


The tikzducks Package (version 0.2)

using ducks in tikz

samcarter (alias )

<https://github.com/samcarter8/tikzducks>

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1 Introduc(k)tion

The tikzducks package is a latex package for ducks to be used in tikz pictures. This project is a continuation of an answer at TeX.Stackexchange: [How can we draw a duck?](#).

This package is work in progress (and will probably never be really finished as there is an infinite amount of things which could be added), therefore I would be happy to hear your feedback and ideas how to improve the package. The source code can be found on <https://github.com/samcarter8/tikzducks>, including a bug tracker, please make constructive use of it!

1.1 License

Copyright © samcarter. Permission is granted to copy, distribute and/or modify this software under the terms of the LaTeX project public licence, version 1.3c <http://www.latex-project.org/lppl.txt>.

The shown example ducks are purely fictional characters, any resemblance to real persons is purely coincidental and no copyright infringement is intended.

1.2 Acknowledgements

I would like to thank a few fellow user from TeX.Stackexchange: [CarLaTeX](#) for pointing out the overwhelming need of having a tikzducks package, [Paulo Cereda](#) for his contagious enthusiasm for ducks (*Quack!*), [egreg](#) for his help to implement the interface which makes it much easier to adjust the properties of the ducks to fit the user needs, [Symbol 1](#) for his help with default key values, [Ulrike Fischer](#) for her valuable tikz advices and last but not least [Martin Schröder](#) for his feedback to the code review.

Without them, this package would not exist!

1.3 Dependencies

The tikzducks package loads the packages xcolor and tikz, both without any options.

If you require one of these packages to be loaded with some option, please consider load-

ing it yourself before the tikzducks package or use, e.g. `\PassOptionsToPackage{svgnames}{xcolor}`

It also uses the `\usetikzlibrary{patterns}`.

2 Usage

The basic usage is fairly simple, to draw a duck:

basic duck

```
\begin{tikzpicture}  
  \duck  
\end{tikzpicture}
```



To customise this basic duck, the package uses pgf keys. For almost all parts the colour can be changed using <shape name>=<colour name>. For example to change the colour of the duck:

blue duck

```
\begin{tikzpicture}  
  \duck[body=blue]  
\end{tikzpicture}
```



If the size of the ducks should be changed:

scaled duck

```
\begin{tikzpicture}[scale=0.6]  
  \duck  
  \begin{scope}[xshift=90pt, scale=.3, yshift=150pt]  
    \duck  
  \end{scope}  
  \begin{scope}[xshift=60pt, scale=.3, yshift=100pt]  
    \duck  
  \end{scope}  
  \begin{scope}[xshift=80pt, scale=.3, yshift=50pt]  
    \duck  
  \end{scope}  
\end{tikzpicture}
```

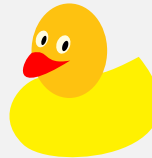


2.1 Body parts

The various parts of the duck body can also be coloured independently, i.e. body, head and bill:

harlequin duck

```
\begin{tikzpicture}
  \duck[body=yellow,
        head=yellow!50!orange,
        bill=red]
\end{tikzpicture}
```



Furthermore using the keyword `grumpy` the shape of the bill can be changed:

grumpy duck

```
\begin{tikzpicture}
  \duck[grumpy]
\end{tikzpicture}
```



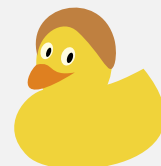
2.2 Hair styles

Some duck also like to have nice hair cuts, several different hair styles are available:

hairsty duck

```
\begin{tikzpicture}
  \duck[longhair]
\end{tikzpicture}
\begin{tikzpicture}
  \duck[shorthair]
\end{tikzpicture}

\begin{tikzpicture}
  \duck[crazyhair]
\end{tikzpicture}
\begin{tikzpicture}
  \duck[recedinghair]
\end{tikzpicture}
```



And of course the colour of each hair styles can be adjusted:

coloured hair duck

```
\begin{tikzpicture}  
  \duck[longhair=teal]  
\end{tikzpicture}
```



Eyebrows are also part of the package. The colour choice is a bit complicate for them - if a colour is explicitly specified `eyebrow=<colour name>` this colour is of coursed used. But if no colour is given, it falls first back to the hair colour and only if the duck does not have any hairs, the default colour is applied.

eye brow duck

```
\begin{tikzpicture}  
  \duck[eyebrow]  
\end{tikzpicture}  
\begin{tikzpicture}  
  \duck[longhair=blue,  
    eyebrow]  
\end{tikzpicture}  
  
\begin{tikzpicture}  
  \duck[crazyhair=red,  
    eyebrow=blue]  
\end{tikzpicture}
```



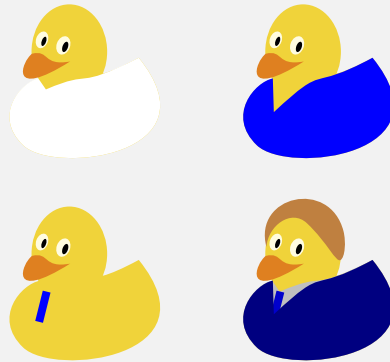
2.3 Clothing

A respectable duck needs a suitable wardrobe. It can choose from a tshirt, a jacket and a tie.

dressed duck

```
\begin{tikzpicture}
  \duck[tshirt]
\end{tikzpicture}
\begin{tikzpicture}
  \duck[jacket]
\end{tikzpicture}

\begin{tikzpicture}
  \duck[tie]
\end{tikzpicture}
\begin{tikzpicture}
  \duck[tshirt=lightgray,
        jacket=blue!50!black,
        tie=blue!80!black,
        shorthair]
\end{tikzpicture}
```

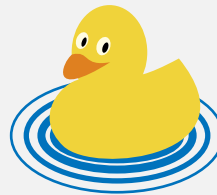


2.4 Accessoire

There is a multitude of things a duck might need. All these examples also work without specifying a colour, but giving both examples with and without explicit colour just makes this overview unnecessary long.

swimming duck

```
\begin{tikzpicture}
  \duck[water=cyan!50!blue]
\end{tikzpicture}
```



alien duck

```
\begin{tikzpicture}  
  \duck[alien=green!50!brown]  
\end{tikzpicture}
```



hat duck

```
\begin{tikzpicture}  
  \duck[hat=red!50!black]  
\end{tikzpicture}
```



cap duck

```
\begin{tikzpicture}  
  \duck[cap=red]  
\end{tikzpicture}
```



unicorn duck

```
\begin{tikzpicture}  
  \duck[body=pink,  
        unicorn=magenta!60!violet,  
        longhair=magenta!60!violet]  
\end{tikzpicture}
```



glasses duck

```
\begin{tikzpicture}  
  \duck[glasses=red!50!black]  
\end{tikzpicture}
```



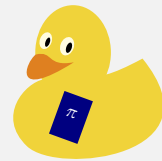
sunglasses duck

```
\begin{tikzpicture}  
  \duck[sunglasses]  
\end{tikzpicture}
```



book duck

```
\begin{tikzpicture}  
  \duck[book=\scalebox{0.5}{\text{TeX}}]  
\end{tikzpicture}  
\begin{tikzpicture}  
  \duck[book=\scalebox{0.6}{\pi}, bookcolour=blue!50!black]  
\end{tikzpicture}
```



magic duck

```
\begin{tikzpicture}  
  \duck[magichat, magicwand]  
\end{tikzpicture}  
\begin{tikzpicture}  
  \duck[magichat=teal, magicstars=blue!30!cyan, magicwand]  
\end{tikzpicture}
```



hat duck

```
\begin{tikzpicture}  
  \duck[cricket=red!50!black]  
\end{tikzpicture}
```



icecream duck

```
\begin{tikzpicture}
  \duck[icecream]
\end{tikzpicture}
\begin{tikzpicture}
  \duck[icecream=brown,
        flavoura=brown,
        flavourb=white,
        flavourc=red]
\end{tikzpicture}
```

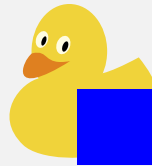


3 Further customisation

This package will never be able to do everything every potential user might want to do, as this number quickly approaches $\rightarrow \infty$. But as the ducks are simply things inside tikzpictures, all the heavy weapons of the tikz package are available for further customisation.

adding things to the duck

```
\begin{tikzpicture}
  \duck
  \fill[blue] (2,0) rectangle
    (1,1);
\end{tikzpicture}
```



monochrome duck

```
\begin{tikzpicture}
  \selectcolormodel{gray}
  \duck
\end{tikzpicture}
```



4 Examples

Some examples how the tikzducks can be customised:

samcarter duck

```
\begin{tikzpicture}
  \duck[body=yellow!50!brown!50!white,
        longhair=red!50!brown,
        jacket=blue!50!black]
\end{tikzpicture}
```



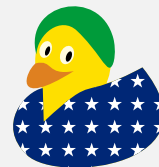
Paulo duck

```
\begin{tikzpicture}
  \duck[cap,cricket]
\end{tikzpicture}
```



Brazil duck

```
\begin{tikzpicture}
\definecolor{brazilgreen}{RGB}{0,155,58}
\definecolor{brazilyellow}{RGB}{254,223,0}
\definecolor{brazilblue}{RGB}{0,39,118}
  \duck[body=brazilyellow,
        shorthair=brazilgreen]
  \path[preaction={fill, brazilblue},pattern=
    fivepointed stars, pattern color=white]
    (0.500,1.145) .. controls (0.267, 1.102) and
      (-0.125,0.657) ..
    (0.289,0.261) .. controls (0.704,-0.135) and
      ( 2.863,0.130) ..
    (1.818,1.419) .. controls (0.938, 0.946) and
      ( 1.240,1.378) ..
    (0.513,0.700) -- cycle;
\end{tikzpicture}
```



duck in black

```
\begin{tikzpicture}
  \duck[grumpy, body=yellow!50!brown!50!white,
    tshirt=white, jacket=black, tie=black, hat
    =black, sunglasses=black]
\end{tikzpicture}
```



Prof. van Duck

```
\begin{tikzpicture}
  \duck[body=yellow!50!brown!40!white,
    crazyhair=gray!50!white,
    eyebrow,
    glasses=brown!70!black,
    book=\scalebox{0.2}{\$E=mc^2$},
    bookcolour=red!20!brown]
\end{tikzpicture}
```



DEK

```
\begin{tikzpicture}
  \duck[body=yellow!50!red!20!white,
    recedinghair=gray!50!white,
    eyebrow,
    tshirt=white!93!black,
    jacket=red!50!black,
    glasses=brown!70!lightgray,
    book=\scalebox{0.5}{\TeX},
    bookcolour=black!20!brown]
\end{tikzpicture}
```

