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Motor customisations, mechanisms,
and driver development
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Haptic Feedback Evaluation Kit

DRV2605 Haptic Driver

Industry leading hardware from Texas Instruments, 123 royalty free effects with 6 different libraries

On-Shield Haptics

Experience and compare haptics immediately with the C10-100 LRA or 304-103 ERM

Vibration Alerting

With an additional MOSFET and PWM capability, use the kit to create vibration alert waveforms

3 Modes of Operation

Including tutorials in Intro Mode, an advanced Engineering Mode, and an open Development Mode

Arduino UNO R3

Using popular Atmel processors, change features in the kit and continue to lead development



Separate Handheld Grip

Compare different actuators, including 3 ERMs and 1 LRA, all mounted in the Haptic Grip

USB or DC Power

Connect to a PC and edit code with the USB port, or use the DC connector to power from mains

Debugging Features

Built in circuits for analysing traces on oscilloscopes, plus software features, save time and headaches

Use External Actuators

Use screw terminals or Molex headers to play from the MOSFET or DRV2605 on your own motor

Connect Components

With stackable headers, you can access all the pins to add your own sensors and start prototyping

DRV2605 Haptic Driver

At the core of the Haptic Feedback Evaluation Kit is the DRV2605 haptic and vibration driver from Texas Instruments. This feature packed driver enables the kit to demonstrate excellent haptic performance with ERMs and LRAs. For a full list of features and to download the datasheet, visit ti.com/product/drv2605L

- Automatic Overdrive and Active Braking
- Automatic Resonance Tracking for LRAs
- Automatic Calibration of Actuators

- Integrated Immersion Effect Library
- Audio-to-Vibe Feature (w/ audio jack)
- Compensation for Battery Discharge



TEXAS
INSTRUMENTS

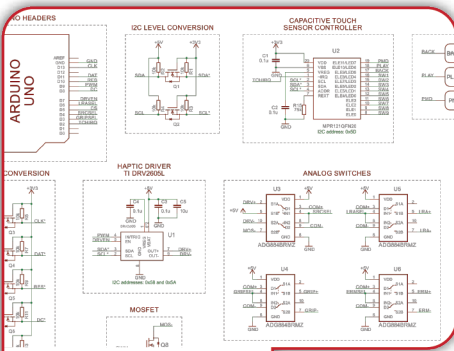
- Waveform Sequencing and Triggering
- Open and Closed Loop Driving Modes
- I2C or PWM Based Control Available

Specialists in DC Motors

We focus on the supply and testing of DC motors, including vibration motors and linear resonant actuators. Our advanced testing and quality control helps give companies access to high performance actuators, whilst keeping costs competitive. Our vibration motors are available in low volumes, many without MOQs, ensuring a stable and scalable supply throughout development and into production. Our experience and unique structure enables us to offer a variety of customisations and designs, for more information please visit us at precisionmicrodrives.com/contact-us/technical-support

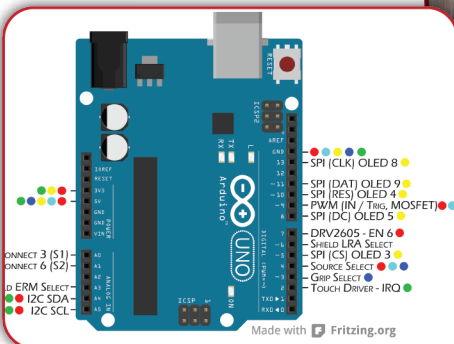


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Open-Source Resources

Access a range of useful resources online, the entire project is open-source so you'll find schematics, gerbers, libraries and codes. In addition, tutorials and example applications will help you jump start your projects and continue to support your entire development cycle to production.

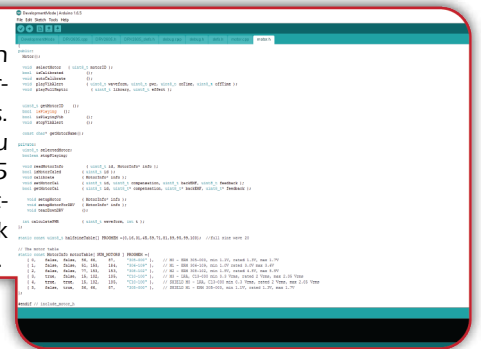


Discover Haptics

Feel the effects, see the system. Our software helps you discover and share haptic feedback, whilst our comprehensive guides and support help you understand what is required to integrate the new feature in your product - or how to improve existing offering.

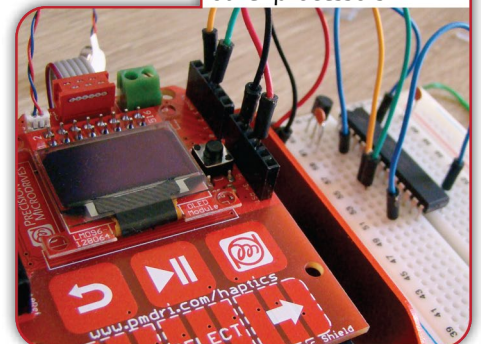
Software Development

Using the Arduino IDE, you can quickly tailor the modes of operation to suit your specific needs. Development Mode enables you to continue using the DRV2605 library to access pre-built functions for playing haptic feedback and features of the haptic driver.



Hardware Development

Stackable headers, external actuator connectors, and a detachable shield all assist you in progressing your project from idea to prototype. Move beyond the example modes provided and easily extend the functionality of the system with additional hardware such as sensors, comms devices, or other processors.



Access all resources and order at precisionmicrodrives.com/haptic-kit

Included with the Kit

Available Online

- Arduino UNO R3 drivers and IDE
- 3 Different modes of operation, including Intro Mode for basic tutorials, Engineering Mode to access all effects, and Development mode to start prototyping
- User Manual, Quick Start Guide, and additional references to help development, such as pin mappings and DRV2605 Arduino library guidance
- Additional tutorials and example applications
- Datasheets for the actuators included in the Haptic Feedback Evaluation Kit and technical assistance

In the Box

- Arduino UNO R3, mounted securely in metal base
- Haptic Shield, including capacitive touch buttons, OLED screen, stackable headers, external actuator terminals, the 304-103 and C10-100 for on-shield haptics, and the DRV2605L from Texas Instruments
- Haptic Grip, including 3 x ERMs (304-103, 306-109, 308-102) and 1 x LRA (C10-100)
- Intro Mode pre-installed and ready to go
- USB (Type B) cable for connecting the Arduino to PC
- Quick Start Guide with basic references