

Making the wind blades of a hydroelectric generator

Source: <https://www.lesfablesdalexandra.fr/Sat-14-Jun-2025-33880.html>

Title: Making the wind blades of a hydroelectric generator

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Building The Wind Turbine AssemblyBuilding The Rotor AssemblyBuilding The Axle and Completing The NacelleTesting The Rotor DesignsIn this experiment, you will test different types of rotors on the turbine. You will have two rotors for each design instead of three, like on a real turbine, since the latter is far more difficult to make. You will, of course, want to create some basic designs, such as flat rotors, both rotors curved in the same direction, each rotor curved in opp...See more on sciencebuddies

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.rcimgcol .cico { background: #f5f5f5; } .b_drk .rcimgcol .cico, .b_dark .rcimgcol .cico { background: unset; } .b_imgSet .b_hList li.square_m, .b_imgSet .b_hList li.tall_m { width: 75px; } .b_imgSet .b_hList li.tall_mlb { width: 113px; } .b_imgSet .b_hList li.tall_mln { width: 96px; } .b_imgSet .b_hList li.wide_m { width: 128px; } .b_imgSet .b_Card .b_hList li { padding-left: 1px; padding-right: 9px; } .b_imgSet .b_Card .b_hList li.tall_wfn { width: 80px; padding-right: 6px; } .b_imgSet .b_Card .b_hList li:last-child { padding-right: 1px; } .b_imgSet .b_Card .b_imgSetData { padding: 0 8px 8px; height: 40px; } .b_imgSet .b_Card .b_imgSetItem { box-shadow: 0 0 0 1px rgba(0,0,0,.05), 0 2px 3px 0 rgba(0,0,0,.1); border-radius: 6px; overflow: hidden; } .b_imgSet .b_imgSetData .b_imgSetData a { color: #444; outline-offset: 0; } .b_subModule .b_clearfix .b_mhdr .b_floatR .b_moreLink, .b_subModule .b_clearfix .b_mhdr .b_floatR .b_moreLink:visited, .b_subModule > .b_moreLink, .b_subModule > .b_moreLink:visited { color: #767676; } .b_imgSet .cico .b_placeholder { display: flex; justify-content: center; background-color: #f5f5f5; background-clip: content-box; } .b_imgSet .cico .b_placeholder a { display: flex; } .b_imgSet .cico .b_placeholder a img { width: 48px; height: 48px; margin: auto; } @media (max-width: 1362.9px) { #b_context .b_entityTP .b_imgSet li:nth-child(5) { display: none; } .b_imgSet .b_hList li.wide_m:nth-child(3) { display: none; } } @media (max-width: 1274.9px) { #b_context .b_entityTP .b_imgSet li:nth-child(4) { display: none; } .b_imgSet .b_hList li.wide_m:nth-child(2) { display: none; } } .rcimgcol .b_imgSet { content-visibility: auto; contain-intrinsic-size: 1px 124px; } .rcimgcol { height: 108px; padding-top: var(--smtc-gap-between-content-x-small); padding-bottom: var(--smtc-gap-between-content-x-small); } .b_algo:has(.b_agh) .rcimgcol { padding-top: var(--smtc-gap-between-content-xx-small); } .rcimgcol .b_imgSet .b_imgSet ul { overflow-x: auto; overflow-y: hidden; white-space: nowrap; padding-left: 0; } .rcimgcol .b_imgSet ul::-webkit-scrollbar { -webkit-appearance: none; } .rcimgcol .b_imgSet
```

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.b_hList>li{padding-right:var(--smtc-padding-ctrl-text-side)}.rcimgcol .b_imgSet
.cico{border-radius:unset}.rcimgcol .b_imgSet .b_hList>li:first-child .cico,.rcimgcol .b_imgSet
.b_hList>li:first-child .cico
a{border-radius:unset;border-top-left-radius:var(--mai-smtc-corner-card-default);border-bottom-left-radius:var
(--mai-smtc-corner-card-default);overflow:hidden}.rcimgcol .b_imgSet .b_hList>li:last-child .cico,.rcimgcol
.b_imgSet .b_hList>li:last-child .cico
a{border-radius:unset;border-top-right-radius:var(--mai-smtc-corner-card-default);border-bottom-right-radius:
var(--mai-smtc-corner-card-default);overflow:hidden}.rcimgcol .rcimgcol
.b_sideBleed{margin-left:unset;margin-right:unset}.rcimgcol .b_imgclgovr{cursor:pointer}.rcimgcol
.b_imgclgovr .cico img:hover{transform:scale(1.05);transition:transform .5s ease}#b_content
#b_results>.b_algo
.b_caption:has(.rcimgcol){padding-right:var(--mai-smtc-padding-card-default);margin-right:calc(-1*var(--mai
-smtc-padding-card-default));margin-left:calc(-1*var(--mai-smtc-padding-card-default));padding-left:var(--ma
i-smtc-padding-card-default)}.rcimgcol .b_imgSet .b_hList .cico a{display:flex;outline-offset:-2px}.rcimgcol
.b_hList>li{position:relative;padding-bottom:0}.rcimgcol .b_hList>li
.iacf_smol{pointer-events:none;border-top-right-radius:var(--mai-smtc-corner-card-default);border-bottom-rig
ht-radius:var(--mai-smtc-corner-card-default);white-space:normal}.rcimgcol .b_hList
.cico{margin-bottom:0}.iacf_smol{display:flex;justify-content:center;align-items:center;gap:var(--smtc-gap-b
etween-content-xx-small);width:100%;height:100%;background:rgba(0,0,0,.6);position:absolute;left:0;top:0;c
olor:var(--mai-smtc-foreground-ctrl-on-image-rest);font:var(--bing-smtc-text-global-body2-strong);flex-wrap:
wrap;align-content:center;text-align:center}.iacf_smol:hover{text-decoration:underline}.iacfmit[data-nohov]
.iacfimgc .cico
img{transform:none}.b_algoTextCarousel{margin-left:0;margin-right:0;padding-bottom:var(--smtc-gap-betw
een-content-x-small)}.b_algoTextCarousel
.b_insideSlide{padding:var(--mai-smtc-padding-card-default);height:200px;width:200px;display:flex;flex-dire
ction:column;border-radius:var(--mai-smtc-corner-card-default);border:1px solid
var(--smtc-stroke-ctrl-on-neutral-rest);box-sizing:border-box;background:var(--smtc-background-card-on-pri
mary-default-rest)}.b_algoTextCarousel
.b_insideSlide:hover{background:var(--smtc-background-card-on-primary-default-hover)}.b_algoTextCarous
el
.b_insideSlide:active{background:var(--smtc-background-card-on-primary-default-pressed)}.b_algoTextCaro
usel .b_slidebar .slide{border-radius:var(--mai-smtc-corner-card-default)}.b_algoTextCarousel .b_slidebar
.slide a:hover{text-decoration:none}.b_algoTextCarousel .b_slidebar .slide
.b_text{color:var(--smtc-foreground-content-neutral-secondary);font:var(--bing-smtc-text-global-body3);displ
ay:-webkit-box;-webkit-box-orient:vertical;-webkit-line-clamp:7;overflow:hidden;text-overflow:ellipsis;word-
wrap:break-word}.b_algoTextCarousel .b_textcarouselfooter{margin-top:auto}.b_algoTextCarousel
.b_textcarouselfooter .b_upvote
.rms_img{height:12px;width:12px;padding-right:var(--smtc-gap-between-content-xx-small);vertical-align:mid
dle;margin-top:-2px}.b_algoTextCarousel .b_textcarouselfooter
.b_upvote{font:var(--bing-smtc-text-global-caption2);color:var(--bing-smtc-foreground-content-neutral-secon
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dary-alt)}.b_algoTextCarousel .b_slidebar .slide:has(.b_textcarouselfooter)
.b_text{-webkit-line-clamp:6}.b_algoTextCarousel.b_algoTxtCalSml
.b_insideSlide{padding:var(--smtc-gap-between-content-small)
var(--mai-smtc-padding-card-default);height:88px}.b_algoTextCarousel.b_algoTxtCalSml .b_slidebar .slide
.b_text{-webkit-line-clamp:3}.b_acf_crsl .slide.b_crslitm>*:last-child,.b_acf_crsl .b_slideexp,#b_topw
.b_wpt_container .b_slidesContainer:has(.b_acf_crsl) .b_slidesContainer{margin-bottom:unset}#b_topw
.b_wpt_container:has(.b_acf_crsl) .b_viewport{padding:unset}#b_topw .b_wpt_container
.b_wpt_bl:has(.b_acf_crsl){overflow:visible}.b_acf_crsl .b_slidesContainer
.slide.b_crslitm{overflow:unset}.b_acf_crsl .btn.next .bg,.b_acf_crsl .btn.prev .bg{background:unset}#b_topw
.b_wpt_container .b_acf_crsl .btn.bld.next,#b_topw .b_wpt_container .b_acf_crsl .btn.bld.prev,.b_acf_crsl
.btn.next,.b_acf_crsl .btn.prev{z-index:5}.b_acf_crsl.b_fadebg .btn.next
.bg{background:linear-gradient(90deg,var(--bing-smtc-background-ctrl-fade-on-primary-stop-0)
0%,var(--smtc-background-card-on-primary-default-rest) 60%)} .b_acf_crsl.b_fadebg .btn.prev
.bg{background:linear-gradient(270deg,var(--bing-smtc-background-ctrl-fade-on-primary-stop-0)
0%,var(--smtc-background-card-on-primary-default-rest) 60%)} .b_dark .b_acf_crsl .b_slidebar
.slide{background-color:unset}[dir="rtl"] .b_acf_crsl.b_fadebg .btn.next
.bg{background:linear-gradient(270deg,var(--bing-smtc-background-ctrl-fade-on-primary-stop-0)
0%,var(--smtc-background-card-on-primary-default-rest) 60%)}[dir="rtl"] .b_acf_crsl.b_fadebg .btn.prev
.bg{background:linear-gradient(90deg,var(--bing-smtc-background-ctrl-fade-on-primary-stop-0)
0%,var(--smtc-background-card-on-primary-default-rest) 60%)} .b_acf_crsl.hovexp .leftmost .b_overlay
.b_viewport,.b_acf_crsl.hovexp .leftrightmost .b_overlay .b_viewport,.b_acf_crsl.hovexp .b_overlay
.b_viewport{padding-left:var(--smtc-gap-between-content-x-large)!important;margin-left:calc(var(--smtc-gap-
between-content-x-large)*-1)!important}.b_acf_crsl.hovexp .middle .b_overlay
.b_viewport,.b_acf_crsl.hovexp .rightmost .b_overlay
.b_viewport{padding-left:unset!important;margin-left:unset!important}.b_colg_4xs
.slide{margin-inline-end:var(--smtc-padding-ctrl-text-side)!important}.b_rowg_4xs
.slide>{*margin-bottom:var(--smtc-padding-ctrl-text-side)!important}.b_colg_3xs
.slide{margin-inline-end:var(--smtc-padding-ctrl-sm-text-top)!important}.b_rowg_3xs
.slide>{*margin-bottom:var(--smtc-padding-ctrl-sm-text-top)!important}.b_colg_2xs
.slide{margin-inline-end:var(--smtc-gap-between-content-xx-small)!important}.b_rowg_2xs
.slide>{*margin-bottom:var(--smtc-gap-between-content-xx-small)!important}.b_colg_xs
.slide{margin-inline-end:var(--smtc-gap-between-content-x-small)!important}.b_rowg_xs
.slide>{*margin-bottom:var(--smtc-gap-between-content-x-small)!important}.b_colg_s
.slide{margin-inline-end:var(--smtc-gap-between-content-small)!important}.b_rowg_s
.slide>{*margin-bottom:var(--smtc-gap-between-content-small)!important}.b_colg_m
.slide{margin-inline-end:var(--smtc-gap-between-content-medium)!important}.b_rowg_m
.slide>{*margin-bottom:var(--smtc-gap-between-content-medium)!important}.b_colg_l
.slide{margin-inline-end:var(--mai-smtc-padding-card-default)!important}.b_rowg_l
.slide>{*margin-bottom:var(--mai-smtc-padding-card-default)!important}.b_colg_xl
.slide{margin-inline-end:var(--smtc-gap-between-content-x-large)!important}.b_rowg_xl
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```
.slide>{*margin-bottom:var(--smtc-gap-between-content-x-large)!important}.b_colg_2xl
.slide{margin-inline-end:var(--smtc-gap-between-content-xx-large)!important}.b_rowg_2xl
.slide>{*margin-bottom:var(--smtc-gap-between-content-xx-large)!important}.b_colg_3xl
.slide{margin-inline-end:var(--smtc-padding-content-xx-large)!important}.b_rowg_3xl
.slide>{*margin-bottom:var(--smtc-padding-content-xx-large)!important}.b_colg_4xl
.slide{margin-inline-end:var(--smtc-padding-content-xxx-large)!important}.b_rowg_4xl
.slide>{*margin-bottom:var(--smtc-padding-content-xxx-large)!important}.b_acf_card{box-sizing:border-box
;border-radius:var(--mai-smtc-corner-card-default);-webkit-user-select:none;user-select:none;position:relative;
width:100%;height:100%}.b_acf_card.b_acf_bckgnd{background:var(--bing-smtc-background-card-on-primar
y-alt-rest)}.b_acf_card_link{border-radius:var(--mai-smtc-corner-card-default);outline-offset:-1px;position:a
bsolute;width:100%;height:100%}.b_acf_card_link:hover{text-decoration:unset}.acf_col1_4{width:140px}.a
cf_col1_6{width:160px}@media(forced-colors:active){.b_acf_card_link{background-color:unset}.b_acf_car
d[link]
.acf_t_c_title{color:LinkText!important}.acf_col1{width:88px}.acf_col2{width:200px}.acf_col3{width:312
px}.acf_col4{width:424px}.acf_col5{width:536px}.acf_col6{width:648px}.acf_col7{width:760px}.acf_col8
{width:872px}.acf_col9{width:984px}.acf_col10{width:1096px}.acf_col11{width:1208px}.acf_col12{width:
1320px}.acf_row1{height:88px}.acf_row2{height:200px}.acf_row3{height:312px}.acf_row4{height:424px}.
acf_row5{height:536px}.acf_row6{height:648px}.acf_row7{height:760px}.acf_row8{height:872px}.acf_row
9{height:984px}.acf_row10{height:1096px}.acf_row11{height:1208px}.acf_row12{height:1320px}.b_overla
y
.btn{height:100%;position:absolute;width:20px;cursor:pointer;z-index:1;-moz-user-select:none;-khtml-user-se
lect:none;-webkit-user-select:none;-o-user-select:none;-ms-user-select:none;user-select:none}.b_overlay
.*{transition:opacity
.3s
linear}.b_overlay
.btn
.bg{position:absolute;width:100%;height:100%;background-color:#444;opacity:.3;filter:alpha(opacity=30)}.b
_overlay
.btn.nobg
.bg{background-color:transparent}.b_overlay
.btn:hover
.bg{opacity:.7;filter:alpha(opacity=70)}.b_overlay
.btn.nohover:hover
.bg{opacity:.3;filter:alpha(opacity=30)}.b_overlay
.btn.disabled
.bg,.b_overlay
.btn.nohover.disabled
.bg{opacity:.01;filter:alpha(opacity=1)}.b_overlay
.btn.hidden
.bg,.b_overlay
.btn.nohover.hidden
.bg{opacity:.01;filter:alpha(opacity=1)}.b_overlay
.btn.disabled,.b_overlay
.btn.hidden{cursor:default}.b_overlay
.btn
.cr{text-align:center;line-height:0}.b_overlay
.btn.bld.polecarchev.hidden
.cr,.b_overlay
.btn.bld.polecarchev.disabled
.cr,.b_overlay
.btn.bld.rounded.hidden
.cr,.b_overlay
.btn.bld.rounded.disabled
.cr,.b_overlay
.btn.bld.bigrounded.hidden
.cr,.b_overlay
.btn.bld.bigrounded.disabled
.cr{opacity:.01;visibility:unset}.b_overlay
.btn.hidden
.cr,.b_overlay
.btn.disabled
.cr{visibility:hidden}.b_overlay
.btn.prev.ltr
.cr,.b_overlay
.btn.next.rtl
.cr{transform:scaleX(-1)}.b_overlay
.btn.next{right:0}.b_overlay
.btn
.cr>div{background-size:40px
200px;background-repeat:no-repeat;width:20px;height:40px;background-position:-10px 0}.b_overlay
.btn
.cr>div{background-image:url(/rp/S9IIHAMBBy7JxaR5m1KRvMwDswyw.png)}.b_overlay
.acfdefaultchev.btn.next{right:0!important}.b_overlay
.acfdefaultchev.btn.prev{left:0!important}.b_overlay
.acfdefaultchev.btn:hover
.bg{opacity:unset;filter:unset}.b_overlay
.acfdefaultchev.btn.disabled,.b_overlay
.acfdefaultchev.btn.hidden{display:none}.b_overlay
.acfdefaultchev.btn{width:48px}.b_overlay
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```
.acfdefaultchev.btn .bg{opacity:unset}.b_overlay .acfdefaultchev.btn.prev .cr{left:0}.b_overlay
.acfdefaultchev.btn.next .cr{right:0}.acfdefaultchev
.cr{display:flex;justify-content:center;align-items:center;flex:1 0
0;align-self:stretch;width:36px;height:48px;position:absolute;margin:unset;opacity:unset;transition:unset;border-
radius:var(--smtc-corner-ctrl-lg-rest);background:var(--bing-smtc-background-container);box-shadow:var(-
-bing-smtc-shadows-card-hover-3);fill:var(--smtc-foreground-content-neutral-secondary)}.acfdefaultchev
.cr:hover{background:var(--smtc-background-card-on-primary-default-hover)}.acfdefaultchev
.cr:active{background:var(--smtc-background-card-on-primary-default-pressed)}.b_ofchev
.acfdefaultchev.btn.prev .cr{left:-18px}.b_ofchev .acfdefaultchev.btn.next
.cr{right:-18px}@media(forced-colors:active){.acfdefaultchev .cr{background:ButtonFace}.acfdefaultchev
.cr>svg{fill:ButtonText}.acfdefaultchev .cr:hover,.acfdefaultchev
.cr:has(:focus-visible){background:Highlight}}.b_overlay .btn.bld.prev{left:-20px}.b_overlay
.btn.bld.next{right:-20px}.slide.b_crslitm.b_sldfitcont{width:fit-content}#slideexp0_DBB87D .slide:last-child
{ margin-inline-end: 0; } #slideexp0_DBB87D .slide>*:last-child { margin-bottom: unset !important; }
.b_acf_crsl #slideexp0_DBB87Dc .b_slidebar .slide { box-shadow: unset; -webkit-box-shadow: unset; }
.b_acf_crsl.hovexp #slideexp0_DBB87Dc.b_slideexp .b_overlay .b_slidesContainer { overflow: visible
!important; } .b_acf_crsl.hovexp #slideexp0_DBB87Dc.b_slideexp .b_overlay .b_viewport { padding-top:
12px !important; margin-top: -12px !important; padding-bottom: 12px !important; margin-bottom: -12px
!important; }InstructablesFree Professional Wind Turbine Blade - InstructablesSee MoreFree Professional
Wind Turbine Blade: Build the prototype of a wind turbine blade with fiber glass, cardboard, software, tools
and affordable or free materials.
```

The water reaches and pushes the blade of a turbine located at the bottom of the penstock. The turbine blades are attached to a rotor and driveshaft--just like your Styrofoam cup and skewer or thin ...

Discover how to build a DIY wind generator with wooden blades using this step-by-step guide. Learn the diy wind generator wooden blades guide for a sustainable energy solution.

This instructable provides a step-by-step guide on how to create a wind turbine blade from wood, bamboo, or PVC pipe. The process involves cutting the wood to length, cutting it into ...

You can build blades for a wind generator with your own hands from ordinary materials, without using special equipment. We will tell you which blade shape is more efficient and help you choose the ...

Find out how a wind turbine can use the power of the wind to generate energy in this science fair engineering project. You'll design various blades to find out which produces the most energy, and put ...

It involves the conversion of kinetic energy generated in the wind into mechanical power. The mechanical power generated is then converted into work such as grinding grain, pumping water or a ...



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Learn about the importance of hydro turbine blade design and how they aid in the production of hydroelectric energy.

Website: <https://www.lesfablesdalexandra.fr>

