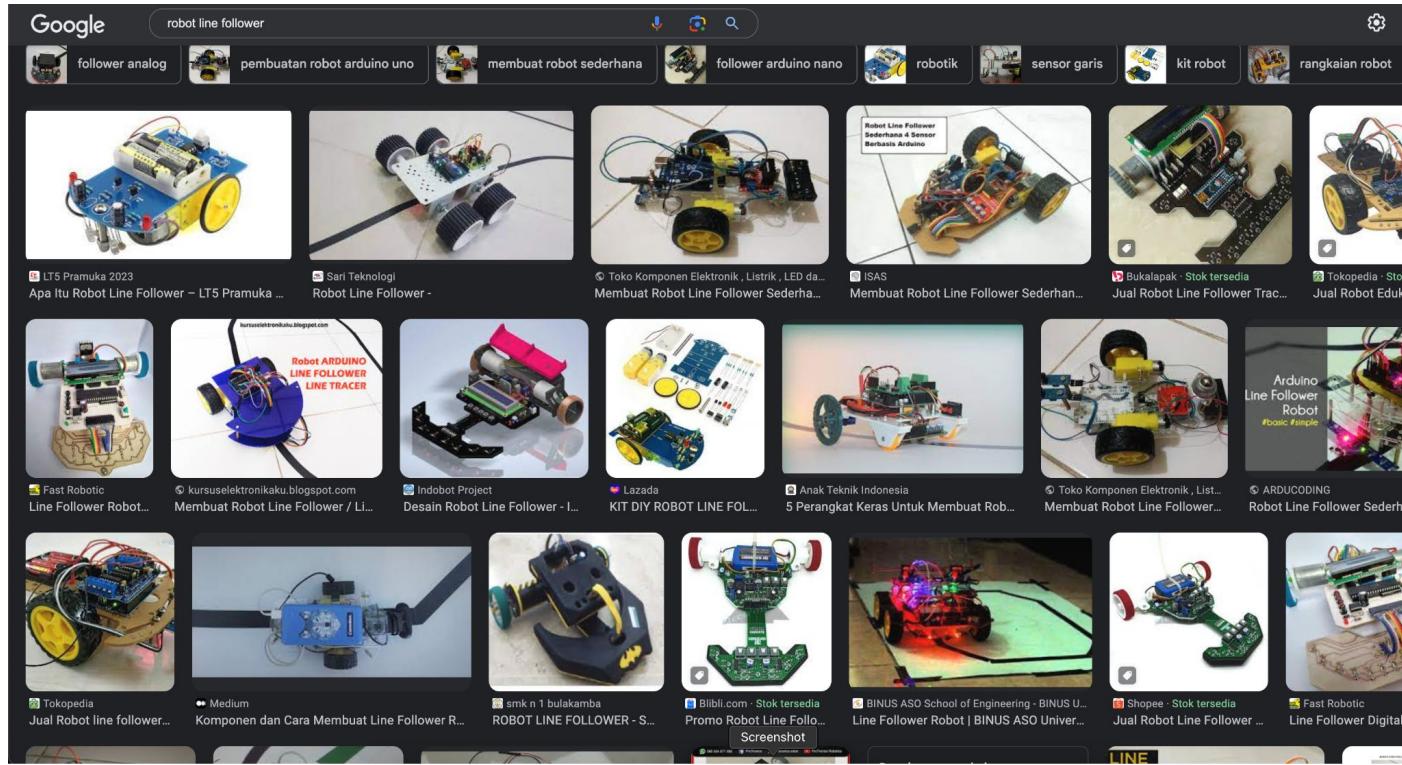


Kontrol Robot Line Follower untuk Pengenalan Logika Computational Thinking

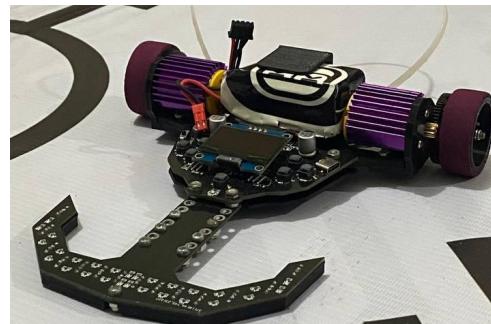
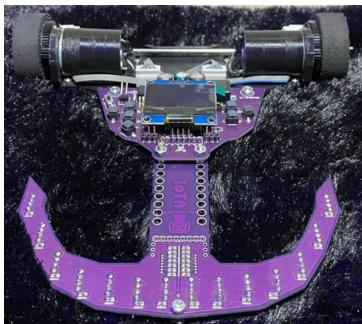
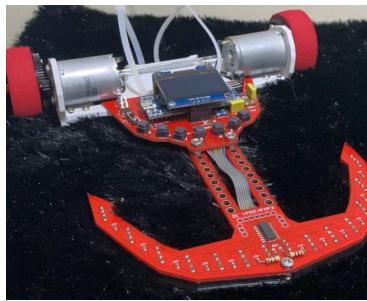
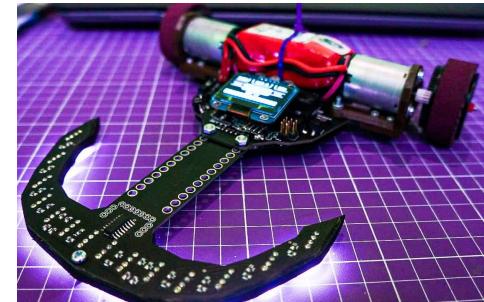
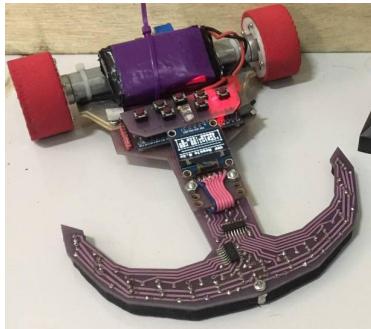
Kakarobot ID x PIDI 4.0



Robot Line Follower?



Robot Line Follower Kakarobot?



Bagaimana Cara Membuat LF?

Google car membuat line follower

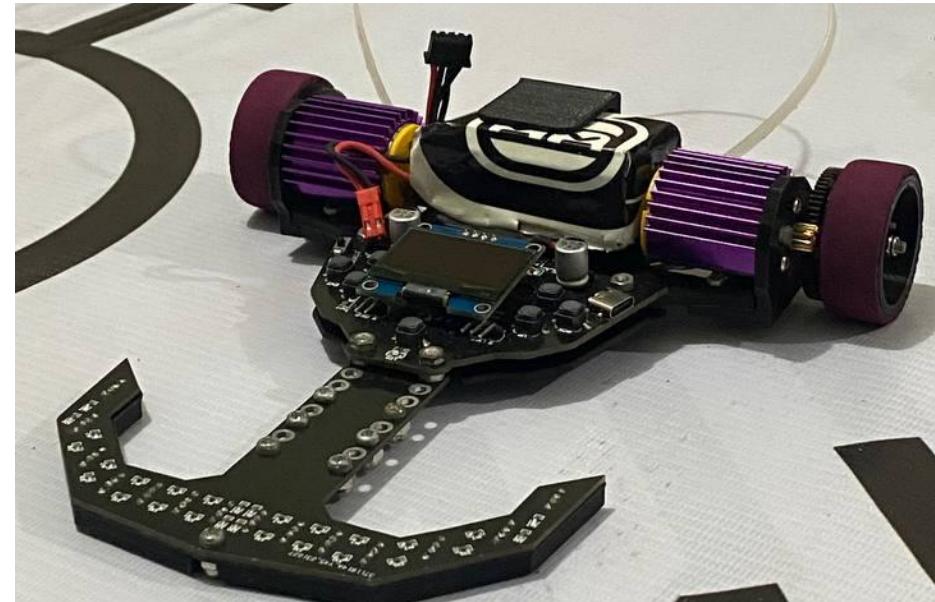
Semua Video Gambar Belanja Berita Selengkapnya Alat

analog rangkaian kalibrasi sensor line menggunakan arduino uno mikrokontroler follower digital op amp robot arduino

The screenshot shows a Google search results page for "cara membuat line follower". The search bar at the top contains the query. Below it, the navigation tabs are "Semua", "Video", "Gambar" (which is selected), "Belanja", "Berita", and "Selengkapnya". An "Alat" (Tools) dropdown menu is also visible. A row of filters includes "analog", "rangkaian", "kalibrasi sensor line", "menggunakan arduino uno", "mikrokontroler", "follower digital", "op amp", and "robot arduino". The main content area displays a grid of 15 images, each representing a different project or tutorial. The first row includes a detailed circuit diagram, a simple breadboard setup, a completed robot chassis, and a complex multi-sensor system. The second row features a blue Arduino-based robot, a clear plastic chassis with sensors, and a large-scale line tracking map. The third row shows a red robot, a white chassis, and a close-up of a sensor module. The fourth row includes a green breadboard setup, a blue Arduino board with a display, and a smartphone connected to a robot. Each image has a caption below it, such as "Toko Komponen Elektronik... Membuat Robot Line Follower Sederhana dan..." and "Nofgi Piston - WordPress.com Membuat Robot Line Follower Sederhana 4 Sensor dengan Arduino".

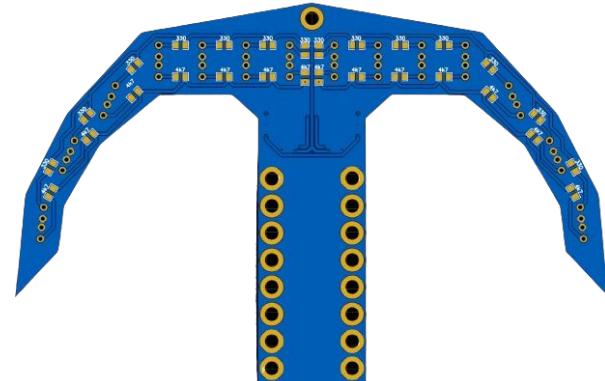
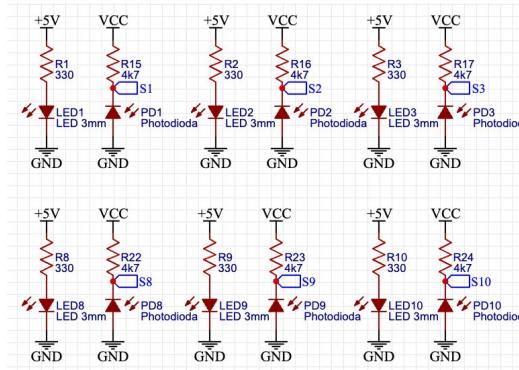
Rangkaian Line Follower?

- Rangkaian Sensor
- Rangkaian Pengendali
- Rangkaian Aktuator



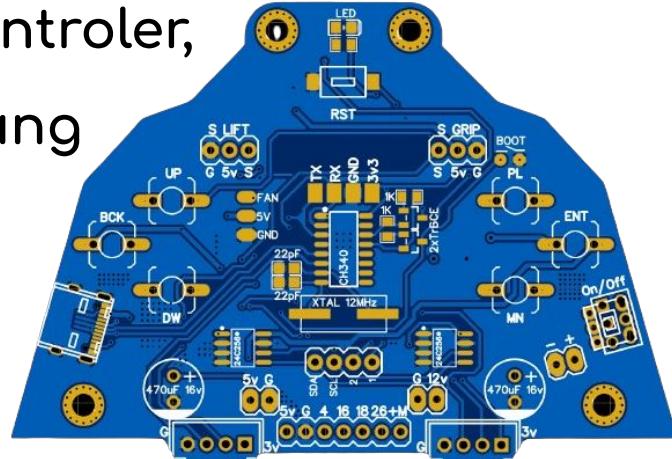
Rangkaian Sensor

Rangkaian Sensor menggunakan beberapa komponen utama seperti Resistor, Transmitter (LED, Inframerah), dan Receiver (Photodiode, LDR, Phototransistor), serta komponen penunjang lainnya.



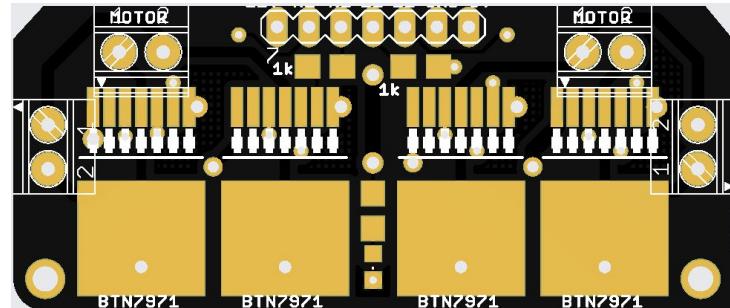
Rangkaian Pengendali

Rangkaian Pengendali biasanya terdiri dari gabungan beberapa rangkaian utama diantaranya adalah rangkaian power regulator, sistem minimum mikrokontroler, dan tambahan rangkaian pendukung seperti rangkaian display, tombol, dan lainnya.



Rangkaian Aktuator

Ada beberapa pilihan Rangkaian aktuator, biasanya menyesuaikan dengan aktuator yang digunakan. Diantaranya menggunakan rangkaian relay, transistor, mosfet, dan IC (Integrated Circuit) yang dipadukan dengan komponen dasar lainnya seperti resistor, kapasitor, dioda, dll.



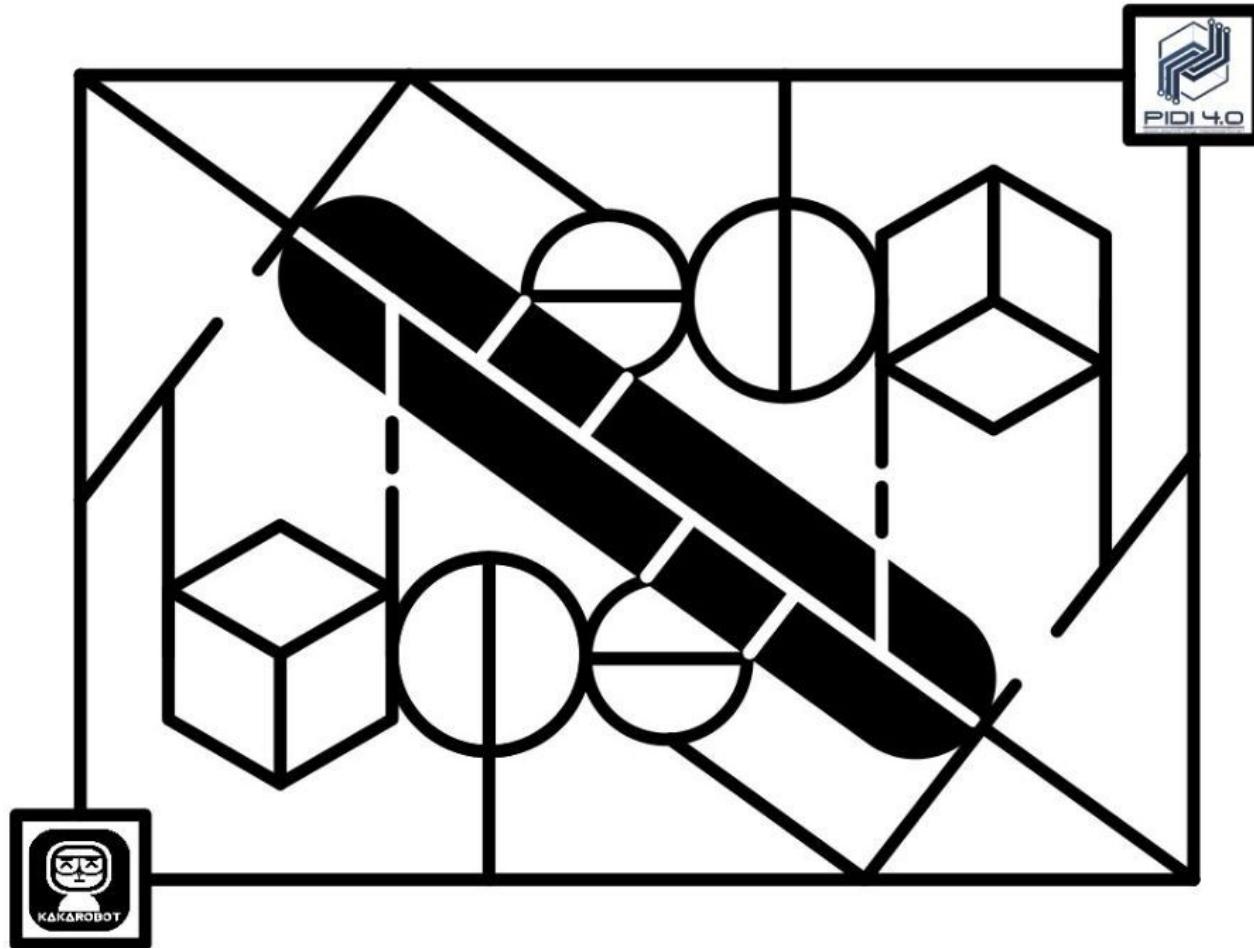


Computational Thinking

Computational thinking (berpikir komputasional) adalah cara berpikir untuk memecahkan masalah dengan menerapkan teknik ilmu komputer.

Computational Thinking

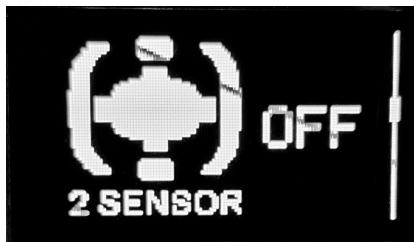
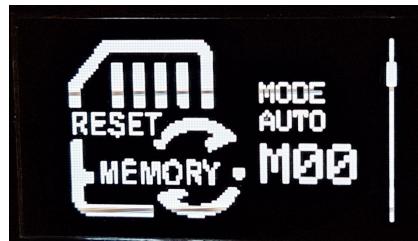
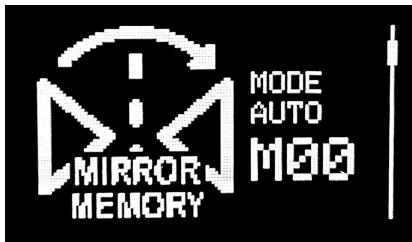
- Dekomposisi (decomposition): memecah masalah besar menjadi masalah-masalah kecil yang lebih mudah diselesaikan.
- Representasi (representation): menggambarkan masalah dan solusinya dengan cara yang dapat dipahami oleh manusia dan komputer.
- Algoritma (algorithms): menentukan urutan langkah-langkah yang diperlukan untuk menyelesaikan masalah.
- Verifikasi (verification): memeriksa apakah solusi yang dihasilkan sudah benar dan efektif.



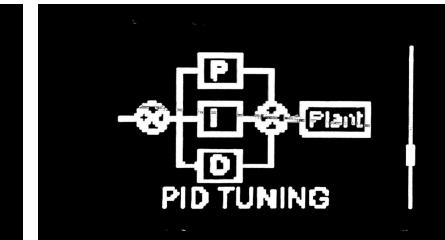
KKRos (Kakarobot Operating System)

KKRos adalah firmware yang tertanam pada Robot Line Follower Kakarobot yang mana dapat mempermudah pengguna dalam melakukan pemrograman pada robot Line Follower untuk mengikuti jalur yang telah ditentukan.

KKRos (Kakarobot Operating System)



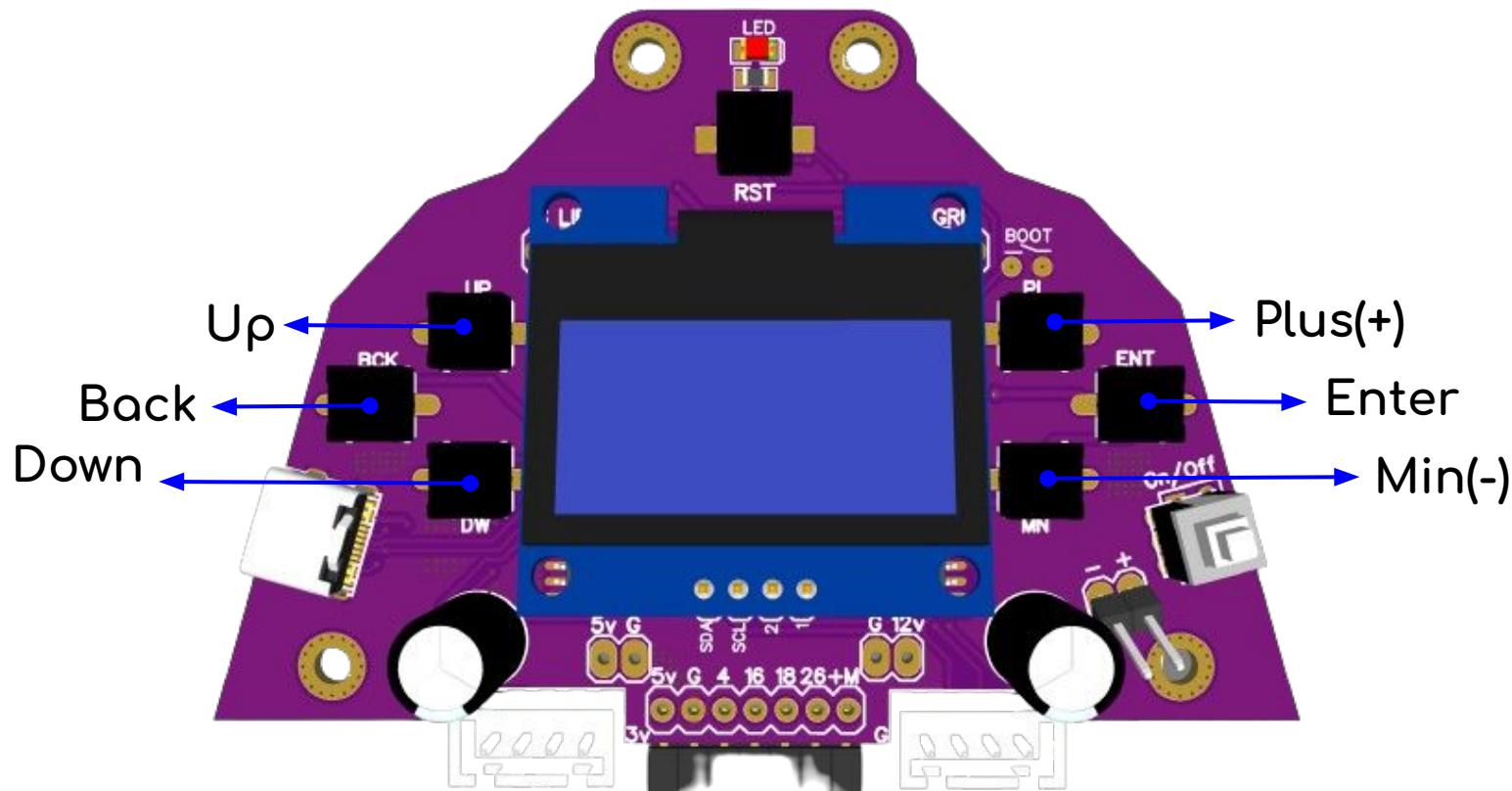
KKRos (Kakarobot Operating System)



Kakarobot IoTA
by Kakarobot ID
KKRos v2.38
ID: B0B5B729E748
(Check for Update)

A black and white text-based screen showing system information: "Kakarobot IoTA", "by Kakarobot ID", "KKRos v2.38", "ID: B0B5B729E748", and "(Check for Update)". A vertical slider bar is to the right.

KKRos (Kakarobot Operating System)



KKRos (Kakarobot Operating System)



| | | |
|------------|----------------|---------|
| P: 00 / 00 | LINE | FORWARD |
| 00 | xxxxxxxxxxxxxx | OR |
| L: +90 | D: 120 | PID: 3 |
| R: +90 | DB: 0 | BlockA |

| | | |
|------------|----------------|---------|
| P: 00 / 00 | LINE | FORWARD |
| 00 | xxxxxxxxxxxxxx | OR |
| T1: 210 | S: 70 | PID: 3 |
| T2: 0 | S: 90 | B1A L |

WORKSHOP KAKAROBOT

KONTROL ROBOT LINE FOLLOWER UNTUK
PENGENALAN LOGIKA COMPUTATIONAL THINKING



28 - 29 DESEMBER 2023
GEDUNG PIDI 4.0 JAKARTA