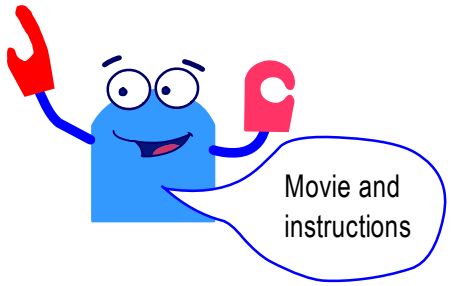
Kre8® Robot Support Pack -

Ideal for Robocup activites using used in combination with Lego® control bricks etc

Kre8® Making System

Contents



SEE WEB

This robot support pack has been put together to support competitions such as RoboCup Junior which allows any construction method to be used to take part in the dance, rescue, and football competitions. It assumes you already have a basic small robot and you want to add extra decoration etc

The Kre8 System
It has been designed to be used on its own but also so it can be used with the popular construction kits including Lego® Technik and LEGO® MINDSTORMS® for Schools. Kre8® slit rod can be inserted by hand into holes from 4.7mm to 5mm which includes the Lego® Technik holes and slots used in Knex® parts.

RoboCup

RoboCupJunior is a robotics event for schools, with very open ended rules. RoboCupJunior includes three challenges: **Soccer, Rescue, and Dance.**

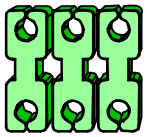
http://robofesta.open.ac.uk/planetscience/

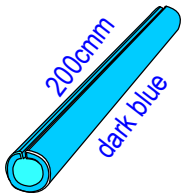
2 Kre8® Robot Support Pack - Parts List

Kre8® Making System

x6

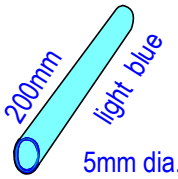
Clip connector

X5

Multiblock connector

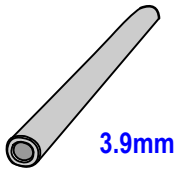
X6


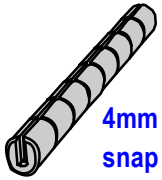
X6

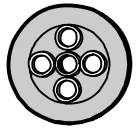

slit rod 5mm dia.

X2


5mm dia. tubes

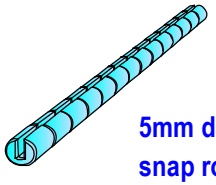
X1

3.9mm dia.

X1

4mm dia snap rod

X1

wheels 28mm

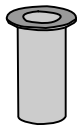
X1


X4


X1

5mm dia snap rod

X2

metal washer

X2

metal bearing for 3.9mm tube

X2

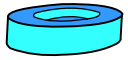
End cap

X1


X1


X2


rubber band

X4

5mm collar

X4

4mm collar

X1

5mm bendy tube 60mm long

Teachers -You can also obtain spare part packs.
Textiles or card may also be needed to cover the framework (eg old shirts for ghosts etc) and needle and thread.

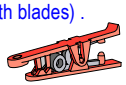
Parts List

NOTE - This kit will make a caster wheel and a framework for your robot like thise shown on next pages

Tools

Snips
Use to cut
Kre8 connector hinges, plastic sheet, light blue tubing (the serrated blades are better than smooth blades) .

Kre8 Tube Cutter
Use it to score then snap rods and tubes etc.



Abrasive cloth or paper
Use fine 'emery cloth' or other 'abrasive paper' to round and smooth the slit rod or blue tube ends to make assembly easier.

Pencil and rule
Use to mark lengths of blue tube or slit rods before cutting. Can also be used on plastic sheet before shapes are cut out.

4mm dia. Drill Just in case the pulley wheel is too tight

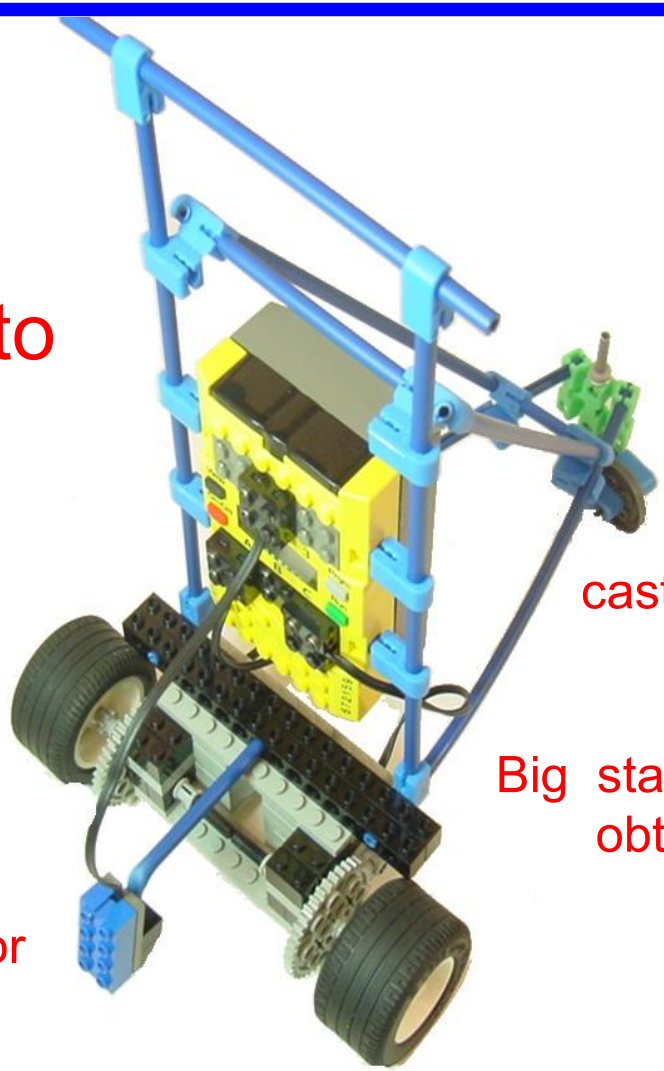
PVA glue or a stick glue - to add decoration

SAFETY WARNING

Care needs to be taken with all sharp tools -
Students under 9 years old need to be supervised by an adult.

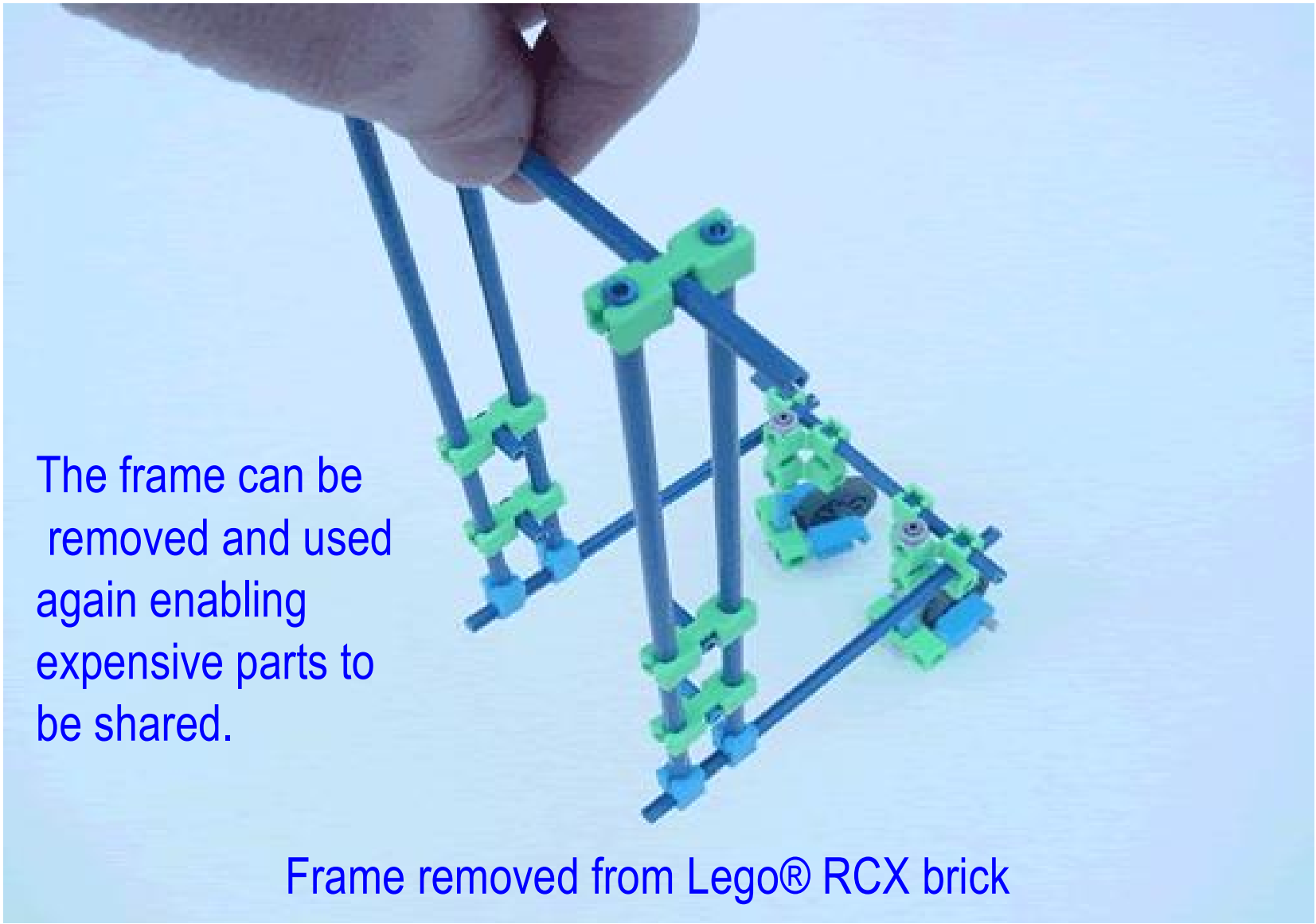
3 Ideas - Adding Kre8® to a Lego® RCX brick

Kre8 frame added to RCX brick



This frame layout has easy access to the batteries and program controls

6 Ideas - Adding Kre8® to a Lego® RCX brick



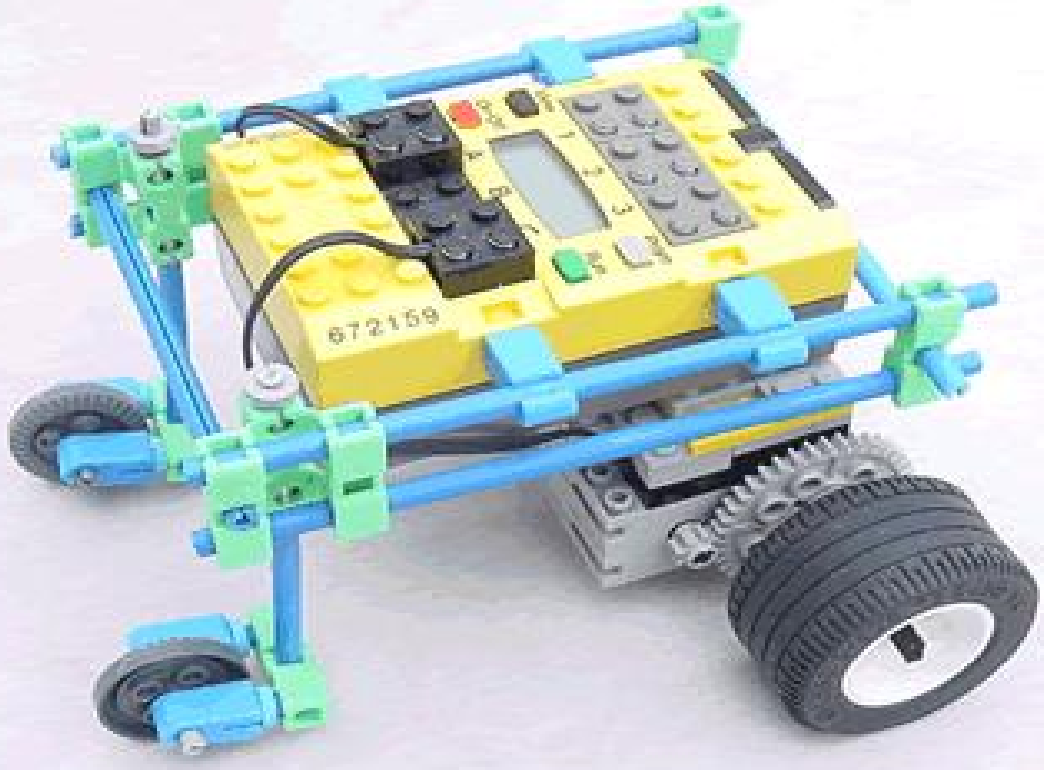
The frame can be removed and used again enabling expensive parts to be shared.

Frame removed from Lego® RCX brick

5 Ideas - Adding Kre8® to a Lego® RCX brick

TWO casters used

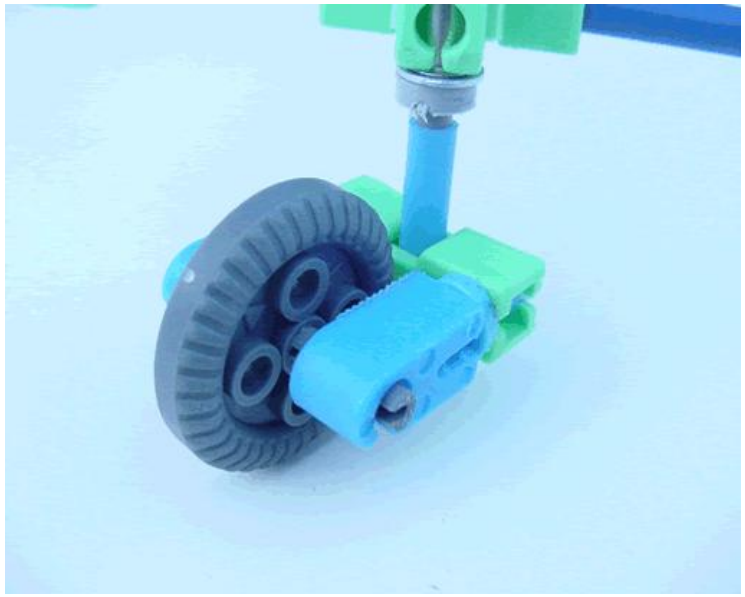
7 Ideas - Adding Kre8® to a Lego® RCX brick

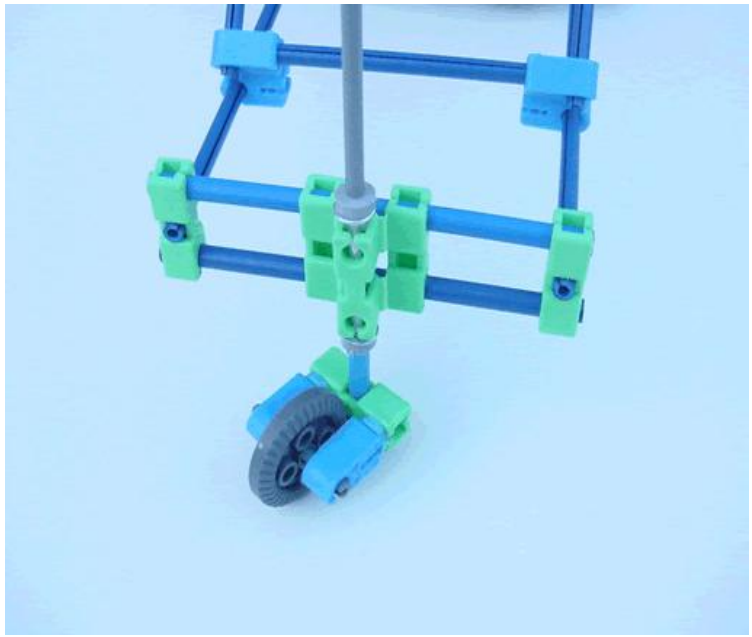


Possible layout with easy access to controls but batteries replacement is difficult as the front wheels need removing to get access

Can be made tall using 480mm rods

4 Kre8 Caster wheel detail





Note
For making details - see 'How to make a Kre8 caster' step-by- step on this website