



# HANDBOOK OF KNOTS

EXPANDED EDITION



DES PAWSON

Copyrighted Material

# Handbook Of Knots Expanded Edition Des Pawson

**CH Cherryholmes**



## **Handbook Of Knots Expanded Edition Des Pawson:**

THE HANDBOOK OF KNOTS Des Pawson, **The Handbook of Knots** Des Pawson, 1998 This practical guide to tying more than 100 different kinds of knots features step by step illustrated instructions for each knot plus information about the construction storage maintenance and usage of rope 800 photos illustrations Charts **Senior High Core Collection** Raymond W. Barber, Patrice Bartell, 2007 Features annotations for more than 6 200 works in the main volume 2007 and more than 2 400 new titles in three annual supplements published 2008 through 2010 New coverage of biographies art sports Islam the Middle East cultural diversity and other contemporary topics keeps your library s collection as current as today s headlines *Public Library Core Collection* John Greenfieldt, Patrice Bartell, 2008 Wilson s Public Library Core Collection Nonfiction 13th Edition 2008 recommends reference and nonfiction books for the general adult audience It is a guide to over 9 000 books over 6 500 titles are new to this edition plus review sources and other professional aids for librarians and media specialists Acquisitions librarians reference librarians and cataloguers can all use this reliable guide to building and maintaining a well rounded collection of the most highly recommended reference and nonfiction books for adults All titles are selected by librarians editors advisors and nominators all of them experts in public library services The collection is a valuable tool for collection development and maintenance reader s advisory weeding your collection and curriculum support Richly enhanced records provide a wealth of useful information All entries include complete bibliographic data as well as price subject headings annotations grade level Dewey classification cover art and quotations from reviews Many entries also list awards best book lists and starred reviews Save Time Efficiently organised and includes Starred titles Save Money Allocate your resources to the best materials available Stay Relevant Discover the best in important contemporary categories Complete Coverage Includes recommendations on periodicals and electronic resources too Four Year Subscription This Core Collection was originally sold as a four year subscription The core edition published in 2008 delivers a library bound volume with an extensive selective list of recommended books From 2009 to 2011 Wilson published extensive paperback supplements to the 2008 edition A new cycle of materials will begin in 2012 However the 2008 to 2011 materials are currently available Buyers of them will receive all these materials immediately All four years are only 420 Uniquely Valuable There is nothing quite like Wilson Core Collections The accumulated expertise of our selectors and the unquestioned reputation of these collections is invaluable Wilson Core Collections are universally recognised as impartial and expert aids to collection development that assist and reinforce the judgement of librarians everywhere Selection to a Wilson Core Collection is strong support to any challenged purchase Contemporary Relevance This Core Collection includes broad updates in the areas of crafts terrorism and international security environment and global warming diseases and medicine and religion plus other contemporary topics that keep the library s collection as current as today s headlines Other Key Features Classified Catalogue A list arranged by Dewey Decimal Classification with complete cataloguing information for

each book Author Title Subject and Analytical Index An in depth key to the information in Classified Catalogue including author and title analytics for works contained in anthologies and collections Richly enhanced records provide complete bibliographic data price subject headings descriptive annotations grade level Dewey classification evaluative quotations from a review when available Listing works published in the United States or published in Canada or the United Kingdom and distributed in the United States Public Library Core Collection Nonfiction features extensive revisions in the areas of health science and technology personal finance sports cooking and gardening and handicrafts Biography poetry and literary criticism continue to receive comprehensive treatment Reference works in all subject fields are included Backpacker,2005 **Book Review Index** ,2003 Vols 8 10 of the 1965 1984 master cumulation constitute a title index

**Small-Format Aerial Photography and UAS Imagery** James S. Aber,Irene Marzolff,Johannes Ries,Susan Elizabeth Ward Aber,2019-09-17 Small Format Aerial Photography and UAS Imagery Principles Techniques and Geoscience Applications Second Edition provides basic and advanced principles and techniques for Small Format Aerial Photography SFAP focusing on manned and unmanned aerial systems including drones kites blimps powered paragliders and fixed wing and copter SFAP The authors focus on everything from digital image processing and interpretation of data to travel and setup for the best result making this a comprehensive guide for any user Nine case studies in a variety of environments including gullies high altitudes wetlands and recreational architecture are included to enhance learning This new edition includes small unmanned aerial systems UAS and discusses changes in legal practices across the globe In addition the book presents the history of SFAP providing background and context for new developments Provides background and context for new developments in SFAP Covers the legal implications for small format aerial systems in different countries Discusses unmanned aerial systems drones and their applications Features new case studies for different applications including vineyard monitoring and impacts of wind energy Forthcoming Books Rose Arny,2004 *The Catholic Library World* John M. O'Loughlin,Francis Emmett Fitzgerald,1998 *Des Pawson's Knot Craft and Rope Mats* Des Pawson,2016-09-08 This wonderful collection of Des Pawson s personal ropecraft recipes combines an expanded and now full colour collection of projects from Des s popular Des Pawson s Knot Craft together with 20 new and brilliant mat designs Readers can learn how to make 60 different ropework projects including mats bellropes key fobs fenders and doorstops Along with fascinating tidbits of nautical history as background to many projects and guidance as to how they can be the starting point for many other items Des gives step by step instructions on how to put these knots together to form the finished article and advice on the size and lengths of the materials required just as you would find in a recipe book Full colour illustrations clear and practical tips on technique and photos of the finished products mean that this book is ideal for all abilities With this book to hand readers will have the confidence to start making desirable objects with knots because as Des says this is the book that makes all other knot books work Knots Step by Step Des Pawson,2022-01-13 This is the one stop guide to knots for every

purpose and occasion *Knots Step by Step* is the essential guide to knowing and tying knots for every purpose From figure of eights to reef knots and highwayman s hitches to monkey s fists this book includes every knot you ever thought you needed to tie and more Covering more than 100 knots for climbing sailing horse riding survival and fishing as well as for gardening DIY medical and decorative purposes the clear layout and photographs of every step will move you on from knot tying novice in no time You ll also learn all about the different types of knots and the fascinating stories behind how many of these came into being as well as their original functions *Knots Step by Step* is the ideal book to have to hand for whenever a knot is needed so grab a copy now and be prepared for every knotty scenario

*Des Pawson's Knot Craft* Des Pawson,2009-12-18 This treasure trove of Des Pawson s personal ropecraft recipes contains projects ranging from bellropes key fobs and fenders to mats doorstops knife lanyards and belts The second edition has been expanded to include more of Des s enticing ropework projects Along with fascinating tit bits of nautical history as background to the many projects and guidance as to how they can be the starting point for many other items Des gives step by step instructions on how to put these knots together to form the finished article and provides advice on the size and lengths of the materials required just as you would expect from a recipe book With this book to hand readers will have the confidence to start making desirable objects with knots because as Des says this is the book that makes all other knot books work You ll certainly never look at a frayed off cut of rope in quite the same way again

*Classic Boat A must Waterways World A gem of a book Canal Boat and Inland Waterways Handbook of Knots* Des Pawson,2004 An illustrated practical guide to tying more than 100 knots

*Knots* DK,2021-01-05 The ultimate visual guide to all types of knots Avoid getting yourself into a tangle by following detailed step by step instructions that show you how to tie and untie more than 100 knots Whichever knotty scenario you find yourself in from in your own garden to up in the mountains or across seas this reference book will take you from novice to expert rope tier Covering more than 100 knots for climbing sailing horse riding survival camping and fishing as well as for gardening DIY medical and even decorative purposes The photographs of every step use strands of rope in different colors so you can clearly see how to tie each knot You ll learn all about the fascinating stories behind how many of these knots were first tied as well as their original functions in this knot tying book Each knot has simple to follow instructions on the features and benefits and what they can be used for Includes knots such as figure of eights reef knots highwayman s hitches and monkey s fists Find out about techniques like sheer lashing and the constrictor knot The book begins by teaching you all about rope materials and construction and how to maintain them At the end of the book the glossary and index so you can easily find just the knot you re in need of There are more than 1 000 photographs illustrations and artworks Expert author Des Pawson is a founding member of the International Guild of Knot Tyers

*One Stop Practical Guide to Tying and Using Knots Knots The Complete Visual Guide* is arranged by chapters covering Stopper Knots Binding Knots Bends Hitches Loops Plaits Sennits and Splices Whippings It also includes detailed instructions for over 100 knots and fantastic beginner guides to help boy scouts girl scouts first time climbers and

everything in between become experienced campers sailors and mountaineers Inside this visual guide you ll find Accessible text and tables that explain the features and benefits of each knot Sequence spreads display the top five knots you need for a range of purposes from sailing and fishing to gardening and gift wrapping Fun facts about the oldest knots and their history Essential information on how to choose the best rope to use and how to maintain them More from DK Books Don t miss out on more fascinating visual reference books Look for The Complete Sailing Manual How to Garden and The Survival Handbook from DK Books to build on your new found knot skills

**Des Pawson's Knot Craft** Des Pawson,2011 Des Pawson has been a professional ropeworker for more than 25 years His passion for knots goes back to the time when aged 7 he was given a book with some knots in it He has studied knots and sailors ropework ever since Over that time he has built up a number of recipe books containing the information required to make each item whether it is a key fob fender mat or knife lanyard Des Pawson s Knot Craft contains a selection from those recipe books giving the reader the basic designs illustrating which knots and sennits are used to make them Here is a step by step breakdown of how to put the knots together as well as the size and lengths of materials required Many books have been published on how to tie practical knots but not many books give help in putting the knots together to make an object

**Knots Step by Step** Des Pawson,2022 This is the one stop e guide to knots for every purpose and occasion Knots Step by Step is the essential e guide to knowing and tying knots for every purpose From figure of eights to reef knots and highwayman s hitches to monkey s fists this ebook includes every knot you ever thought you needed to tie and more Covering more than 100 knots for climbing sailing horse riding survival and fishing as well as for gardening DIY medical and decorative purposes the clear layout and photographs of every step will move you on from knot tying novice in no time You ll also learn all about the different types of knots and the fascinating stories behind how many of these came into being as well as their original functions Knots Step by Step is the ideal ebook to have to hand for whenever a knot is needed so grab a copy now and be prepared for every knotty scenario

**Des Pawson's Knot Craft** Des Pawson,2007 **Knots Step by Step** ,2012-04-02 From camping to rock climbing your safety depends on choosing and tying knots correctly With this handy guide you can tackle every task from DIY to tying fishing or sailing lines with complete confidence Knots Step by Step presents the 100 most useful knots for sailing fishing camping climbing and decorative uses It explains how to tie highwayman hitches monkey fists bowlines and many other key knots Its clear uncluttered images show you exactly what to do taking you from the easiest overhand knot to the decorative Turk s head five lead four bight knot This indispensable book identifies the knot you need Are you climbing and depend on a failsafe knot The figure of eight s distinctive shape makes it easy to check it has been tied correctly A slipped release is useful when you need to untie your knot quickly And if you ever want to know if a knot has been untied try the quirky thief knot so called because a thief will betray their presence by retying it incorrectly You ll also learn the history behind the different types of knots and the fascinating stories behind how many of them came about Knots Step by Step comes with a

practice rope attached to the book so you can practice the knots as many times as you want until you are completely confident Without doubt this is the ideal book to have to hand for whenever a knot is needed      **Creative Ropecraft** Stuart Grainger,2021-11-11      Pocket Guide to Knots & Splices Des Pawson,1999

Embark on a breathtaking journey through nature and adventure with is mesmerizing ebook, Witness the Wonders in **Handbook Of Knots Expanded Edition Des Pawson** . This immersive experience, available for download in a PDF format ( Download in PDF: \*), transports you to the heart of natural marvels and thrilling escapades. Download now and let the adventure begin!

<https://staging.conocer.cide.edu/data/Resources/fetch.php/La%20Primavera%20spring%20First%20Step%20Nonfiction%20Seasons.pdf>

### **Table of Contents Handbook Of Knots Expanded Edition Des Pawson**

1. Understanding the eBook Handbook Of Knots Expanded Edition Des Pawson
  - The Rise of Digital Reading Handbook Of Knots Expanded Edition Des Pawson
  - Advantages of eBooks Over Traditional Books
2. Identifying Handbook Of Knots Expanded Edition Des Pawson
  - Exploring Different Genres
  - Considering Fiction vs. Non-Fiction
  - Determining Your Reading Goals
3. Choosing the Right eBook Platform
  - Popular eBook Platforms
  - Features to Look for in an Handbook Of Knots Expanded Edition Des Pawson
  - User-Friendly Interface
4. Exploring eBook Recommendations from Handbook Of Knots Expanded Edition Des Pawson
  - Personalized Recommendations
  - Handbook Of Knots Expanded Edition Des Pawson User Reviews and Ratings
  - Handbook Of Knots Expanded Edition Des Pawson and Bestseller Lists
5. Accessing Handbook Of Knots Expanded Edition Des Pawson Free and Paid eBooks
  - Handbook Of Knots Expanded Edition Des Pawson Public Domain eBooks
  - Handbook Of Knots Expanded Edition Des Pawson eBook Subscription Services



- Handbook Of Knots Expanded Edition Des Pawson Budget-Friendly Options
- 6. Navigating Handbook Of Knots Expanded Edition Des Pawson eBook Formats
  - ePub, PDF, MOBI, and More
  - Handbook Of Knots Expanded Edition Des Pawson Compatibility with Devices
  - Handbook Of Knots Expanded Edition Des Pawson Enhanced eBook Features
- 7. Enhancing Your Reading Experience
  - Adjustable Fonts and Text Sizes of Handbook Of Knots Expanded Edition Des Pawson
  - Highlighting and Note-Taking Handbook Of Knots Expanded Edition Des Pawson
  - Interactive Elements Handbook Of Knots Expanded Edition Des Pawson
- 8. Staying Engaged with Handbook Of Knots Expanded Edition Des Pawson
  - Joining Online Reading Communities
  - Participating in Virtual Book Clubs
  - Following Authors and Publishers Handbook Of Knots Expanded Edition Des Pawson
- 9. Balancing eBooks and Physical Books Handbook Of Knots Expanded Edition Des Pawson
  - Benefits of a Digital Library
  - Creating a Diverse Reading Collection Handbook Of Knots Expanded Edition Des Pawson
- 10. Overcoming Reading Challenges
  - Dealing with Digital Eye Strain
  - Minimizing Distractions
  - Managing Screen Time
- 11. Cultivating a Reading Routine Handbook Of Knots Expanded Edition Des Pawson
  - Setting Reading Goals Handbook Of Knots Expanded Edition Des Pawson
  - Carving Out Dedicated Reading Time
- 12. Sourcing Reliable Information of Handbook Of Knots Expanded Edition Des Pawson
  - Fact-Checking eBook Content of Handbook Of Knots Expanded Edition Des Pawson
  - Distinguishing Credible Sources
- 13. Promoting Lifelong Learning
  - Utilizing eBooks for Skill Development
  - Exploring Educational eBooks
- 14. Embracing eBook Trends

- Integration of Multimedia Elements
- Interactive and Gamified eBooks

### Handbook Of Knots Expanded Edition Des Pawson Introduction

Handbook Of Knots Expanded Edition Des Pawson Offers over 60,000 free eBooks, including many classics that are in the public domain. Open Library: Provides access to over 1 million free eBooks, including classic literature and contemporary works. Handbook Of Knots Expanded Edition Des Pawson Offers a vast collection of books, some of which are available for free as PDF downloads, particularly older books in the public domain. Handbook Of Knots Expanded Edition Des Pawson : This website hosts a vast collection of scientific articles, books, and textbooks. While it operates in a legal gray area due to copyright issues, its a popular resource for finding various publications. Internet Archive for Handbook Of Knots Expanded Edition Des Pawson : Has an extensive collection of digital content, including books, articles, videos, and more. It has a massive library of free downloadable books. Free-eBooks Handbook Of Knots Expanded Edition Des Pawson Offers a diverse range of free eBooks across various genres. Handbook Of Knots Expanded Edition Des Pawson Focuses mainly on educational books, textbooks, and business books. It offers free PDF downloads for educational purposes. Handbook Of Knots Expanded Edition Des Pawson Provides a large selection of free eBooks in different genres, which are available for download in various formats, including PDF. Finding specific Handbook Of Knots Expanded Edition Des Pawson, especially related to Handbook Of Knots Expanded Edition Des Pawson, might be challenging as theyre often artistic creations rather than practical blueprints. However, you can explore the following steps to search for or create your own Online Searches: Look for websites, forums, or blogs dedicated to Handbook Of Knots Expanded Edition Des Pawson, Sometimes enthusiasts share their designs or concepts in PDF format. Books and Magazines Some Handbook Of Knots Expanded Edition Des Pawson books or magazines might include. Look for these in online stores or libraries. Remember that while Handbook Of Knots Expanded Edition Des Pawson, sharing copyrighted material without permission is not legal. Always ensure youre either creating your own or obtaining them from legitimate sources that allow sharing and downloading. Library Check if your local library offers eBook lending services. Many libraries have digital catalogs where you can borrow Handbook Of Knots Expanded Edition Des Pawson eBooks for free, including popular titles. Online Retailers: Websites like Amazon, Google Books, or Apple Books often sell eBooks. Sometimes, authors or publishers offer promotions or free periods for certain books. Authors Website Occasionally, authors provide excerpts or short stories for free on their websites. While this might not be the Handbook Of Knots Expanded Edition Des Pawson full book , it can give you a taste of the authors writing style. Subscription Services Platforms like Kindle Unlimited or Scribd offer subscription-based access to a wide range of Handbook Of Knots Expanded Edition Des Pawson eBooks, including some popular titles.

## **FAQs About Handbook Of Knots Expanded Edition Des Pawson Books**

How do I know which eBook platform is the best for me? Finding the best eBook platform depends on your reading preferences and device compatibility. Research different platforms, read user reviews, and explore their features before making a choice. Are free eBooks of good quality? Yes, many reputable platforms offer high-quality free eBooks, including classics and public domain works. However, make sure to verify the source to ensure the eBook credibility. Can I read eBooks without an eReader? Absolutely! Most eBook platforms offer web-based readers or mobile apps that allow you to read eBooks on your computer, tablet, or smartphone. How do I avoid digital eye strain while reading eBooks? To prevent digital eye strain, take regular breaks, adjust the font size and background color, and ensure proper lighting while reading eBooks. What the advantage of interactive eBooks? Interactive eBooks incorporate multimedia elements, quizzes, and activities, enhancing the reader engagement and providing a more immersive learning experience. Handbook Of Knots Expanded Edition Des Pawson is one of the best book in our library for free trial. We provide copy of Handbook Of Knots Expanded Edition Des Pawson in digital format, so the resources that you find are reliable. There are also many Ebooks of related with Handbook Of Knots Expanded Edition Des Pawson. Where to download Handbook Of Knots Expanded Edition Des Pawson online for free? Are you looking for Handbook Of Knots Expanded Edition Des Pawson PDF? This is definitely going to save you time and cash in something you should think about.

## **Find Handbook Of Knots Expanded Edition Des Pawson :**

*la primavera/spring first step nonfiction - seasons*

*la seigneurie de philippe aubert de gaspé saint-jean-porte-joli collection loisirs et culture*

*la primera mujer*

*la savoie histoire dun departement*

*laboratory textbook of anatomy and physiology*

*la vie sans conditions maaatriser les mysta res de la realita personnelle*

**la puissance du sacra lhomme la nature et lart en afrique noire voyages intarieurs**

**la vie en rose the singers & songs of 20**

**laboratory earth the planetary gamble we by schneider stephen**

*la planate r voyage au pays des nombres rael*

*laboratory manual for tout ensemble a complete intermediate french program*

*laboratory ventilation guidebook*

**la8 seasonal changes**

[laale aux trente cercueils](#)

[labour in british society 1830-1914](#)

**Handbook Of Knots Expanded Edition Des Pawson :**

Training Manual for CNPR Training Program | NAPSRx Training Manual for CNPR Pharmaceutical Sales Training · Practice quizzes · CNPR Exam: 160 questions (Web based timed exam of 120 minutes/ or 45 seconds per ... CNPR Pharmaceutical Sales Training Program The association has created the CNPR Certification - Pharmaceutical Sales Training Manual which includes everything you will need to know to separate yourself ... NAPSR Pharmaceutical Sales Training Manual Revised ... Manual Revised 16th Edition [National Association of Pharmaceutical Sales ... The CNPR Training Program is a must need if you want to work in Pharmaceutical Sales. National Association Of Pharmaceutical Sales ... Pharmaceutical Sales Training Manual 2005 Revised Edition. by National Association of Pharmaceutical Sales Representatives · Paperback. Pharmaceutical sales Training Manual PDF (Free) We've rounded up the most effective pharmaceutical sales training manual samples that you can use to improve the performance of your sales team and increase ... NAPSR Pharmaceutical Sales Training Manual Mar 14, 2014 — I took the CNPR training course in 2005 and it took me about 50 hours to complete. The training on the pharmacology, pharmacodynamics, medical ... C. N. P. R Pharmaceutical Sales Training Manual The NAPSRx's CNPR Pharmaceutical Sales Manual prepares students for their CNPR exam while providing the vocational knowlege needed for anyone looking to ... NAPSRX Pharmaceutical Sales Training Manual (17th Ed) Manual has everything you need to pass the CNPR exam and get CNPR certified. No pages are missing. This manual is the only thing you need to study to pass exam. Pharma Sales Rep and CNPR requirements : r/sales Hey yall looking to get into medical sales or pharma sales. I got about 7 years sales experience between selling piers, cars, ... Ditch Witch 1420 Trenchers Owner Operator Maintenance ... Original factory manual used as a guide to operate your equipment. Condition: Used Please call us toll free 866-586-0949 to get pricing on a brand new manual. Operator Manuals Looking for a particular part or operator manual? You can print/download/view any part or operator manual for any model machine. Some manuals are available ... DITCH WITCH 1410 1420 Walk Behind Trencher Shop ... Ditch Witch 1410 1420 Walk Behind Trencher Shop Service Repair Manual Book ; Unsold \$199.00 \$187.06 Buy It Now or Best Offer, FREE Shipping, 30-Day Returns, eBay ... Parts Lookup QUICK, EASY ACCESS TO ALL DITCH WITCH SERVICE PARTS AND MANUALS. ... It's the new Parts Lookup tool. Redesigned to give an enhanced, mobile-friendly customer ... DITCH WITCH 1410 1420 SERVICE REPAIR PARTS ... DITCH WITCH 1410 1420 SERVICE REPAIR PARTS operators MANUAL wisconsin kohler - \$129.99. FOR SALE! All books came out of the shop area of a Ditch Witch ... Ditch Witch Heavy Equipment Manuals & Books for Trencher Get the best deals on Ditch Witch Heavy

Equipment Manuals & Books for Trencher when you shop the largest online selection at eBay.com. Ditch Witch 1030/1230 manual It provides safety information and operation instructions to help you use and maintain your Ditch Witch equipment. Read this manual before using your equipment. Ditch Witch 1420 trencher in Caney, KS | Item AZ9002 sold 250 hours on meter · Kohler gas engine. 14 HP · Hydrostatic transmission · 3' maximum digging depth · 4"W trench · 23 x 8.50-12 tires · Operator's manual · Serial ... Manual - Ditch Witch Nov 23, 2014 — Manual - Ditch Witch. Ditch Witch 1420 repair. One bad carb... - YouTube Singer Machine Manuals Find the Manual for your Sewing Machine, Embroidery Machine, Serger/Overlock, Quilting Machine, and More. Singer 2818 Manuals Manuals and User Guides for Singer 2818. We have 4 Singer 2818 manuals available for free PDF download: Service Manual, Manual, Instruction Book · English. 6. Support Printed manuals are no longer available. For easy access, please enter your model number to view and download your manual. Don't know your model number? Singer 2818 Instruction Manual We've got you covered! This instruction manual is the ultimate guide to unlock the full potential of your Singer 2818. No more confusion or frustration—just ... SINGER® Instruction Manuals for Sewing Machines and ... Find comprehensive instruction manuals for SINGER® range of new & old sewing machines, appliances & accessories. Get the guidance you need for seamless ... Singer Sewing Machine Manuals Singer's Sewing Skills Reference Book (28 MB); Singer's Reference Book for Sewing Skills. Information on your machine, its attachments, and how to use them. Singer 2802 2808 2818 Instruction Manuals or Service & ... Service manual and Parts / Schematics for Singer 2852, 2858, 2868. 2 PDF files: HIGHEST QUALITY CLEAR COPIES of original Singer Service / Repair manual (114 ... Over 350 Free Industrial Sewing Machine Manuals Over 350 Free Industrial Sewing Machine Manuals. Link to Singer domestic machine instruction books - FREE downloads User manual Singer SIMPLE (English - 62 pages) Manual. View the manual for the Singer SIMPLE here, for free. This manual comes under the category sewing machines and has been rated by 30 people with an ... HOW TO DOWNLOAD FREE SINGER SEWING MACHINE ...