Dash DAQ

Dash is a web application framework that provides pure Python abstraction around HTML, CSS, and JavaScript.

Dash DAQ comprises a robust set of controls that make it simpler to integrate data acquisition and controls into your Dash applications.

The source is on GitHub at **plotly/dash-daq**.

These docs are using version 0.6.0.

```
>>> import dash_daq as daq
>>> print(daq.__version__)
0.6.0
```

BooleanSwitch

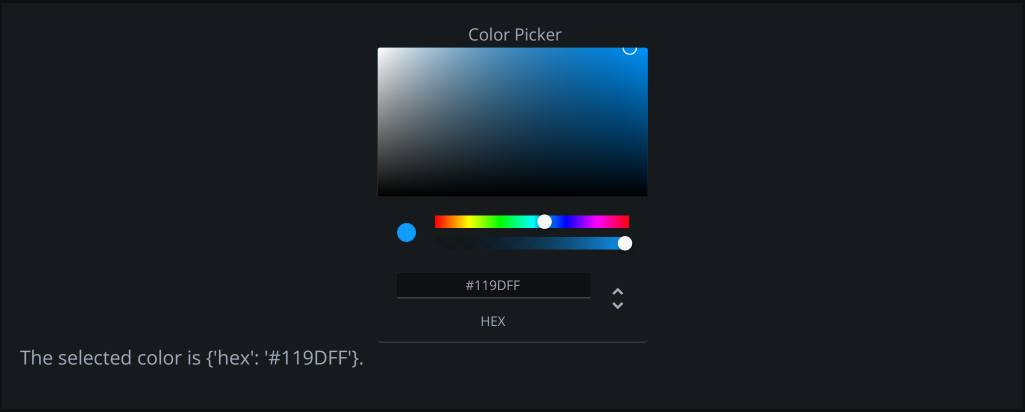
```
from dash import Dash, html, Input, Output, callback
import dash_daq as daq

app = Dash()

app.layout = html.Div([
    daq.BooleanSwitch(id='our-boolean-switch', on=False),
    html.Div(id='boolean-switch-result')
])


@callback(
    Output('boolean-switch-result', 'children'),
    Input('our-boolean-switch', 'on')
)
def update_output(on):
    return f'The switch is {on}.'


if __name__ == '__main__':
    app.run(debug=True)
```

The switch is False.

More BooleanSwitch Examples and Reference

ColorPicker

```python
from dash import Dash, html, Input, Output, callback
import dash_daq as daq

app = Dash()

app.layout = html.Div([
    daq.ColorPicker(
        id='our-color-picker',
        label='Color Picker',
        value=dict(hex='#119DFF')
    ),
    html.Div(id='color-picker-result')
])


@callback(
    Output('color-picker-result', 'children'),
    Input('our-color-picker', 'value')
)
def update_output(value):
    return f'The selected color is {value}.'


if __name__ == '__main__':
    app.run(debug=True)
```



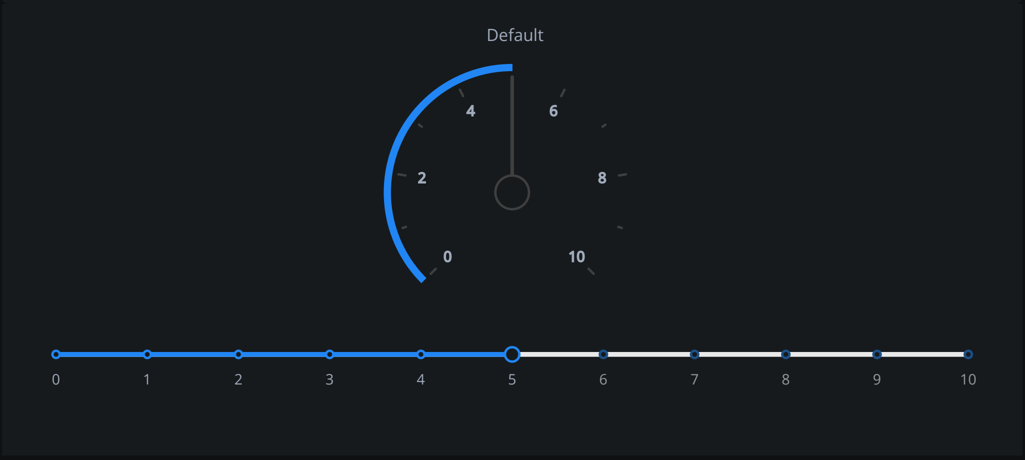
The selected color is {'hex': '#119DFF'}.

More ColorPicker Examples and Reference

Gauge

```python
from dash import Dash, dcc, html, Input, Output, callback
import dash_daq as daq

app = Dash()

app.layout = html.Div([
    daq.Gauge(
        id='our-gauge',
        label="Default",
        value=6
    ),
    dcc.Slider(
        id='our-gauge-slider',
        min=0,
        max=10,
        step=1,
        value=5
    ),
])


@callback(Output('our-gauge', 'value'), Input('our-gauge-slider', 'value'))
def update_output(value):
    return value
```

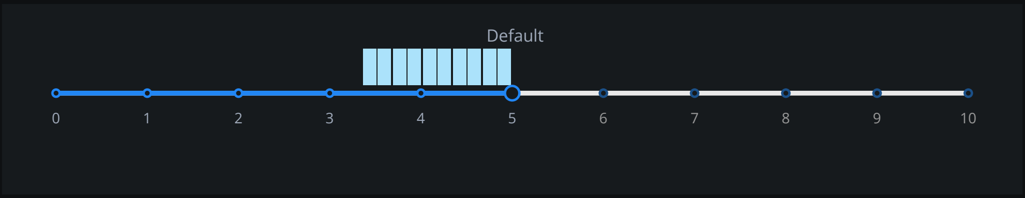
```
if __name__ == '__main__':
    app.run(debug=True)
```



More Gauge Examples and Reference

GraduatedBar

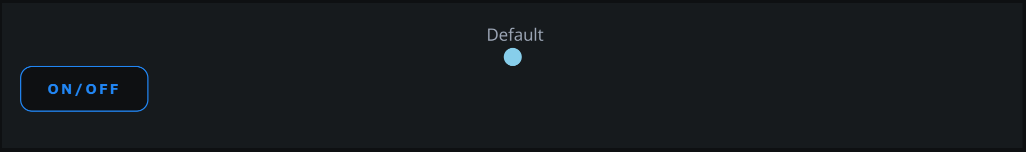
```
from dash import Dash, html, dcc, Input, Output, callback
import dash_daq as daq

app = Dash()

app.layout = html.Div([
    daq.GraduatedBar(
        id='our-graduated-bar',
        label="Default",
        value=6
    ),
    dcc.Slider(
        id='our-graduated-bar-slider',
        min=0,
        max=10,
        step=1,
        value=5
    ),
])


@callback(
    Output('our-graduated-bar', 'value'),
    Input('our-graduated-bar-slider', 'value')
)
def update_output(value):
    return value


if __name__ == '__main__':
    app.run(debug=True)
```



More GraduatedBar Examples and Reference

Indicator

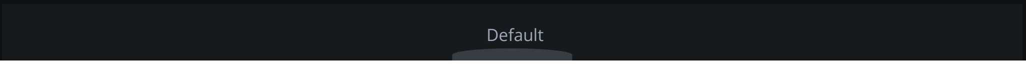
```
from dash import Dash, html, Input, Output, callback
import dash_daq as daq

app = Dash()

app.layout = html.Div([
    daq.Indicator(
        id='our-indicator',
        label="Default",
    ),
    html.Button(
        'On/Off',
        id='our-indicator-button',
        n_clicks=0
    ),
])


@callback(
    Output('our-indicator', 'value'),
    Input('our-indicator-button', 'n_clicks')
)
def update_output(value):
    return True if value % 2 == 0 else False


if __name__ == '__main__':
    app.run(debug=True)
```

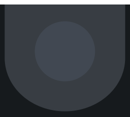


More Indicator Examples and Reference

Joystick

```
from dash import Dash, html, Input, Output, callback
import dash_daq as daq

app = Dash()

app.layout = html.Div([
    daq.Joystick(
        id='our-joystick',
        label="Default",
        angle=0
    ),
    html.Div(id='joystick-result')
])


@callback(
    Output('joystick-result', 'children'),
    Input('our-joystick', 'angle'),
    Input('our-joystick', 'force')
)
def update_output(angle, force):
    return [f'Angle is {angle}', html.Br(), f'Force is {force}']


if __name__ == '__main__':
    app.run(debug=True)
```



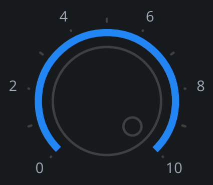


Angle is 0
Force is None

More Joystick Examples and Reference

Knob

```
from dash import Dash, html, Input, Output, callback
import dash_daq as daq

app = Dash()

app.layout = html.Div([
    daq.Knob(id='our-knob'),
    html.Div(id='knob-result')
])


@callback(Output('knob-result', 'children'), Input('our-knob', 'value'))
def update_output(value):
    return f'The knob value is {value}.'


if __name__ == '__main__':
    app.run(debug=True)
```



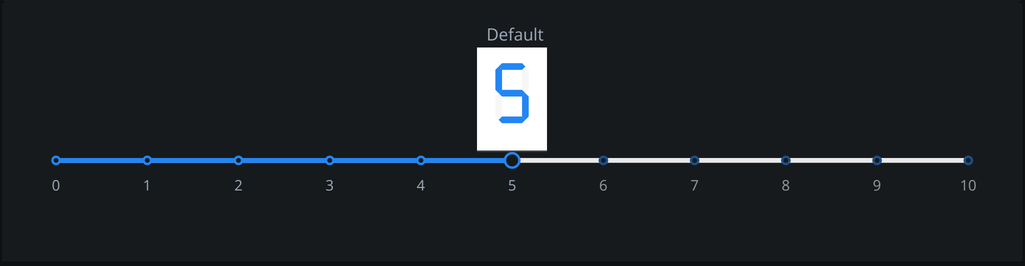
The knob value is None.

More Knob Examples and Reference

LEDDisplay

```
from dash import Dash, dcc, html, Input, Output, callback
import dash_daq as daq

app = Dash()

app.layout = html.Div([
    daq.LEDDisplay(
        id='our-LED-display',
        label="Default",
        value=6
    ),
    dcc.Slider(
        id='our-LED-display-slider',
        min=0,
        max=10,
        step=1,
        value=5
    ),
])
```

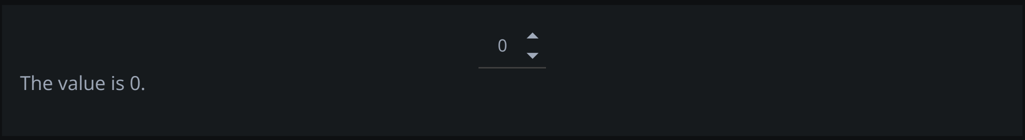
```
@callback(
    Output('our-LED-display', 'value'),
    Input('our-LED-display-slider', 'value')
)
def update_output(value):
    return str(value)


if __name__ == '__main__':
    app.run(debug=True)
```



More LEDDisplay Examples and Reference

NumericInput

```
from dash import Dash, html, Input, Output, callback
import dash_daq as daq

app = Dash()

app.layout = html.Div([
    daq.NumericInput(
        id='our-numeric-input',
        value=0
    ),
    html.Div(id='numeric-input-result')
])


@callback(
    Output('numeric-input-result', 'children'),
    Input('our-numeric-input', 'value')
)
def update_output(value):
    return f'The value is {value}.'


if __name__ == '__main__':
    app.run(debug=True)
```



The value is 0.

More NumericInput Examples and Reference

PowerButton

```
from dash import Dash, html, Input, Output, callback
import dash_daq as daq

app = Dash()

app.layout = html.Div([
    daq.PowerButton(
        id='our-power-button',
        on=False
    ),
    html.Div(id='power-button-result')
])


@callback(
    Output('power-button-result', 'children'),
    Input('our-power-button', 'on')
)
def update_output(on):
    return f'The button is {on}.'


if __name__ == '__main__':
    app.run(debug=True)
```

The button is False.

More PowerButton Examples and Reference

PrecisionInput

```
from dash import Dash, html, Input, Output, callback
import dash_daq as daq

app = Dash()

app.layout = html.Div([
    daq.PrecisionInput(
        id='our-precision',
        label='Default',
        precision=4,
        value=1234
    ),
    html.Div(id='precision-result')
])


@callback(
    Output('precision-result', 'children'),
    Input('our-precision', 'value')
)
def update_output(value):
    return f'The current value is {value}.'


if __name__ == '__main__':
    app.run(debug=True)
```

Default

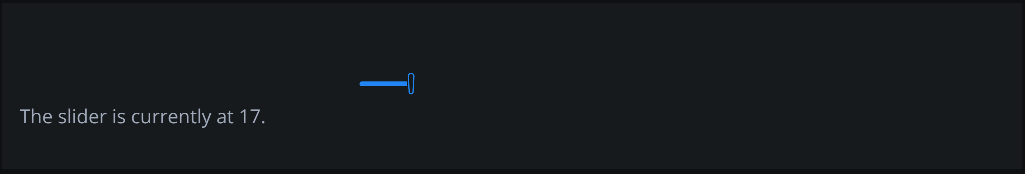
1 . 2 3 4 E 3

The current value is 1234.

More PrecisionInput Examples and Reference

Slider

```python
from dash import Dash, html, Input, Output, callback
import dash_daq as daq

app = Dash()

app.layout = html.Div([
    daq.Slider(
        id='our-daq-slider-ex',
        value=17
    ),
    html.Div(id='slider-result')
])


@callback(
    Output('slider-result', 'children'),
    Input('our-daq-slider-ex', 'value')
)
def update_output(value):
    return f'The slider is currently at {value}.'


if __name__ == '__main__':
    app.run(debug=True)
```

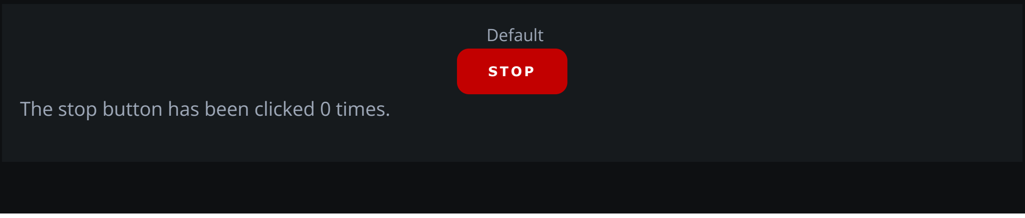


The slider is currently at 17.

More Slider Examples and Reference

StopButton

```python
from dash import Dash, html, Input, Output, callback
import dash_daq as daq

app = Dash()

app.layout = html.Div([
    daq.StopButton(
        id='our-stop-button',
        label='Default',
        n_clicks=0
    ),
    html.Div(id='stop-button-result')
])


@callback(
    Output('stop-button-result', 'children'),
    Input('our-stop-button', 'n_clicks')
)
def update_output(n_clicks):
    return f'The stop button has been clicked {n_clicks} times.'


if __name__ == '__main__':
    app.run(debug=True)
```

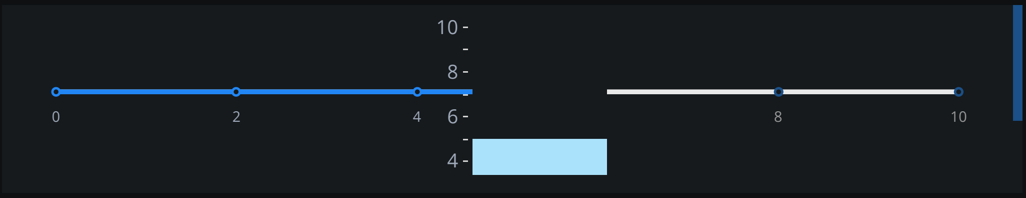


The stop button has been clicked 0 times.

More StopButton Examples and Reference

Tank

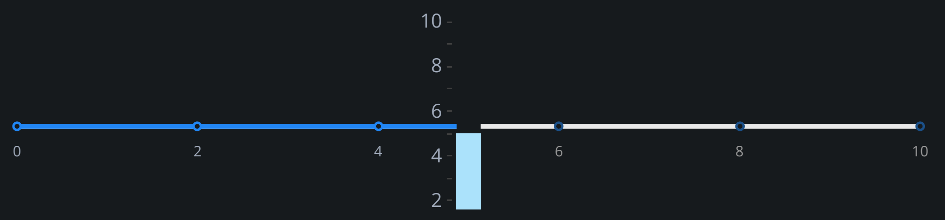
```
from dash import Dash, html, dcc, Input, Output, callback
import dash_daq as daq

app = Dash()

app.layout = html.Div([
    daq.Tank(
        id='our-tank',
        value=5,
        min=0,
        max=10,
        style={'margin-left': '50px'}
    ),
    dcc.Slider(
        id='tank-slider',
        value=5,
        min=0,
        max=10,
    ),
])


@callback(Output('our-tank', 'value'), Input('tank-slider', 'value'))
def update_tank(value):
    return value


if __name__ == '__main__':
    app.run(debug=True)
```



More Tank Examples and Reference

Thermometer

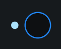
```
from dash import Dash, html, dcc, Input, Output, callback
import dash_daq as daq

app = Dash()

app.layout = html.Div([
    daq.Thermometer(
        id='our-thermometer',
        value=5,
        min=0,
        max=10,
        style={
            'margin-bottom': '5%'
        }
    ),
    dcc.Slider(
        id='thermometer-slider',
        value=5,
        min=0,
        max=10,

    ),
])


@callback(
    Output('our-thermometer', 'value'),
    Input('thermometer-slider', 'value')
)
def update_thermometer(value):
    return value


if __name__ == '__main__':
    app.run(debug=True)
```



More Thermometer Examples and Reference

ToggleSwitch

```
from dash import Dash, html, Input, Output, callback
import dash_daq as daq

app = Dash()

app.layout = html.Div([
    daq.ToggleSwitch(
        id='our-toggle-switch',
        value=False
    ),
    html.Div(id='toggle-switch-result')
])


@callback(
    Output('toggle-switch-result', 'children'),
    Input('our-toggle-switch', 'value')
)
def update_output(value):
    return f'The switch is {value}.'

if __name__ == '__main__':
    app.run(debug=True)
```

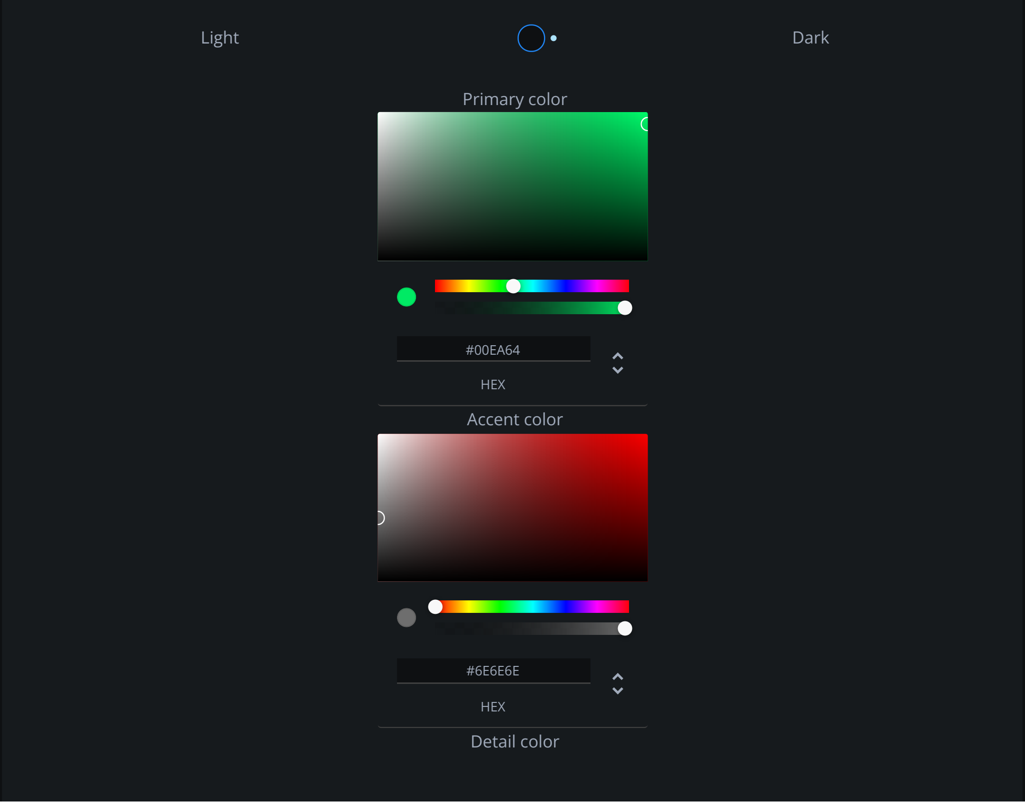


The switch is False.

More ToggleSwitch Examples and Reference

DarkThemeProvider

```
from dash import Dash, html, Input, Output, State, callback
import dash_daq as daq

app = Dash()

theme = {
    'dark': True,
    'detail': '#007439',
    'primary': '#00EA64',
    'secondary': '#6E6E6E',
}

rootLayout = html.Div([
    daq.BooleanSwitch(
        on=True,
        className='dark-theme-control'
    ), html.Br(),
    daq.ToggleSwitch(
        className='dark-theme-control'
    ), html.Br(),
    daq.ColorPicker(
        value=dict(hex='#171717'),
        className='dark-theme-control'
    ), html.Br(),
    daq.Gauge(
        min=0,
        max=10,
        value=6,
        color=theme['primary'],
        className='dark-theme-control'
    ), html.Br(),
    daq.GraduatedBar(
        value=4,
        color=theme['primary'],
        className='dark-theme-control'
    ), html.Br(),
    daq.Indicator(
        value=True,
        color=theme['primary'],
        className='dark-theme-control'
    ), html.Br(),
    daq.Knob(
        min=0,
        max=10,
        value=6,
        className='dark-theme-control'
    ), html.Br(),
    daq.LEDDisplay(
        value="3.14159",
        color=theme['primary'],
        className='dark-theme-control'
    ), html.Br(),
```


Light

Dark

Primary color

#00EA64

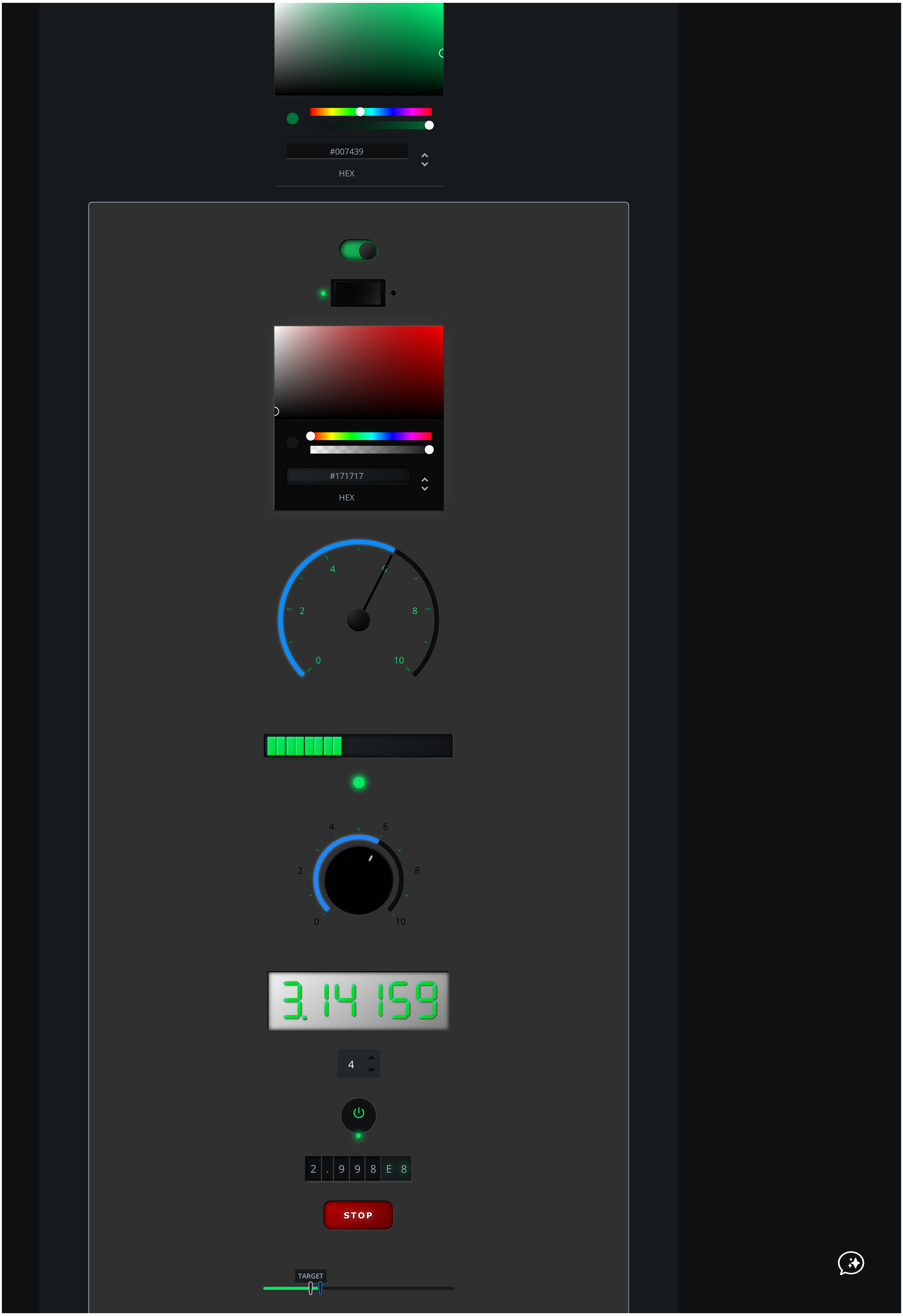
HEX

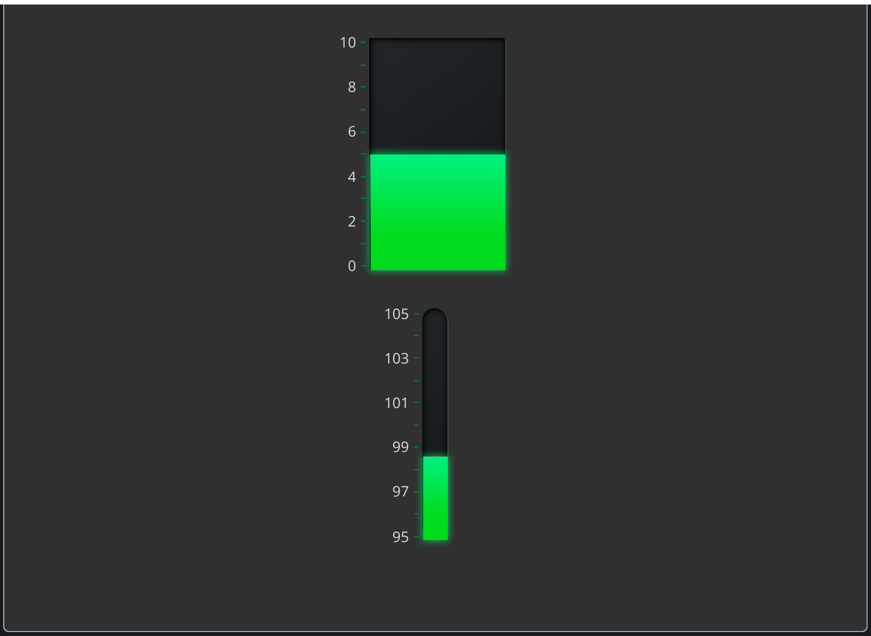
Accent color

#6E6E6E

HEX

Detail color


#007439
HEX
#171717
HEX
0
2
4
6
8
10
4
6
2
8
0
10
3.14159
4
2 . 9 9 8 E 8
STOP
TARGET



More DarkThemeProvider Examples and Reference

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