestyle. Carrying items are especially hard when they are distributed to small parts, e.g. Small boxes of paper. Even harder if you want to carry more items, then human labor is must. And human labor is costly.

Meet Our project proposal -

RFID Based Human Follower Carrier

Description

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Our microcontroller based project is basically a carrying cart. But it does so much more than carrying. You basically carry a small card which comes with your cart, and it follows you, carrying things you put in it. It can also avoid basic obstacles on its path.

You can also make the cart sit in a place by the click of a button. And also another click makes it find and come back to you finding the path.

Motivation

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- Shopping mall cart
- Airport luggage carrier
- OT Table
- Machinery Workbench
- Construction items carrier

and much more!

Sensors

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- Ultrasonic sensor
- Infrared sensor

Actuators

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- TT Gear Motor
- Servo Motor

RFID Card

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- RF Nano
- NRF24LO1+RF Module

Extra Components

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- Wheels
- 18650 Li-on Battery
- 18650 Battery Holder
- Male and Female Jumper wire
- Base materials
- DC Power Switch

Conclusion

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Since this is a really cheap setup, it could be used with anything that carries some items and make the process much easier. Why carry things, when you can have your smartcart to carry it for you?