



زانکۆی پۆلیتەکنیکی هه‌ولێر

ERBIL POLYTECHNIC UNIVERSITY

Erbil technology college

Automation industrial technology engineering

(A.I.T.E)

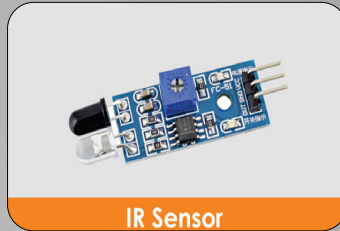
Defintion

The concept of the line follower robot is related to light. Here, we use the behavior of light on the black and white surface.

The white color reflects all the light that falls on it, whereas the black color absorbs the light.

In this line follower robot, we use IR transmitters and receivers (photodiodes). They are used to send and receive the lights. When IR rays fall on a white surface, it is reflected towards IR receiver,

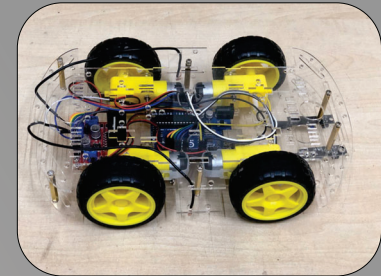
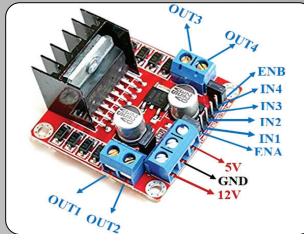
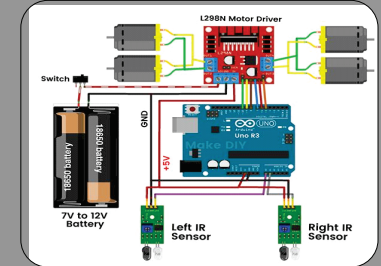
generating some voltage changes. When IR rays fall on a black surface, it is absorbed by the black surface, and no rays are reflected; thus, the IR receiver doesn't receive any rays. In this project, when the IR sensor senses a white surface, an Arduino gets 1 (HIGH) as input, and when it senses a black line, an Arduino gets 0 (LOW) as input. Based on these inputs, an Arduino Uno provides the proper output to control the bot.



IR Sensor



Arduino Uno Board



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