GR Yaris Startup Controller V1.0

Overview & Installation guide

I TAKE NO RESPONSIBILITY FOR ANY DAMAGE CAUSED DURING THE INSTALLATION OR OPERATION OF THE DEVICE.

PLEASE STUDY THE PROVIDED DOCUMENTATION & DRAWINGS AND FAMILIARISE YOURSELF WITH HOW IT IS MADE AND HOW IT WORKS.

ONLY INSTALL IF YOU ARE COMFORTABLE WITH THE RISK

Rev	Description	Date
1.0	First release, still work in progress **Testing on car yet to be completed	21/03/25

2. Overview - Operation

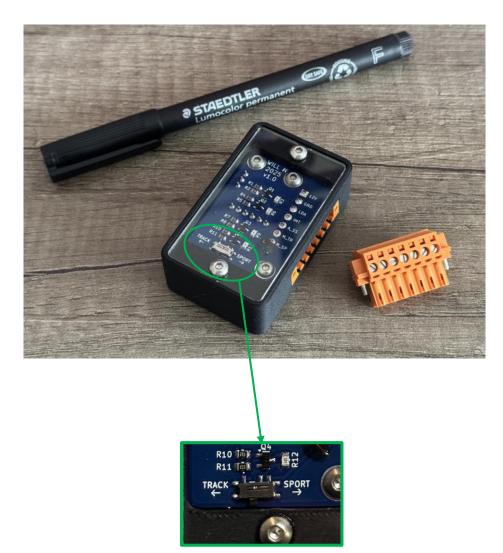
Every time the car ignition powers on, the "GR Yaris Startup Controller" turns on and automatically:

- Switches off the lane departure alert
- Switches off auto stop/start
- Switches on iMT
- Selects the driving mode (sport/track)

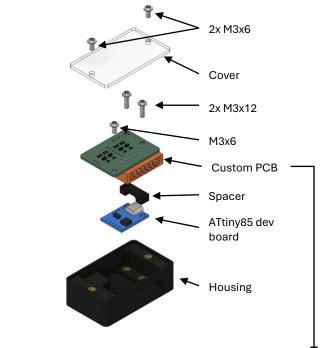
It does this by simply mimicking button presses electronically. If you don't want all the buttons pressed, <u>wire only</u> the ones you desire and leave the rest empty (i.e., wire in lane departure alert and leave the rest unconnected)

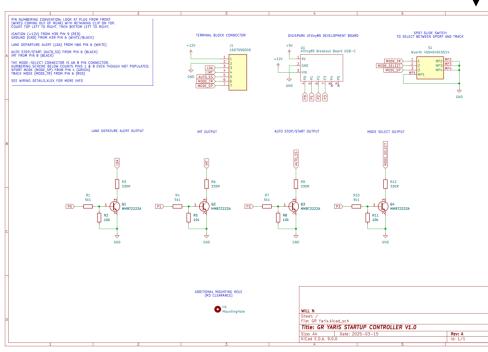
If you don't feel comfortable splicing into the factory wiring (like me), you can buy short extension harnesses that plug inline, allowing you to splice in without cutting into the factory wires. See links on subsequent slides for where to purchase these extensions.

3. Overview - Design

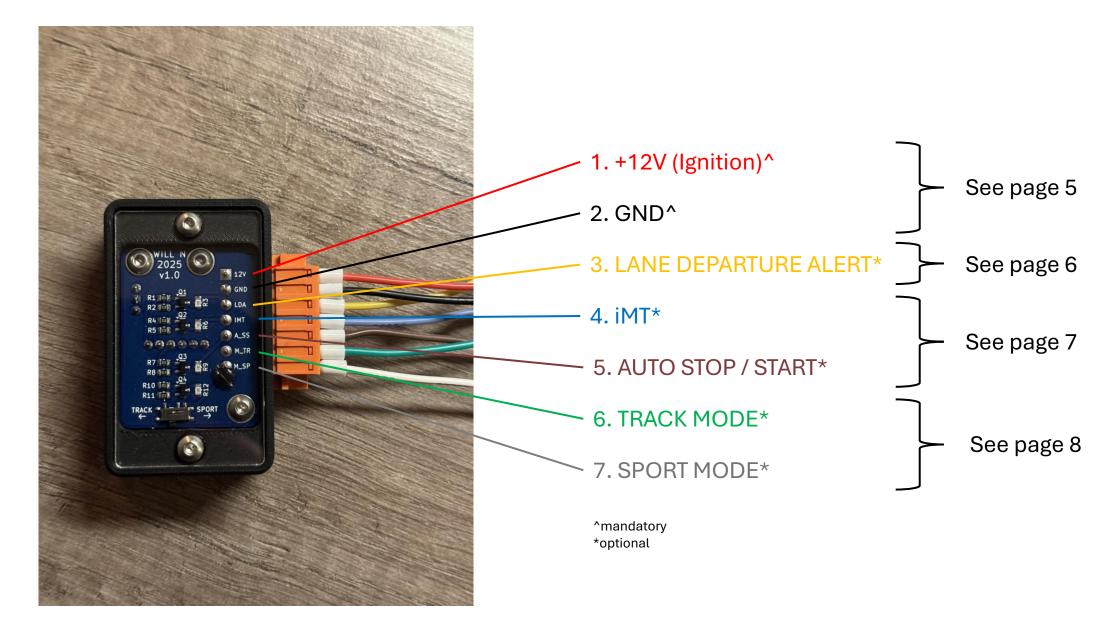


Track / Sport switch





4. Controller Wiring



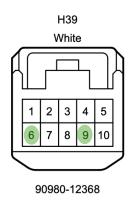
5. Ignition Power + Ground

The wiring for +12V, GND is found under the steering wheel cowling, connector H39. The cowling is removed by undoing 3x screws. (Rotate the steering wheel to reveal 2 hidden screws)

+12V (Ignition) and Ground are taken from the 10-pin connector (H39):

Pin number 9 (Red) = +12V (Ignition)

Pin number 6 (White & black stripe) = Ground



If you don't want to splice into the factory wiring, short extension harnesses can be purchased here that you can modify:

10-pin extension harness

Another option that should work

Retail Wholesale (Milk SANCE)

F 2.26

-£ 0.45 estimated lax () Extra 5% off with coins

Original automobile 90980-12368 12367 male and female extension cord adapter harness

**** * 5.0 2 Reviews | 12 sold

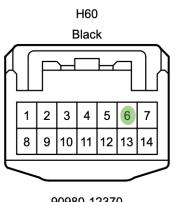
Color: 90980-12368 wire

6. Lane Departure Alert

The wiring for LDA is also found under the steering wheel cowling

LDA is taken from the 14-pin connector (H60):

Pin number 6 (White) = Lane Departure Alert (LDA)



90980-12370



7. iMT & Auto Stop/Start

The wiring loom needed for iMT and Auto Stop/Start is found under the centre console (plugged into the iMT/ESP/Auto stop start multi-button)

iMT and Auto Stop/Start are both found on the 8-pin connector that plugs into the button unit:

Pin number 8 (Black) = iMT

Pin number 6 (Black) = Auto stop/start



This 8-pin connector is:

Plug: Tokai Rika 4A1330-000 (Toyota 90980-12910)

Socket: Tokai Rika 4B1160-000

A supplier is yet to be found...

8. Driving Mode – Sport / Track

The wiring loom needed for Sport/Track mode select is found under the centre console (plugged into the drive mode rotary button)

Sport and Track mode are both found in the 8-pin connector that plugs into the drive mode rotary button. (Note pins 1 and 8 are empty in the plug but still counted here):

Pin number 4 (Green) = Sport Pin number 6 (Red) = Track

You can wire both sport and track into the controller and use the slide switch on the PCB to choose between them. The slide switch must be in the appropriate position if you decide to wire only Sport *or* Track.





9. Helpful Links

Project files and information on GitHub

Link to forum post where idea initially discussed by MagnusT

How to pull apart the centre console

Optional extension harnesses to avoid splicing factory wires:

Power & Ground: 10-pin extension harness

Power & Ground: Another 10-pin option that should work

Lane Departure Alert: 14-pin extension harness

<u>Sport/Track Mode: 8-pin plug + socket + crimp pins</u> (upper slot female)

iMT/ESP/Auto Stop Start: 8-pin **Yet to be found**

22 AWG wire