

# Package ‘RobinHood’

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**Type** Package

**Title** Interface for the RobinHood.com No Commission Investing Platform

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**Description** Execute API calls to the RobinHood <<https://robinhood.com>> investing platform. Functionality includes accessing account data and current holdings, retrieving investment statistics and quotes, placing and canceling orders, getting market trading hours, searching investments by popular tag, and interacting with watch lists.

**Imports** curl, jsonlite, magrittr, lubridate, profvis, dplyr, httr

**License** GPL-3

**URL** <https://github.com/JestonBlu/RobinHood>

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api_endpoints	<i>RobinHood API: Endpoints</i>
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**Description**

Backend function called by almost every function. Returns the appropriate starting URL for a given endpoint.

**Usage**

```
api_endpoints(endpoint)
```

**Arguments**

endpoint (string) which api endpoint to look up?

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api_fundamentals	<i>RobinHood API: Fundamentals</i>
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---

**Description**

Backend function called by `get_fundamentals()`, `watchlist()`. Returns a data frame of descriptive data for a given ticker symbol.

**Usage**

```
api_fundamentals(RH, ticker)
```

**Arguments**

RH object of class RobinHood  
ticker (string) vector of ticker symbols

api\_historicals      *RobinHood API: Historicals*

---

### **Description**

Backend function called by `get_historicals()`. Returns a data frame of historical price data.

### **Usage**

```
api_historicals(RH, historicals_url, body)
```

### **Arguments**

RH	object of class RobinHood
historicals_url	(string) api url
body	(string) api body

---

api\_instruments      *RobinHood API: Instruments*

---

### **Description**

Backend function called by `get_tag()`, `get_position()`, `watchlist()`. Returns a list of instrument data.

### **Usage**

```
api_instruments(RH, symbol = NULL, instrument_url = NULL)
```

### **Arguments**

RH	object of class RobinHood
symbol	(string) a single symbol
instrument_url	(string) instrument url

---

api_login	<i>RobinHood API: Login</i>
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---

**Description**

Backend function called by RobinHood(). Returns a list like object of class RobinHood which stores tokens required by all other functions.

**Usage**

```
api_login(username, password)
```

**Arguments**

username	(string) RobinHood username
password	(string) RobinHood password

---

api_logout	<i>RobinHood API: Logout</i>
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---

**Description**

Backend function called by logout(). Sends a logout call and disables your oauth2 token.

**Usage**

```
api_logout(RH)
```

**Arguments**

RH	object of class RobinHood
----	---------------------------

---

`api_markets`*RobinHood API: Markets*

---

**Description**

Backend function called by `get_market_hours()`. Returns a data frame of markets data and trading hours.

**Usage**

```
api_markets(RH, markets_url, type = "df")
```

**Arguments**

<code>RH</code>	object of class <code>RobinHood</code>
<code>markets_url</code>	(string) a single market url
<code>type</code>	(string) structure of data returned, 'df' or 'list'

---

`api_option_instruments`*RobinHood API: Option Contract Instruments*

---

**Description**

RobinHood API: Option Contract Instruments

**Usage**

```
api_option_instruments(RH, option_instrument_url)
```

**Arguments**

<code>RH</code>	object of class <code>RobinHood</code>
<code>option_instrument_url</code>	(string) url

---

api\_option\_positions *RobinHood API: Option Contract Positions*

---

### Description

Backend function called by `get_contract_positions()`. Returns a data frame of owned options contracts.

### Usage

```
api_option_positions(RH)
```

### Arguments

RH                    object of class RobinHood

---

api\_orders                    *RobinHood API: Orders*

---

### Description

Backend function called by `place_order()`, `get_order_status()`, `cancel_order()`. Issues a buy/sell order or returns the status of an order. When issuing a buy order use the `url` column in the return data to check the status or cancel the order.

### Usage

```
api_orders(RH, action, order_url = NULL, instrument_id = NULL,
           symbol = NULL, type = NULL, time_in_force = NULL, trigger = NULL,
           price = NULL, stop_price = NULL, quantity = NULL, side = NULL)
```

### Arguments

RH                    object of class RobinHood

action                (string) one of "order", "status", "cancel", or "history"

order\_url            (string) action is "status" or "cancel", only order\_url is required

instrument\_id        (string) URL of the instrument\_id

symbol                (string) Ticket symbol you are attempting to buy or sell

type                  (string) "market" or "limit"

time\_in\_force        (string) Good For Day ("gfd"), Good Till Canceled ("gtc"), Immediate or Cancel ("ioc"), or Opening ("opg")

trigger               (string) "immediate" or "stop"

price                 (number) the price you are willing to sell or buy at

stop_price	(number) if trigger = stop, enter stop price, otherwise leave blank
quantity	(int) number of shares you wish to transact
side	(string) "buy" or "sell"

---

api_portfolios	<i>RobinHood API: Portfolio</i>
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---

### Description

Backend function called by `get_portfolio()`. Returns a data frame of account summaries.

### Usage

```
api_portfolios(RH, portfolio_url)
```

### Arguments

RH	object of class RobinHood
portfolio_url	portfolio url

---

api_positions	<i>RobinHood API: Positions</i>
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---

### Description

Backend function called by `get_positions()`. Returns a data frame of instrument position data.

### Usage

```
api_positions(RH)
```

### Arguments

RH	object of class RobinHood
----	---------------------------



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api_quote	<i>RobinHood API: Quote</i>
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---

**Description**

Backend function called by `get_positions()`, `get_quote()`, `place_order()`. Returns a data frame of quote data

**Usage**

```
api_quote(RH, symbols_url)
```

**Arguments**

RH	object of class RobinHood
symbols_url	(string) url of query with ticker symbols

---

---

api_tag	<i>RobinHood API: Tag</i>
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---

**Description**

Backend function called by `get_tag()`. Returns a list of instrument ids.

**Usage**

```
api_tag(RH, tag)
```

**Arguments**

RH	object of class RobinHood
tag	(string) a hyphenated tag such as "100-most-popular"

---

---

api_tickers	<i>RobinHood API: Tickers</i>
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---

**Description**

Backend function called by `get_ticker`. Returns a data frame of all instruments listed on RobinHood.

**Usage**

```
api_tickers(RH)
```

**Arguments**

RH	object of class RobinHood
----	---------------------------

---

api_user	<i>RobinHood API: User</i>
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---

**Description**

Backend function called by get\_user() to return user data

**Usage**

api\_user(RH)

**Arguments**

RH                    object of class RobinHood

---

api_watchlist	<i>RobinHood API: watchlist</i>
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**Description**

Backend function called by watchlist(). Adds or remove instruments from the default watchlist. The create and delete watchlist features are disabled as it appears that the functionality is not currently available on the platform.

**Usage**

api\_watchlist(RH, watchlist\_url, detail = FALSE, delete = FALSE)

**Arguments**

RH                    object of class RobinHood  
watchlist\_url        (string) a single watchlist url  
detail                (logical) if null use header api only, otherwise pass options  
delete                (logical) send delete call

---

cancel_order	<i>Cancel an existing order on RobinHood</i>
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---

**Description**

Send a cancel signal for a particular order to RobinHood. You will need to retain the buy/sell order url returned from place\_order.

**Usage**

```
cancel_order(RH, order_url)
```

**Arguments**

RH	object of class RobinHood
order_url	(string) cancel url returned from place_order()

**Examples**

```
## Not run:
# Login in to your RobinHood account
RH <- RobinHood("username", "password")

# Place an order, should generate an email confirmation
x <- place_order(RH = RH,
  symbol = "GE",          # Ticker symbol you want to trade
  type = "market",       # Type of market order
  time_in_force = "gfd", # Time period the order is good for (gfd: good for day)
  trigger = "immediate", # Trigger or delay order
  price = 8.96,          # The highest price you are willing to pay
  quantity = 1,         # Number of shares you want
  side = "buy")         # buy or sell

# Cancel the order, should also generate an email confirmation
cancel_order(RH, x$cancel)

## End(Not run)
```

---

get_accounts	<i>Get account data related to your RobinHood account</i>
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---

**Description**

Get account data related to your RobinHood account

**Usage**

```
get_accounts(RH)
```

**Arguments**

RH                    object of class RobinHood

**Examples**

```
## Not run:  
# Login in to your RobinHood account  
RH <- RobinHood("username", "password")  
  
get_accounts(RH)  
  
## End(Not run)
```

---

get\_fundamentals            *Get fundamental investment statistics for a particular ticker symbol*

---

**Description**

Get fundamental investment statistics for a particular ticker symbol

**Usage**

```
get_fundamentals(RH, ticker, include_description = FALSE)
```

**Arguments**

RH                    object of class RobinHood  
ticker                (string) vector of ticker symbols  
include\_description                    (logical) include a long description of the company (default: FALSE)

**Examples**

```
## Not run:  
# Login in to your RobinHood account  
RH <- RobinHood("username", "password")  
  
get_fundamentals(RH, "CAT")  
  
## End(Not run)
```

---

get_historical	<i>Get historical price history from RobinHood</i>
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---

**Description**

Returns a data frame of historical price history for a given symbol.

**Usage**

```
get_historical(RH, symbol, interval, span)
```

**Arguments**

RH	object of class RobinHood
symbol	(string) Stock symbol to query, single symbol only
interval	(string) Interval of time to aggregate to (examples: hour, day, week, month)
span	(string) Period of time you are interested in (examples: day, week, month, year)

**Examples**

```
## Not run:  
# Login in to your RobinHood account  
RH <- RobinHood("username", "password")  
  
get_historical (RH = RH, symbol = "CAT", interval = "day", span = "month")  
  
## End(Not run)
```

---

get_market_hours	<i>Get open market hours</i>
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---

**Description**

Get a list of markets available on RobinHood with trading hours for a specific date.

**Usage**

```
get_market_hours(RH, market_date = NULL)
```

**Arguments**

RH	object of class RobinHood
market_date	(string) date in the form 'yyyy-mm-dd', default today

**Examples**

```
## Not run:  
# Login in to your RobinHood account  
RH <- RobinHood("username", "password")  
  
get_market_hours(RH)  
  
## End(Not run)
```

---

get\_order\_history      *Download all available order history for your RobinHood account*

---

**Description**

Download all available order history for your RobinHood account

**Usage**

```
get_order_history(RH)
```

**Arguments**

RH                    object of class RobinHood

**Examples**

```
## Not run:  
# Login in to your RobinHood account  
RH <- RobinHood("username", "password")  
  
get_order_history(RH)  
  
## End(Not run)
```

---

get\_order\_status      *Get a current status of an order on RobinHood*

---

**Description**

Returns a list of order information given a buy/sell order url returned from place\_order().

**Usage**

```
get_order_status(RH, order_url, limit_output = TRUE)
```

**Arguments**

RH                    object of class RobinHood  
 order\_url            (string) url of order returned from place\_order  
 limit\_output        (logical) return limited info on the order (default TRUE)

**Examples**

```
## Not run:
# Login in to your RobinHood account
RH <- RobinHood("username", "password")

# Place an order, should generate an email confirmation
x <- place_order(RH = RH,
                 symbol = "GE",            # Ticker symbol you want to trade
                 type = "market",        # Type of market order
                 time_in_force = "gfd", # Time period the order is good for (gfd: good for day)
                 trigger = "immediate", # Trigger or delay order
                 price = 8.96,            # The highest price you are willing to pay
                 quantity = 1,            # Number of shares you want
                 side = "buy")            # buy or sell

get_order_status(RH, x$url)

## End(Not run)
```

---

get\_portfolios            *Get portfolio summaries related to your RobinHood Account*

---

**Description**

Returns a dataframe of portfolio summaries for a specific period of time. Default is current day.

**Usage**

```
get_portfolios(RH, interval = NULL, span = NULL)
```

**Arguments**

RH                    object of class RobinHood  
 interval            (string) Interval of time to aggregate to (examples: hour, day, week, month)  
 span                (string) Period of time you are interested in (examples: day, week, month, year)

**Examples**

```
## Not run:  
# Login in to your RobinHood account  
RH <- RobinHood("username", "password")  
  
get_portfolios(RH)  
get_portfolios(RH, interval = "day", span = "3month")  
  
## End(Not run)
```

---

get\_positions

*Get the currently held positions for your RobinHood account*

---

**Description**

Get the currently held positions for your RobinHood account

**Usage**

```
get_positions(RH, limit_output = TRUE)
```

**Arguments**

RH	object class RobinHood
limit_output	(logical) if true, return a simplified positions table, false returns all position details

**Examples**

```
## Not run:  
# Login in to your RobinHood account  
RH <- RobinHood("username", "password")  
  
get_positions(RH)  
  
## End(Not run)
```



---

get_quote	<i>Get a quote from RobinHood</i>
-----------	-----------------------------------

---

**Description**

Get a quote from RobinHood

**Usage**

```
get_quote(RH, symbol, limit_output = TRUE)
```

**Arguments**

RH	object class RobinHood
symbol	(string) of ticker symbols
limit_output	(logical) if TRUE (default) return less quote detail

**Examples**

```
## Not run:  
# Login in to your RobinHood account  
RH <- RobinHood("username", "password")  
  
get_quote(RH, "IR")  
  
## End(Not run)
```

---

get_tag	<i>Get ticker symbols for popular tags on RobinHood</i>
---------	---

---

**Description**

Get a data frame of ticker symbols and names linked to trending tags on the RobinHood website.

**Usage**

```
get_tag(RH, tag)
```

**Arguments**

RH	object class RobinHood
tag	(string) a hyphenated tag such as "100-most-popular"

**Examples**

```
## Not run:  
# Login in to your RobinHood account  
RH <- RobinHood("username", "password")  
  
get_tag(RH, "100-most-popular")  
  
## End(Not run)
```

---

**get\_tickers***Download all financial instruments available on RobinHood*

---

**Description**

Get a dataframe of all listed companies including ticker symbols and tradeability indicators.

**Usage**

```
get_tickers(RH, add_fundamentals = FALSE)
```

**Arguments**

**RH** object of class `RobinHood`  
**add\_fundamentals** (logical) if TRUE then return fundamental data (long run time)

**Examples**

```
## Not run:  
# Login in to your RobinHood account  
RH <- RobinHood("username", "password")  
  
get_tickers(RH)  
  
## End(Not run)
```

---

**get\_user***Get personal user data related to your RobinHood account*

---

**Description**

Get personal user data related to your RobinHood account

**Usage**

```
get_user(RH)
```

**Arguments**

RH                    object class RobinHood

**Examples**

```
## Not run:  
# Login in to your RobinHood account  
RH <- RobinHood("username", "password")  
  
get_user(RH)  
  
## End(Not run)
```

---

logout

*Logout of RobinHood*

---

**Description**

Send a logout call through the RobinHood API service and disable your token.

**Usage**

```
logout(RH)
```

**Arguments**

RH                    object of class RobinHood

**Examples**

```
## Not run:  
# Login in to your RobinHood account  
RH <- RobinHood("username", "password")  
  
logout(RH)  
  
## End(Not run)
```

---

 place\_order

*Place a buy or sell order against your RobinHood account*


---

### Description

Place a buy or sell order against your RobinHood account

### Usage

```
place_order(RH, symbol, type, time_in_force, trigger, price,
  stop_price = NA, quantity, side)
```

### Arguments

RH	object of class RobinHood
symbol	(string) Ticket symbol you are attempting to buy or sell
type	(string) "market" or "limit"
time_in_force	(string) Good For Day ("gfd"), Good Till Canceled ("gtc"), Immediate or Cancel ("ioc"), or Opening ("opg")
trigger	(string) "immediate" or "stop"
price	(number) the price you are willing to sell or buy at
stop_price	(number) if trigger = stop, enter stop price, otherwise leave blank
quantity	(int) number of shares you wish to transact
side	(string) "buy" or "sell"

### Examples

```
## Not run:
# Login in to your RobinHood account
RH <- RobinHood("username", "password")

# Place an order, should generate an email confirmation
x <- place_order(RH = RH,
  symbol = "GE",          # Ticker symbol you want to trade
  type = "market",       # Type of market order
  time_in_force = "gfd", # Time period the order is good for (gfd: good for day)
  trigger = "immediate", # Trigger or delay order
  price = 8.96,          # The highest price you are willing to pay
  quantity = 1,         # Number of shares you want
  side = "buy")         # buy or sell

## End(Not run)
```

---

RobinHood

*RobinHood Account Authentication*

---

### Description

This function returns an object of S3 class RobinHood and establishes a connection to a RobinHood account. It is a required input for every other function in the package.

### Usage

```
RobinHood(username, password)
```

### Arguments

username	user name or email
password	password

### Examples

```
## Not run:  
RH <- RobinHood("username", "password")  
  
## End(Not run)
```

---

watchlist

*Manage your RobinHood watchlist*

---

### Description

Add and delete instruments from your RobinHood watchlist.

### Usage

```
watchlist(RH, action, watchlist = "", ticker = "")
```

### Arguments

RH	object class RobinHood
action	(string) one of: get, add, delete
watchlist	(string) name of watchlist to add, delete, or get instruments, null will return a list of watchlist
ticker	(string) list of tickers to add or delete, null will add or delete watchlist

**Examples**

```
## Not run:
# Login in to your RobinHood account
RH <- RobinHood("username", "password")

# Get a vector of your watchlist names
watchlist(RH, action = "get")

# Get a vectors of symbols on your watchlist
watchlist(RH, action = "get", watchlist = "Default")

# Add a symbol to your watchlist
watchlist(RH, action = "add", watchlist = "Default", ticker = "CAT")

# Delete a symbol from your watchlist
watchlist(RH, action = "delete", watchlist = "Default", ticker = "CAT")

## End(Not run)
```

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