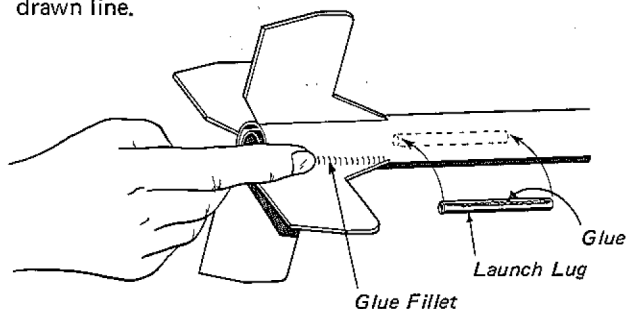
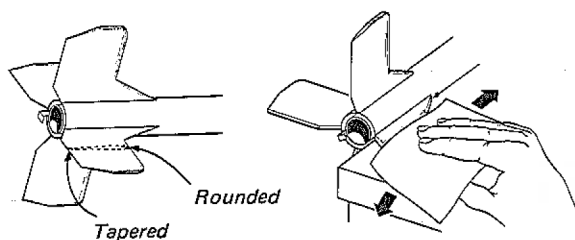




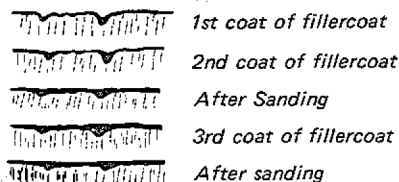
- 17** After the fin assembly has completely dried, run a bead of glue along both sides of each fin/body tube joint. Using the forefinger, smooth the glue into even "fillets". Glue the launch lug on, parallel with the body and centered between two of the fins, along its drawn line.



- 18** When the glue fillets are dry, sand the sides of the fins lightly, round the leading edges and taper the trailing edges. Lay the rocket on your work table edge to achieve this "airfoiled" shape.



- 19** Prepare balsa surface for a smooth and realistic finish. Fill the wood grain with Centuri fillercoat or sanding sealer. When dry, sand with fine sandpaper. Repeat until smooth.

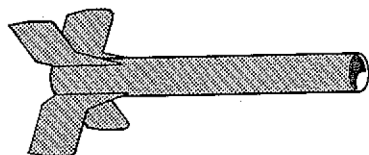


- 20** When painting plastic parts, never use dope or lacquer!

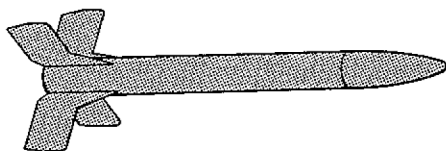
Spray painting your finished model with a fast-drying enamel will produce the best results . . . IF IT IS DONE PROPERLY!!! Most important is the number of coats of paint. DO NOT try to paint your model with one heavy coat! Instead, give it a couple of quick, light coats first and THEN a finish coat. Let each coat dry before applying the next.

- 21** There are several different ways to paint your PAY-LOADER II.

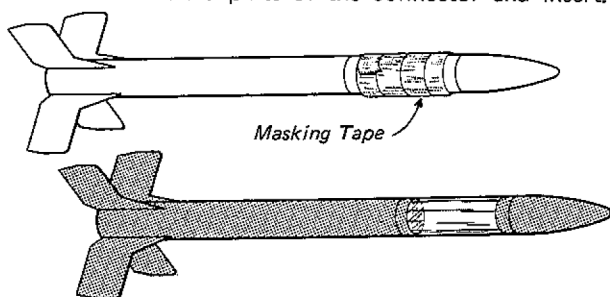
You may paint only the body, and leave the nose cone natural.



Or you may insert the nose cone directly into the body tube for painting, temporarily leaving out the payload section.

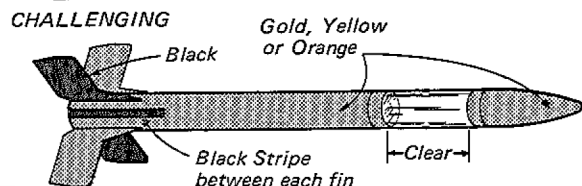
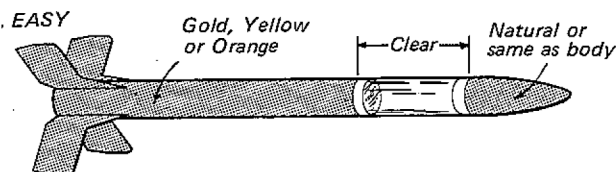


Or you may paint the rocket with all parts socketed together, but protect the clear plastic with masking tape. This is the best technique because the paint hides the visible parts of the connector and insert.

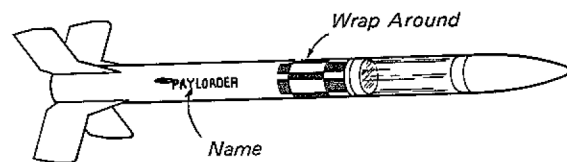


- 22** RECOMMENDED COLOR SCHEMES

These are only suggestions . . . be sure to choose colors which go well with the color of your particular nose cone and decals.

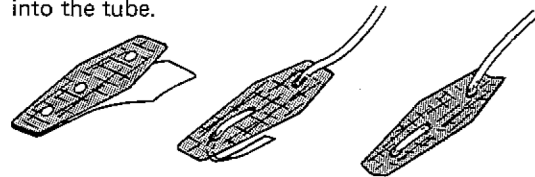


- 23** Apply the decals, one at a time, according to the instructions printed on the decal backing paper. Keep checking the warp-around as it dries, and smooth any bubbles.

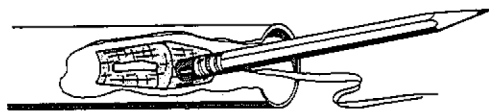


- 24** DON'T FORGET TO INSTALL THE SHOCK CORD!

Peel the backing from the shock cord fastener. Thread the other end of the elastic shock cord through the fastener as shown. Take care not to touch the adhesive backing any more than absolutely necessary. Slightly crease the fastener length wise to allow easy insertion into the tube.



- 25** Insert the fastener 1" past the top of the body tube. Press firmly against the inside wall of the tube with a finger or eraser end of a pencil. NOTE: All edges of the fastener must be firmly contacted to the tube to insure a permanent bond.



Press fastener FIRMLY into place.

ENGINES:

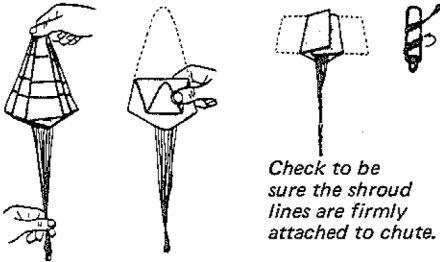
Igniters and complete engine installation instructions are included in "Engine Operating Instructions" which accompany all Centuri engines.

The PAYLOADER II can be launched with the following engines:

ENGINE	ALTITUDE	PURPOSE
A8-3	200 - 300 ft.	LOW ALTITUDE - for first flights and small launch area.
B4-4 B6-4	350 - 500 ft	MEDIUM ALTITUDE - for general flying and medium size launch areas.
B14-5	300 - 400 ft.	MEDIUM ALTITUDE - for carrying payloads of one ounce or more. (Maximum payload; 3 ounces.)
C6-5	800 - 1250 ft.	HIGH ALTITUDE - for extremely high flights and large launch areas.

FLIGHT PREPPING:

1. Prepare a recommended engine with an igniter.
2. Insert engine, securing with lock.
3. Inspect shock cord fastener for firm bond.
4. Insert Flameproof Parachute Wadding according to its directions.
5. Tuck in shock cord.
6. Roll chute neatly as shown and insert.

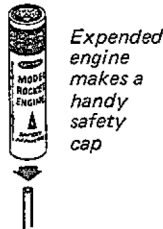


7. Socket nose cone and payload section in place.

Launch the PAYLOADER II from any standard model rocket launcher having a 1/8" diameter x 36" long steel launch rod.

Do not leave the rocket sitting in the sun for long periods as this may soften the adhesives.

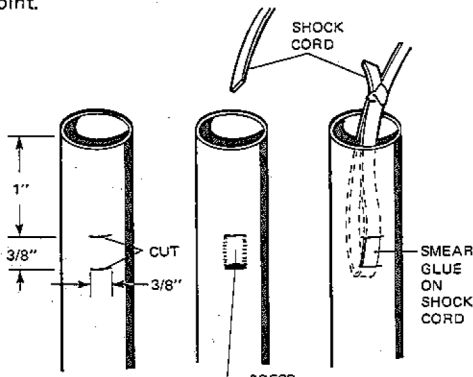
Referring to the specific instructions that accompany CENTURI launchers and firing panels, mount the rocket on the launcher and prepare for ignition. Avoid eye injury by capping the exposed tip of the launch rod when not actually launching.



SPECIAL TIP:

Shock cords and their fasteners sometimes blow out of small rockets. This can easily happen when they are not properly installed or if the rocket sits in the warm sunlight too long. If this happens to you, do not attempt to reglue the fastener in place. After a few flights the inside of the body tube will be too gritty for a good glue bond. Instead, try this simple repair technique.

Cut two slits near the top of the body tube. Press the indicated area of the tube toward and drop the shock cord down thru the top and tie in a firm knot. Press the depressed portion of the body tube back into place and smear glue over the joint.



Payloader II

CATALOG NO. KC-20

The Payloader II Carrier Rocket is designed to carry payloads such as crickets, beetles, ants, and other insects to high altitudes and return them safely by parachute. The plastic see-thru capsule permits you to observe the payload before and after flight without removing the capsule from the rocket.

The primary objective in flying a live payload is to study the effects of acceleration, pressure changes, and sudden shock on living organisms. There is little pressure change effect at relatively low altitudes achieved by model rockets. However, with the large sounding rockets used by scientific organizations, these effects would be an important object of study.

This rocket is designed to be launched only from standard remote-controlled electrical launch systems. Always use the recommended engines, and parachute wadding. Comply with all Federal, State and local laws.



MODEL ROCKETEER'S SAFETY CODE

CONSTRUCTION

My model rockets will be made of only lightweight materials such as paper, wood, plastic, and thin metallic foils, with the exception of payloads and engine holders made of wirelike material.

ENGINES

I will use only pre-loaded factory made model rocket engines in the manner recommended by the manufacturer. I will not change in any way nor attempt to reload these engines.

RECOVERY

I will always use a recovery system in my model rockets that will return them safely to the ground so that they may be flown again.

WEIGHT LIMITS

My model rocket will weigh no more than 453 grams (16 oz.) at liftoff, and the engines will contain no more than 113 (4 oz.) of propellant, as prescribed by Federal Regulations.

STABILITY

I will check the stability of my model rockets before their first flight except when launching models of already proven stability.

LAUNCHING SYSTEM

The system I use to launch my rockets will be remotely controlled and electrically operated, and will contain a switch that will return to "off" when released. I will remain at least 10 feet away from any rocket that is being launched.

LAUNCH SAFETY

I will not let anyone approach a model rocket on a launcher until I have made sure that either the safety interlock key has been removed or the battery has been disconnected from my launcher.

LAUNCH AREA

My model rockets will always be launched from a cleared area, free of any easy-to-burn materials, and I will only use non-flammable recovery wadding in my rockets.

BLAST DEFLECTOR

My launcher will have a blast deflector device to prevent the engine exhaust from hitting the ground directly.

LAUNCH ROD

To prevent accidental eye injury I will always place the launcher so the end of the rod is above eye level or cap the end of the rod with my hand when approaching it. I will never place my head or body over the launching rod. When my launcher is not in use I will always store it so that the launch rod is not in an upright position.

POWER LINES

I will never attempt to recover my rocket from a power line or other dangerous places.

LAUNCH TARGETS AND ANGLE

I will not launch rockets so their flight path will carry them against targets on the ground, and will never use an explosive warhead nor a payload that is intended to be flammable. My launching device will always be pointed within 30 degrees of vertical.

PRE-LAUNCH TEST

When conducting research activities with unproven designs or methods, I will, when possible, determine their reliability through pre-launch tests. I will conduct launchings of unproven designs in complete isolation from persons not participating in the actual launching.

FLYING CONDITIONS

I will not launch my model rocket in high winds, near buildings, power lines, tall trees, low flying aircraft or under any conditions which might be dangerous to people or property.

Payloader II

CATALOG NO. KC-20

The Payloader II Carrier Rocket is designed to carry payloads such as crickets, beetles, ants, and other insects to high altitudes and return them safely by parachute. The plastic see-thru capsule permits you to observe the payload before and after flight without removing the capsule from the rocket.

The primary objective in flying a live payload is to study the effects of acceleration, pressure changes, and sudden shock on living organisms. There is little pressure change effect at relatively low altitudes achieved by model rockets. However, with the large sounding rockets used by scientific organizations, these effects would be an important object of study.

This rocket is designed to be launched only from standard remote-controlled electrical launch systems. Always use the recommended engines, and parachute wadding. Comply with all Federal, State and local laws.



MODEL ROCKETEER'S SAFETY CODE

CONSTRUCTION

My model rockets will be made of only lightweight materials such as paper, wood, plastic, and thin metallic foils, with the exception of payloads and engine holders made of wirelike material.

ENGINES

I will use only pre-loaded factory made model rocket engines in the manner recommended by the manufacturer. I will not change in any way nor attempt to reload these engines.

RECOVERY

I will always use a recovery system in my model rockets that will return them safely to the ground so that they may be flown again.

WEIGHT LIMITS

My model rocket will weigh no more than 453 grams (16 oz.) at liftoff, and the engines will contain no more than 113 (4 oz.) of propellant, as prescribed by Federal Regulations.

STABILITY

I will check the stability of my model rockets before their first flight except when launching models of already proven stability.

LAUNCHING SYSTEM

The system I use to launch my rockets will be remotely controlled and electrically operated, and will contain a switch that will return to "off" when released. I will remain at least 10 feet away from any rocket that is being launched.

LAUNCH SAFETY

I will not let anyone approach a model rocket on a launcher until I have made sure that either the safety interlock key has been removed or the battery has been disconnected from my launcher.

LAUNCH AREA

My model rockets will always be launched from a cleared area, free of any easy-to-burn materials, and I will only use non-flammable recovery wadding in my rockets.

BLAST DEFLECTOR

My launcher will have a blast deflector device to prevent the engine exhaust from hitting the ground directly.

LAUNCH ROD

To prevent accidental eye injury I will always place the launcher so the end of the rod is above eye level or cap the end of the rod with my hand when approaching it. I will never place my head or body over the launching rod. When my launcher is not in use I will always store it so that the launch rod is not in an upright position.

POWER LINES

I will never attempt to recover my rocket from a power line or other dangerous places.

LAUNCH TARGETS AND ANGLE

I will not launch rockets so their flight path will carry them against targets on the ground, and will never use an explosive warhead nor a payload that is intended to be flammable. My launching device will always be pointed within 30 degrees of vertical.

PRE-LAUNCH TEST

When conducting research activities with unproven designs or methods, I will, when possible, determine their reliability through pre-launch tests. I will conduct launchings of unproven designs in complete isolation from persons not participating in the actual launching.

FLYING CONDITIONS

I will not launch my model rocket in high winds, near buildings, power lines, tall trees, low flying aircraft or under any conditions which might be dangerous to people or property.

ENGINES:

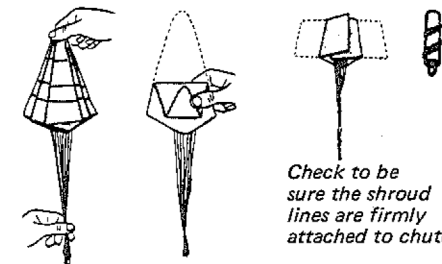
Igniters and complete engine installation instructions are included in "Engine Operating Instructions" which accompany all Centuri engines.

The PAYLOADER II can be launched with the following engines:

ENGINE	ALTITUDE	PURPOSE
A8-3	200 - 300 ft.	LOW ALTITUDE - for first flights and small launch area.
B4-4 B6-4	350 - 500 ft	MEDIUM ALTITUDE - for general flying and medium size launch areas.
B14-5	300 - 400 ft.	MEDIUM ALTITUDE - for carrying payloads of one ounce or more. (Maximum payload; 3 ounces.)
C6-5	800 - 1250 ft.	HIGH ALTITUDE - for extremely high flights and large launch areas.

FLIGHT PREPPING:

1. Prepare a recommended engine with an igniter.
2. Insert engine, securing with lock.
3. Inspect shock cord fastener for firm bond.
4. Insert Flameproof Parachute Wadding according to its directions.
5. Tuck in shock cord.
6. Roll chute neatly as shown and insert.



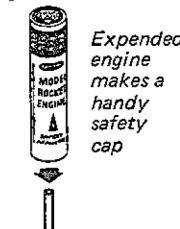
Check to be sure the shroud lines are firmly attached to chute.

7. Socket nose cone and payload section in place.

Launch the PAYLOADER II from any standard model rocket launcher having a 1/8" diameter x 36" long launch rod.

Do not leave the rocket sitting in the sun for long periods as this may soften the adhesives.

Referring to the specific instructions that accompany CENTURI launchers and firing panels, mount the rocket on the launcher and prepare for ignition. Avoid eye injury by capping the exposed tip of the launch rod when not actually launching.

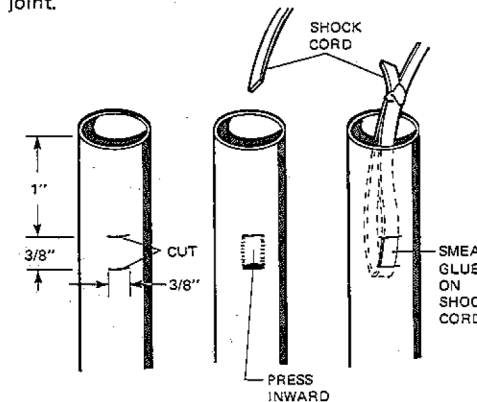


Expended engine makes a handy safety cap

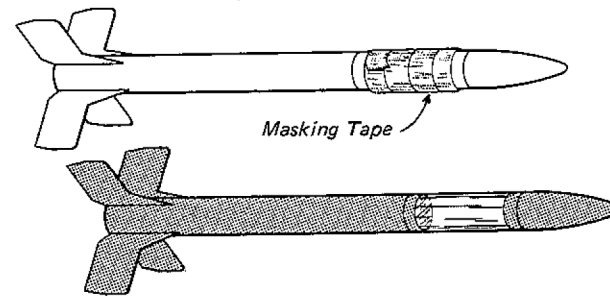
SPECIAL TIP:

Shock cords and their fasteners sometimes blow out of small rockets. This can easily happen when they are not properly installed or if the rocket sits in the warm sunlight too long. If this happens to you, do not attempt to reglue the fastener in place. After a few flights the inside of the body tube will be too gritty for a good glue bond. Instead, try this simple repair technique.

Cut two slits near the top of the body tube. Press the indicated area of the tube toward and drop the shock cord thru the top and tie in a firm knot. Press the depressed portion of the body tube back into place and smear glue over the joint.

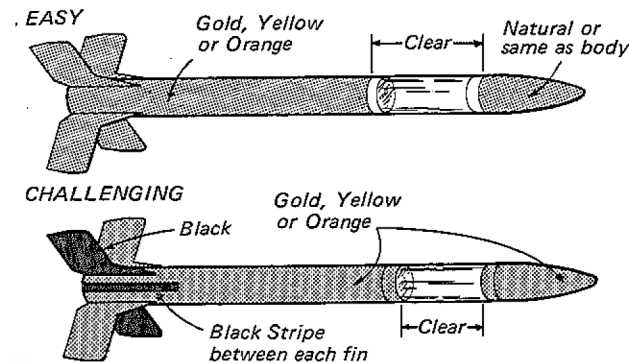


Or you may paint the rocket with all parts socketed together, but protect the clear plastic with masking tape. This is the best technique because the paint hides the visible parts of the connector and insert.

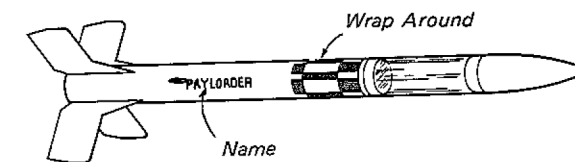


RECOMMENDED COLOR SCHEMES

These are only suggestions... be sure to choose colors which go well with the color of your particular nose cone and decals.

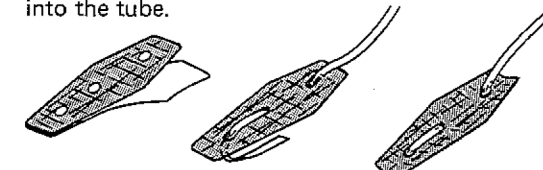


23. Apply the decals, one at a time, according to the instructions printed on the decal backing paper. Keep checking the warp-around as it dries, and smooth any bubbles.



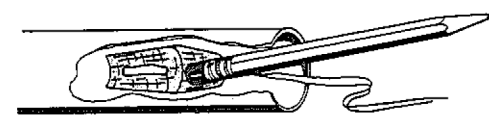
DON'T FORGET TO INSTALL THE SHOCK CORD!

Peel the backing from the shock cord fastener. Thread the other end of the elastic shock cord through the fastener as shown. Take care not to touch the adhesive backing any more than absolutely necessary. Slightly crease the fastener length wise to allow easy insertion into the tube.



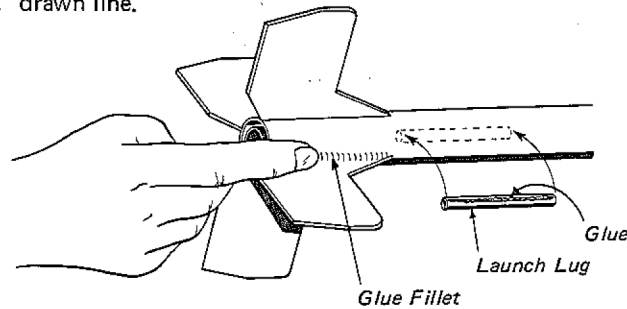
Press end of shock cord against adhesive back of fastener.

25. Insert the fastener 1" past the top of the body tube. Press firmly against the inside wall of the tube with a finger or eraser end of a pencil. NOTE: All edges of the fastener must be firmly contacted to the tube to insure a permanent bond.

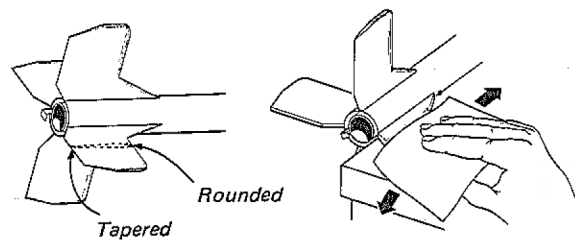


Press fastener FIRMLY into place.

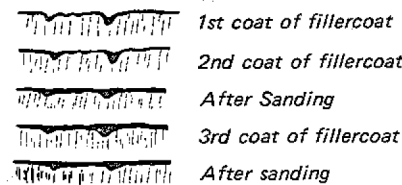
17. After the fin assembly has completely dried, run a bead of glue along both sides of each fin/body tube joint. Using the forefinger, smooth the glue into even "fillets". Glue the launch lug on, parallel with the body and centered between two of the fins, along its drawn line.



18. When the glue fillets are dry, sand the sides of the fins lightly, round the leading edges and taper the trailing edges. Lay the rocket on your work table edge to achieve this "airfoiled" shape.



19. Prepare balsa surface for a smooth and realistic finish. Fill the wood grain with Centuri fillercoat or sanding sealer. When dry, sand with fine sandpaper. Repeat until smooth.



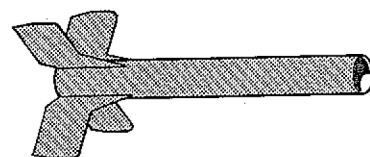
1st coat of fillercoat
2nd coat of fillercoat
After Sanding
3rd coat of fillercoat
After sanding

20. When painting plastic parts, never use dope or lacquer!

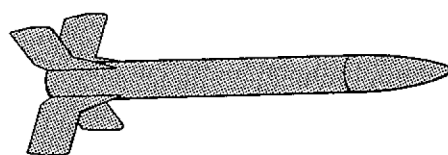
Spray painting your finished model with a fast-drying enamel will produce the best results... IF IT IS DONE PROPERLY!!! Most important is the number of coats of paint. DO NOT try to paint your model with one heavy coat! Instead, give it a couple of quick, light coats first and THEN a finish coat. Let each coat dry before applying the next.

21. There are several different ways to paint your PAYLOADER II.

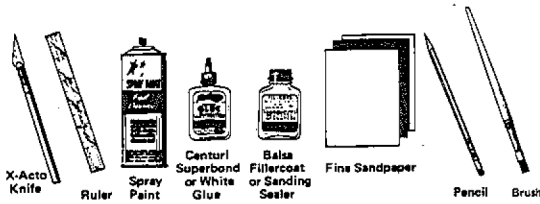
You may paint only the body, and leave the nose cone natural.



Or you may insert the nose cone directly into the body tube for painting, temporarily leaving out the payload section.

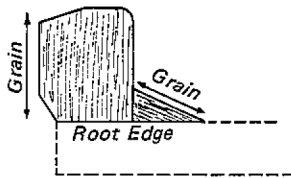
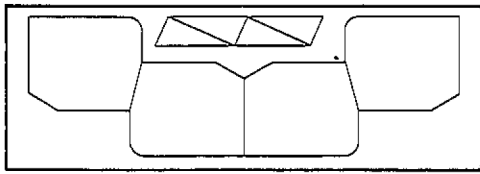


TOOLS: In addition to the parts supplied, you will need the following standard model rocket materials to build and finish this kit. **DO NOT** use model airplane glue for building flying model rockets.

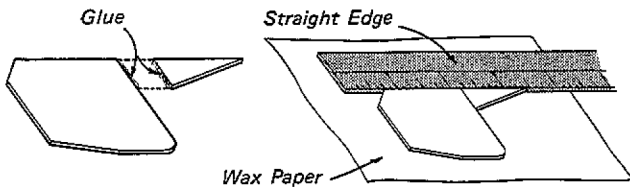


ASSEMBLY INSTRUCTIONS

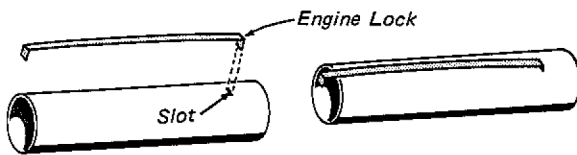
1 Remove the pre-cut fin parts from their sheet carefully. Use a modeling knife, if necessary, to avoid tearing the balsa. Please notice how the parts fit together, and which edge is the root edge (part that glues to the body tube).



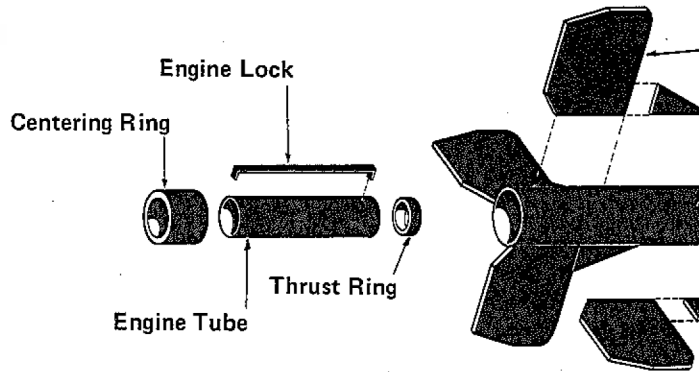
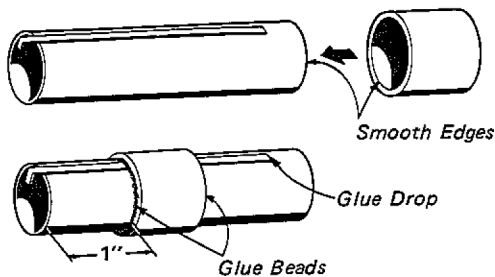
2 Glue each main fin and leading section together as shown, preferably on wax paper to avoid the parts sticking to your work table. Line the root edges up against a straightedge, such as a ruler. Allow to dry.



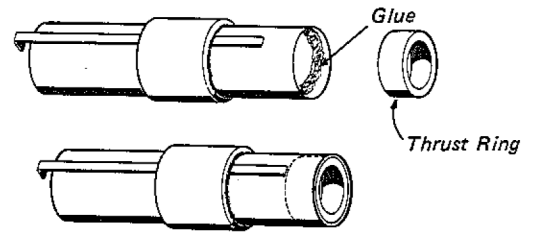
3 Bend the engine lock gently into a slightly curved shape. Now insert one end of the lock into the engine tube slot. This assembly is called an engine mount.



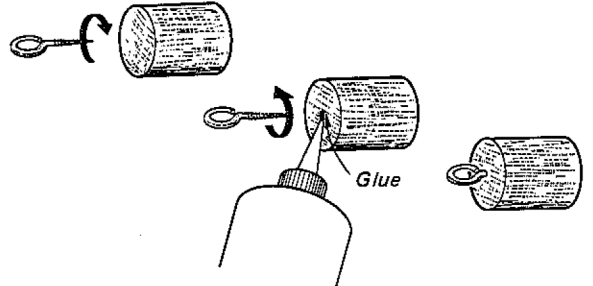
4 Slide the centering ring over the engine tube as shown. NOTE: Because these parts are precision-fit, smooth any rough edges before joining. Apply glue beads (front and back) as shown, and on the engine lock in its slit.



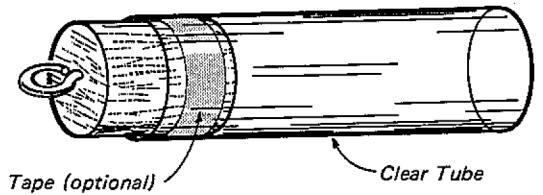
5 Run a bead of glue inside the front end of the engine tube. Insert the thrust ring, flush with the tube's end. Set aside to dry.



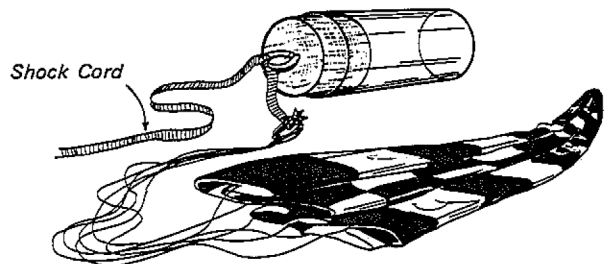
6 Screw the metal screw eye into the center of the balsa connector. Unscrew it and squirt a drop of glue into the hole. Rescrew the eye in place.

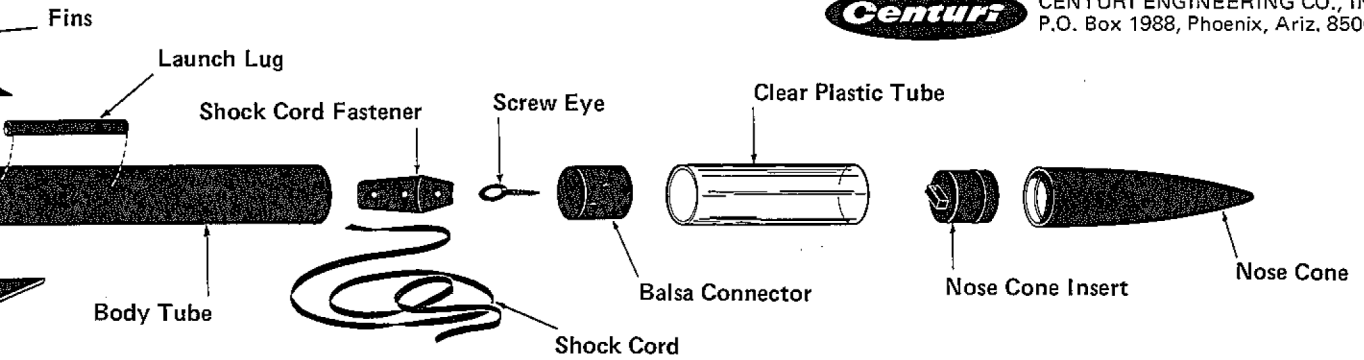


7 Insert the connector about halfway into the clear plastic payload tube. It should be a tight fit . . . if it is loose, build up it's size slightly by carefully wrapping tape around it.

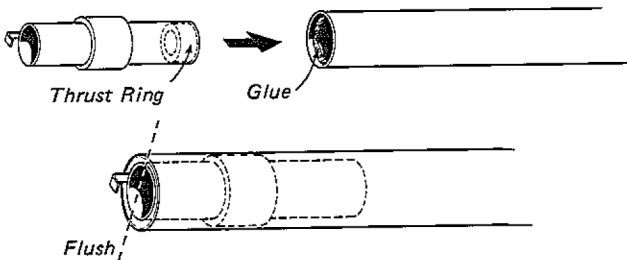


8 Tie one end of the shock cord thru the screw eye . . . use a double knot. Tie the assembled parachute shroud lines onto the free end of shock cord. Do not try to attach the other end of the shock cord to the body yet . . . leaving it unattached for now will simplify the painting steps later.

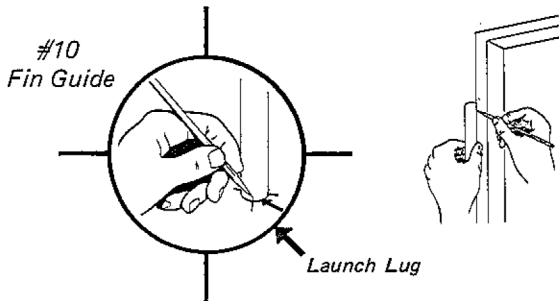




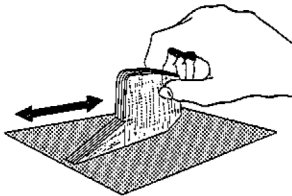
- 9** Run a generous glue bead around the inside of one end of the mainbody tube. Insert the engine mount (thrust ring forward) until the two tubes are "flush" (even with each other).



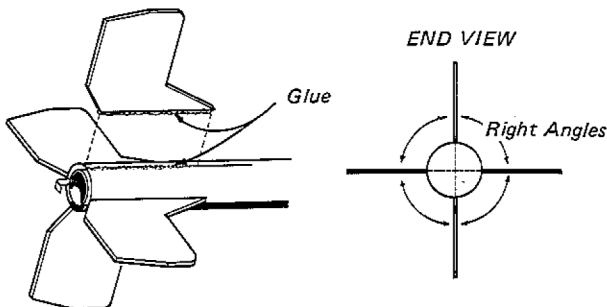
- 10** Stand the body tube on the fin guide to mark fin and launch lug locations. Find a convenient channel or groove, such as a door jamb, partially open drawer, or molding. Extend the marks the full length of the tube.



- 11** Your fins should be dry enough to handle by now. Hold all four fins together, and rub across fine sandpaper (laid on a flat surface) to insure straight root edges.

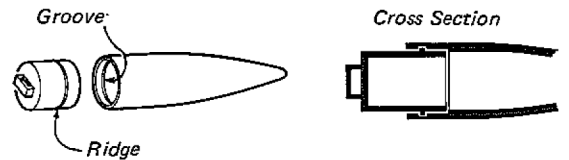


- 12** Apply a bead of glue to one fin's root edge and press onto the body tube along a drawn line. Remove, allow it to become tacky. Add fresh glue to fin, and reposition. Repeat with the other fins. Allow assembly to dry standing upside down.



- 13** This kit contains a plastic nose cone for the forward end of your rocket. While a few other kits still use balsa cones, plastic is now the preferred choice of many rocketeers. It requires no sanding, sealing or painting to have a smooth attractive finish. Plastic is also more durable than balsa . . . it does not dent or "crunch" as easily.

The Snap-Type nose cone assembles by pushing the insert into the cone until the ridge snaps into the groove.

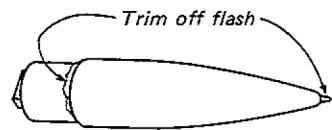


- 14** IMPORTANT: The snap-type cones should be assembled with care and good judgement, to avoid breaking the cone . . . Your insert may seem to be too tight a fit as you try to snap it in place. If so, play it safe by gluing the insert in place with plastic cement. (The ridge or ledge of the insert butts up against the base of the cone.)

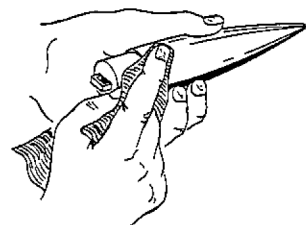
OPTIONAL
GLUING
TECHNIQUE



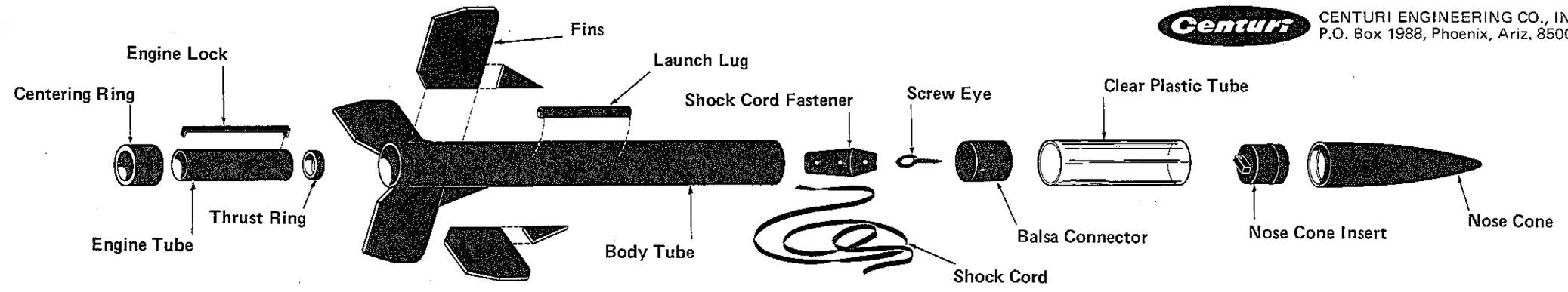
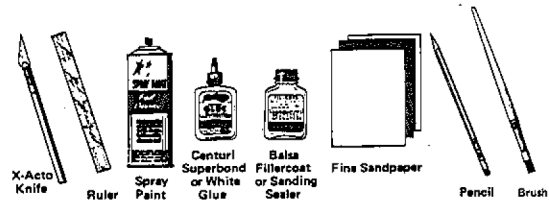
- 15** For best appearance, trim away any plastic "flash" that may be on your cone.



- 16** Rub the cone briskly with a soft cloth to remove manufacturing oils, and produce a shiny finish.

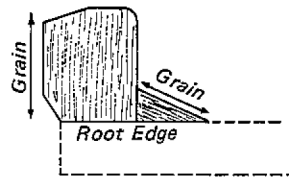
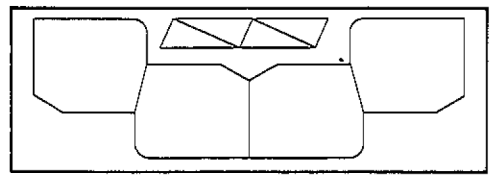


TOOLS: In addition to the parts supplied, you will need the following standard model rocket materials to build and finish this kit. DO NOT use model airplane glue for building flying model rockets.

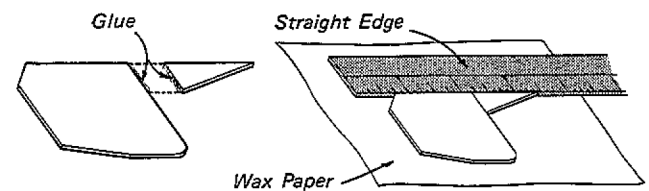


ASSEMBLY INSTRUCTIONS

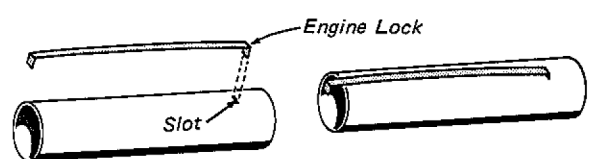
1 Remove the pre-cut fin parts from their sheet carefully. Use a modeling knife, if necessary, to avoid tearing the balsa. Please notice how the parts fit together, and which edge is the root edge (part that glues to the body tube).



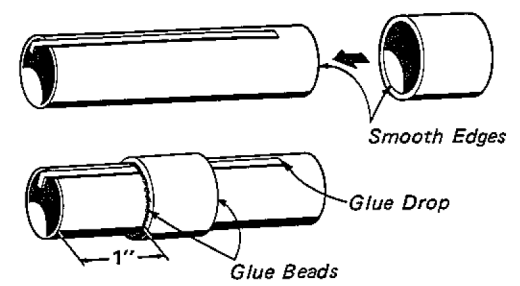
2 Glue each main fin and leading section together as shown, preferably on wax paper to avoid the parts sticking to your work table. Line the root edges up against a straightedge, such as a ruler. Allow to dry.



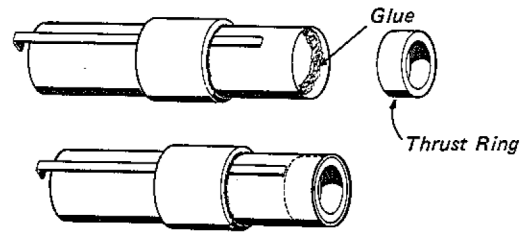
3 Bend the engine lock gently into a slightly curved shape. Now insert one end of the lock into the engine tube slot. This assembly is called an engine mount.



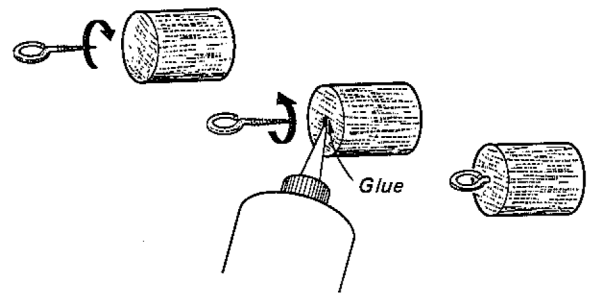
4 Slide the centering ring over the engine tube as shown. NOTE: Because these parts are precision-fit, smooth any rough edges before joining. Apply glue beads (front and back) as shown, and on the engine lock in its slit.



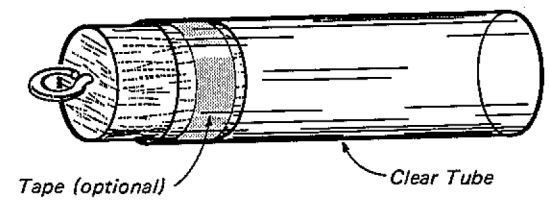
5 Run a bead of glue inside the front end of the engine tube. Insert the thrust ring, flush with the tube's end. Set aside to dry.



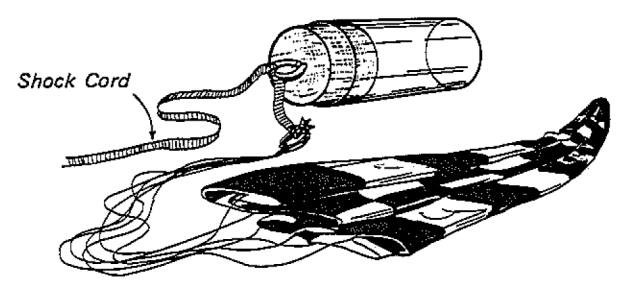
6 Screw the metal screw eye into the center of the balsa connector. Unscrew it and squirt a drop of glue into the hole. Rescrew the eye in place.



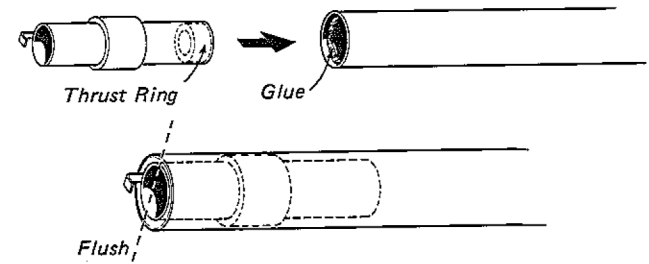
7 Insert the connector about halfway into the clear plastic payload tube. It should be a tight fit . . . if it is loose, build up it's size slightly by carefully wrapping tape around it.



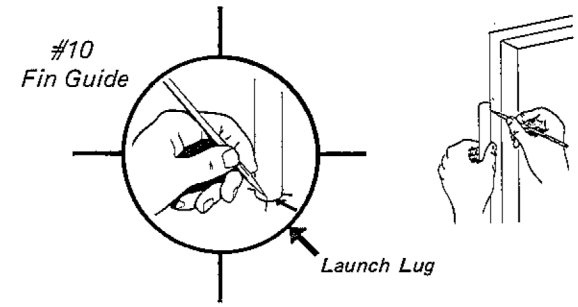
8 Tie one end of the shock cord thru the screw eye . . . use a double knot. Tie the assembled parachute shroud lines onto the free end of shock cord. Do not try to attach the other end of the shock cord to the body yet . . . leaving it unattached for now will simplify the painting steps later.



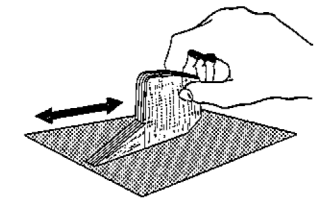
9 Run a generous glue bead around the inside of one end of the mainbody tube. Insert the engine mount (thrust ring forward) until the two tubes are "flush" (even with each other).



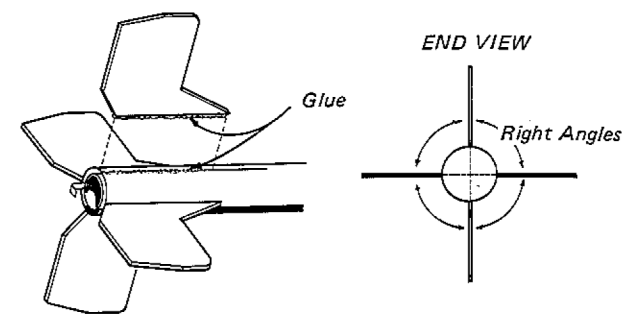
10 Stand the body tube on the fin guide to mark fin and launch lug locations. Find a convenient channel or groove, such as a door jamb, partially open drawer, or molding. Extend the marks the full length of the tube.



11 Your fins should be dry enough to handle by now. Hold all four fins together, and rub across fine sandpaper (laid on a flat surface) to insure straight root edges.

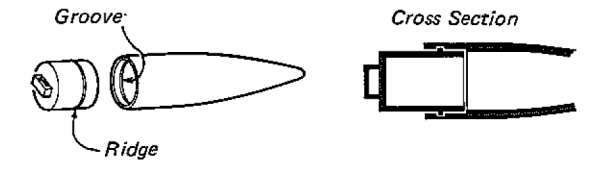


12 Apply a bead of glue to one fin's root edge and press onto the body tube along a drawn line. Remove, allow it to become tacky. Add fresh glue to fin, and reposition. Repeat with the other fins. Allow assembly to dry standing upside down.



13 This kit contains a plastic nose cone for the forward end of your rocket. While a few other kits still use balsa cones, plastic is now the preferred choice of many rocketeers. It requires no sanding, sealing or painting to have a smooth attractive finish. Plastic is also more durable than balsa . . . it does not dent or "crunch" as easily.

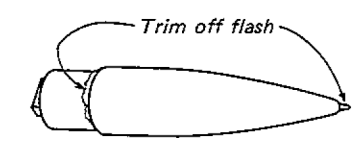
The Snap-Type nose cone assembles by pushing the insert into the cone until the ridge snaps into the groove.



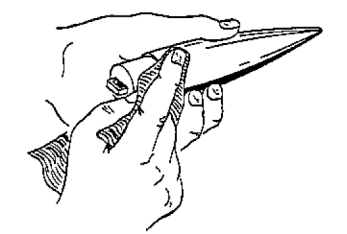
14 IMPORTANT: The snap-type cones should be assembled with care and good judgement, to avoid breaking the cone . . . Your insert may seem to be too tight a fit as you try to snap it in place. If so, play it safe by gluing the insert in place with plastic cement. (The ridge or ledge of the insert butts up against the base of the cone.)

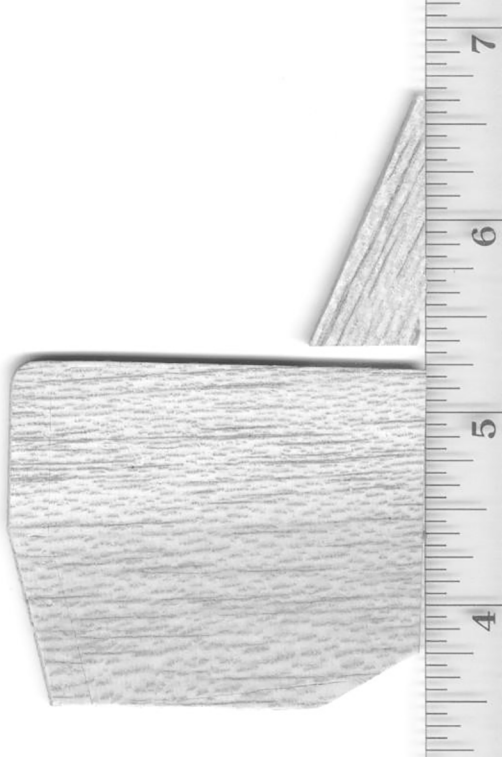


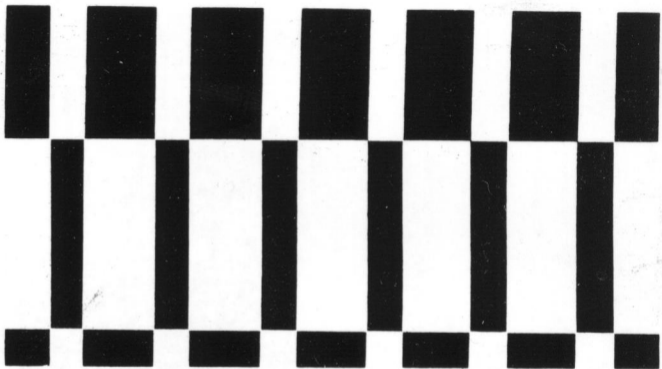
15 For best appearance, trim away any plastic "flash" that may be on your cone.



16 Rub the cone briskly with a soft cloth to remove manufacturing oils, and produce a shiny finish.







Centuri

PAYLOADER

M-345

Payloader II

CARRIER ROCKET

TELEMETRY
SCORER KIT

42,000 PSI ALUMINUM
PERFORATED CARTRIDGE

ONE 2.00 LB. OF AMMONIUM

PER CARTRIDGE



\$250

Complete Kit
From the Manufacturer

Specifications

Motor Diameter 1.75"
Length 11.5"
Net Weight 1.2 lbs.

Recommended

Motor 800
Motor 800
Motor 800

4-100

Contour

FLYING MODEL ROCKET KIT

For more information, contact your local hobby store.



Payloader II

CATALOG NO. KC-20

ASSEMBLY INSTRUCTIONS

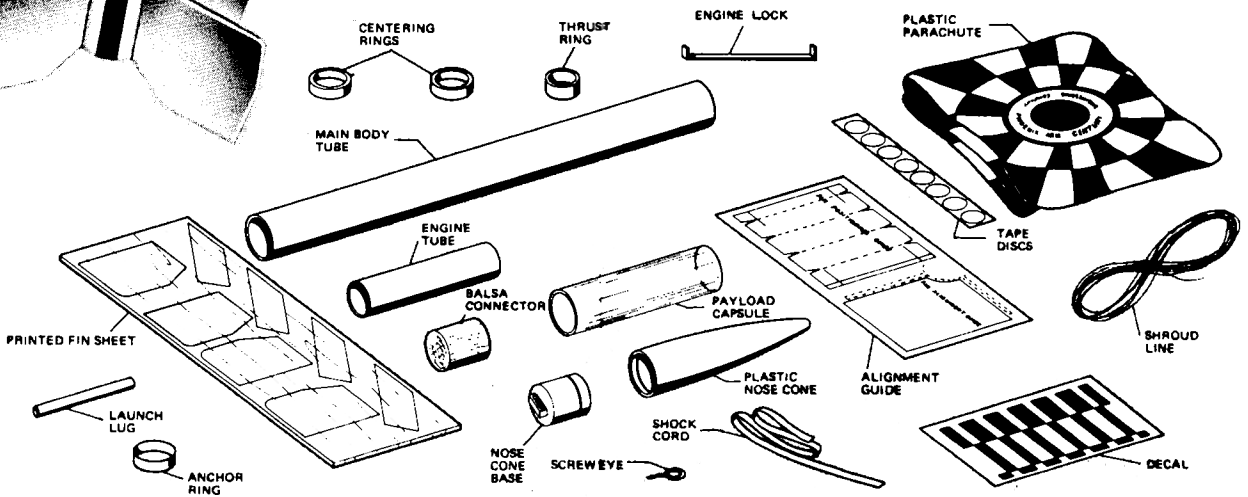
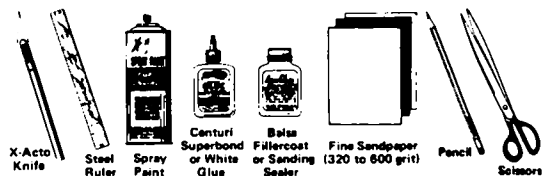
FOR BEST RESULTS . . . FOLLOW DIRECTIONS CAREFULLY!



The Payloader II Carrier Rocket is designed to carry your payloads such as crickets, beetles, ants, and other insects to high altitudes and return them safely by parachute. The plastic see-thru capsule permits you to observe the payload before and after flight without removing the capsule from the rocket.

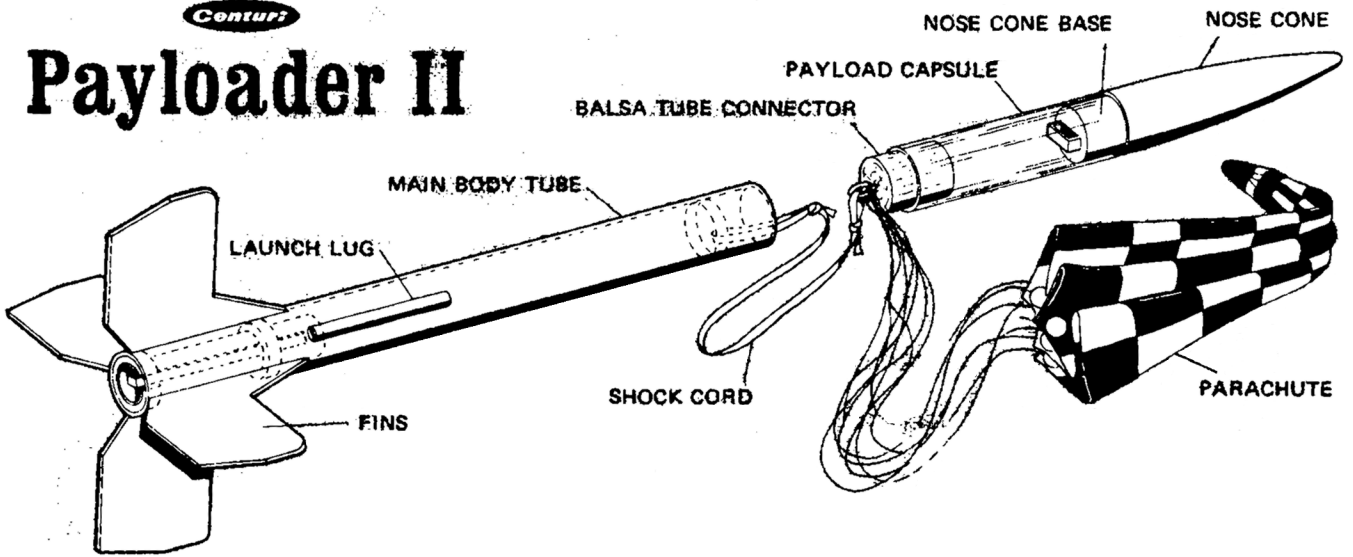
The primary objective in flying a live payload is to study the effects of acceleration, radiation, pressure changes, and sudden shock on living organisms. There is little radiation or pressure change effect at relatively low altitudes achieved by model rockets. However, with the large sounding rockets used by scientific organizations, these effects would be an important object of study.

TOOLS – In addition to the parts supplied, you will need the following materials to assemble and finish this kit. **DO NOT** use model airplane glue for building flying model rockets.



NOTE: Additional items required to fly the Payloader are: engines, launching platform, chute wadding, firing panel, battery.

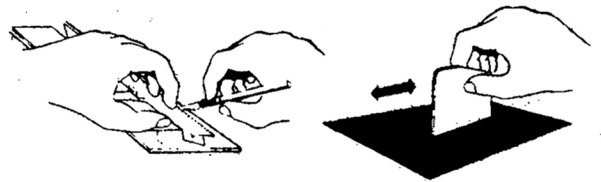
Payloader II



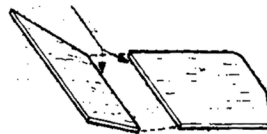
ASSEMBLY INSTRUCTIONS

FIN ASSEMBLY

1 Carefully cut out the fins with a sharp knife. Use a metal ruler for a cutting guide. Square up the fin edges by running over a piece of fine sandpaper. Run a bead of cement along the mating edges of fin parts A & B. Allow cement to set for a minute, then press the parts together. Wipe away any excess cement. After all four fins have been completed and the cement has thoroughly dried, round all fin edges except the root edges (which glue to body). Paint the fins with balsa filler coat, allow to dry, then sand lightly with fine sandpaper. Repeat the painting and sanding process until the fins are smooth and all grain line has been filled.



CEMENT



1

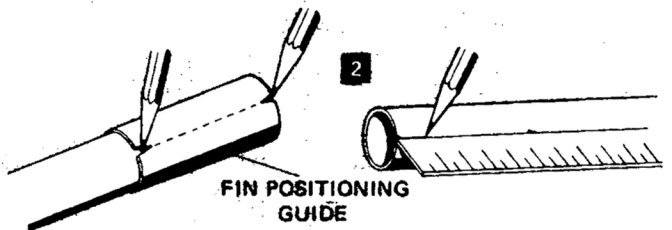


SQUARE THIS EDGE

ROUND THESE EDGES

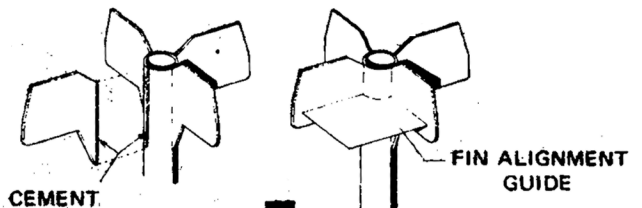
ROUND THESE EDGES

2 Wrap the fin positioning guide around the body tube and mark the fin locations. Using a straight edge, draw lines along the body connecting the marks.



FIN POSITIONING GUIDE

3 Apply cement to the fin locations on the body tube to the root edges of the fins. Press the fins onto the tube making sure they are parallel with the long axis of the body. Check vertical fin alignment with the fin alignment guide and set the completed assembly aside to dry.

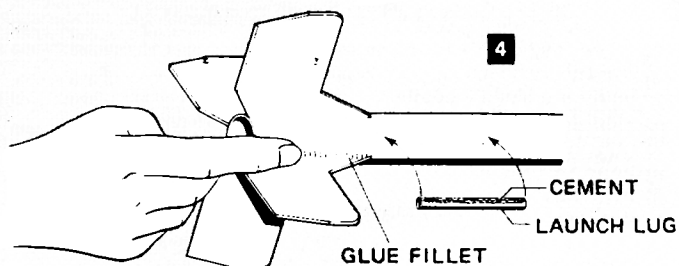


CEMENT

FIN ALIGNMENT GUIDE

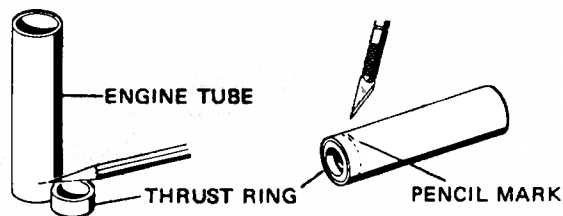
3

- 4** After the fin assembly has completely dried, run a bead of cement along both sides of each fin-body tube joint. Using the forefinger, smooth the cement into even fillets. Cement the launch lug onto the body. Make sure it is parallel with the body and centered laterally between two of the fins.

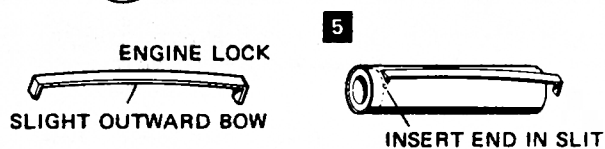


ENGINE TUBE ASSEMBLY

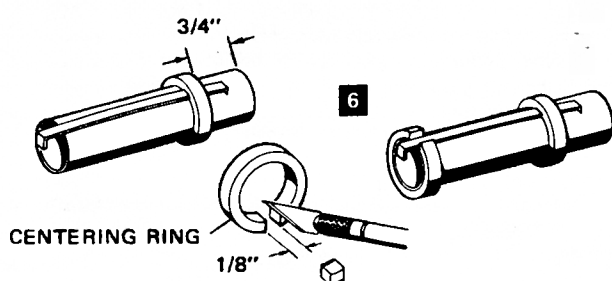
- 5** Place the thrust ring against the engine tube, flush with one end. Mark the tube as shown. Cement the thrust ring into the engine tube (ends flush). Make a short slit in the tube on the pencil mark. Bend the engine lock very slightly so it forms a light bow in the direction indicated. Insert one end of the engine lock into the slit in the tube.



- 6** Run a bead of cement around the engine tube 3/4" from the top (thrust ring) end. Slip one centering ring over the end of the tube and slide down into the cement. This centering ring will hold the engine lock firmly in place and will provide the spring action necessary to release the expended engine. Cut a 1/8" segment from the second centering ring and cement in place flush with the bottom of the tube. Be sure the engine lock is centered in the slot cut in the ring.

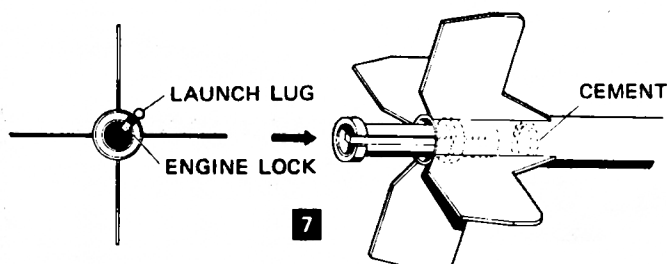


- 7** Run a bead of cement around the inside of the body tube at a depth of approx. 1 1/2". Slip the engine mount into the tube and push forward until the rear of the engine tube is flush with the bottom of the body tube. Make sure the engine lock is equidistant between 2 fins (this facilitates engine removal). Smooth a film of cement over the bottom of the engine mount-body tube joint.



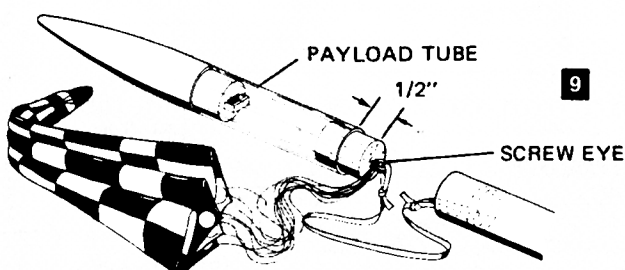
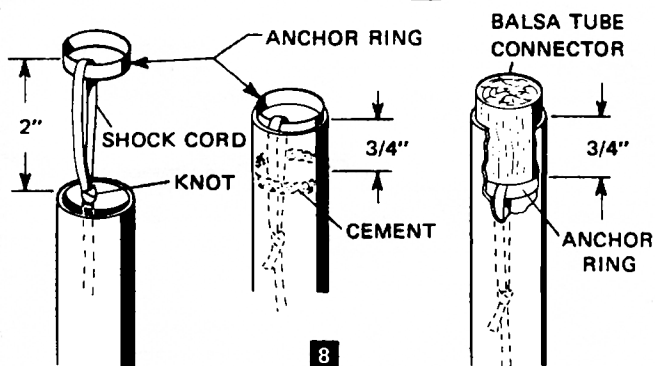
SHOCK CORD AND PARACHUTE ASSEMBLY

- 8** Tie one end of the shock cord around the anchor ring in a loose loop. Run a bead of cement around the inside of the body tube at a depth of about 1/2". Spread the cement out with the finger. Drop the end of the shock cord down into the tube and insert the anchor ring. Using the plastic nose cone base, push the anchor ring down into the tube, embedding it in the cement. Remove the nose cone base immediately.



- 9** NOTE: If you wish to paint your model (and you should), defer this step until after the model has been painted (see next page). If you are going to paint the nose cone use only paints recommended for plastics.

Press the base into the nose cone, engaging the snap ring in the groove in the cone. Socket the nose cone into the payload tube. Press the balsa tube coupler into the opposite end of the payload tube. If necessary, lightly sand the sides of the projecting portion of the balsa tube coupler. It should fit snugly, but not tightly into the main body tube. Thread the screw eye into the base of the connector. Remove, squirt glue into the hole and rethread the screw eye for a permanent mount. Tie the free end of the shock cord to the screw eye. Assemble the parachute according to directions printed on the plastic material. Tie the ends of the shroud line to the screw eye. This completes the assembly.



FINISHING THE PAYLOADER II

10 Model rockets are easiest to see at high altitudes if they are painted in bright colors. Black is also often used since it presents a dark silhouette against the sky. Fluorescent paints are highly visible and add an interesting touch to most models.

Spray painting your finished model with a fast-drying enamel will produce the best results. . . IF IT IS DONE PROPERLY!!! Most important is the number of coats of paint. DO NOT try to paint your model with one heavy coat! Instead, give it a couple of quick, light coats first, and THEN a finish coat. Let each coat dry before applying the next. . . gently sanding the fins between coats with very fine sandpaper (400 to 600 grit). DO NOT SAND THE TUBE!!

Stand the rocket in a vertical position on a rod or dowel inserted into the engine tube. Wipe the rocket free of dust and dirt. Start spraying at one end of the rocket (NOT in the middle!). Moving the can up and down with quick, even strokes, passing beyond each end so that when the direction of motion is changed the spray doesn't get too heavy on one spot and cause a run. Hold the can vertical and about 12" away from the model, rotating the rocket slightly after each pass. Be sure to shake the can vigorously before starting to spray.

The finish coat should be applied a little heavier (slower strokes) and have a "wet" look when you're finished painting. Fluorescent paints are not glossy when dry, but can be made to "shine" by rubbing gently with # 600 wet & dry sand paper and spraying with a "clear" coating. If your paint pattern includes a separate color on the nose cone or fins, masking of selected parts will be necessary.

Decals are the easiest and fastest way to "dress up" your model rocket. The decal included with this kit is especially designed for this rocket but also available are many variations shown in the current Centuri catalog.

Dip the decal into water for a few seconds. Slide the decal from the backing paper onto the model rocket in its approximate position. Slide it into its proper position and then rub gently with a wet fingertip to remove any air bubbles.

LAUNCHING THE PAYLOADER II

11 The Payloader may be launched with any of the following engines:

B8-3	B14-5
B6-4	C6-5

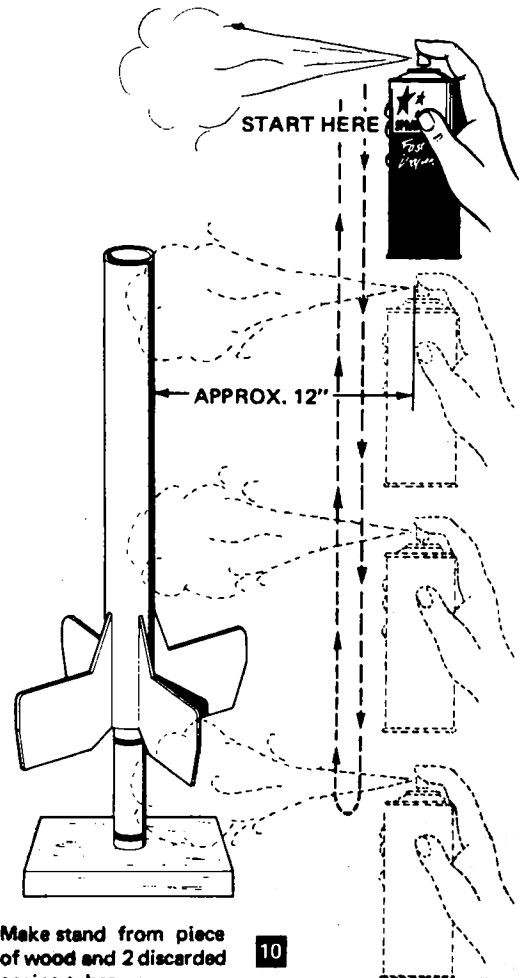
Prepare the Payloader for launching according to the illustrations at right. Note: Complete igniter and engine installation instructions are included in "Engine Operating Instructions", which accompany all Centuri engines.

Referring to the specific instructions which accompany Centuri launchers and firing panels, mount the rocket on the launcher and prepare for ignition.

REMEMBER: Safety is the key word and the following safety checks should be adhered to explicitly:

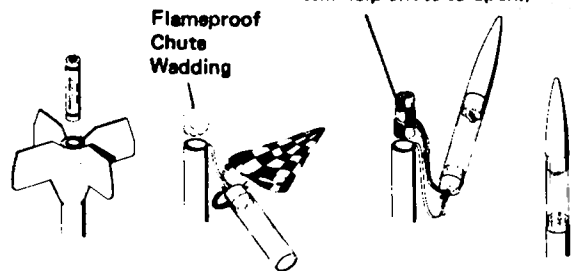
1. Launch only in an open area, well away from main streets, power lines, populated area, and main airline paths.
2. Be sure the firing panel is disarmed before hooking up the engine.
3. Check for low flying aircraft before launching.
4. Give a short countdown to alert spectators.
5. Always keep in mind that a model rocket is a scientific instrument, not a toy.

For more information concerning Centuri Model Rocketry Products, see your local hobby dealer. If there is no dealer in your area, write direct to Centuri Engineering Company, Box 1988, Phoenix, Arizona 85001.

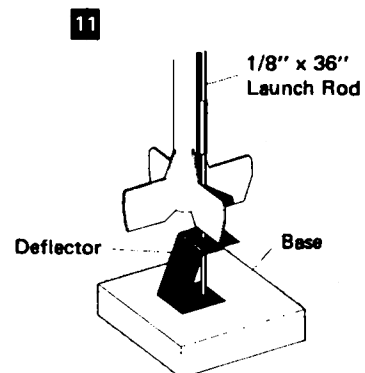


Make stand from piece of wood and 2 discarded engine tubes. **10**

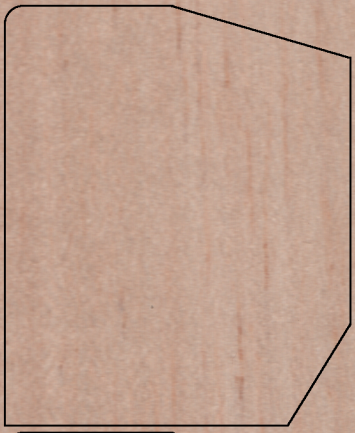
Folded Parachute (See chute instructions. Chute powder will help chute to open.)



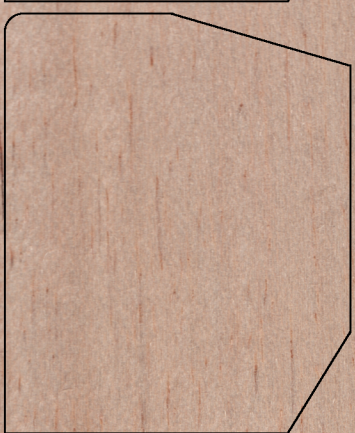
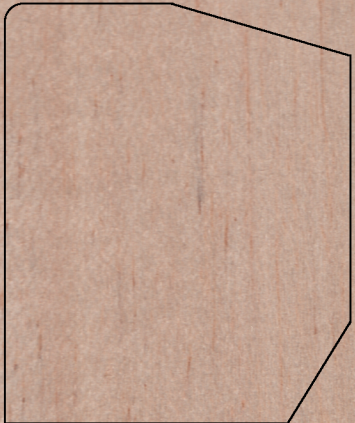
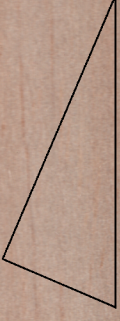
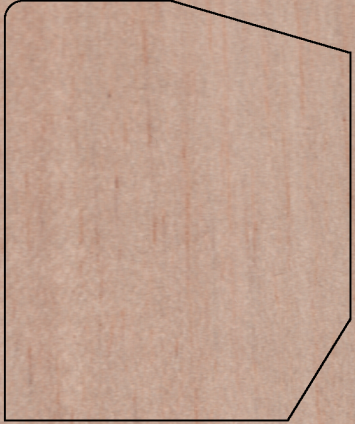
1. INSERT ENGINE
2. INSERT WADDING
3. INSERT PARACHUTE
4. ASSEMBLE NOSE CONE

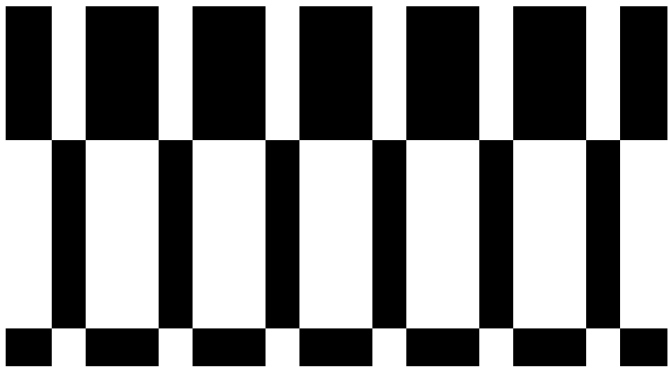


11

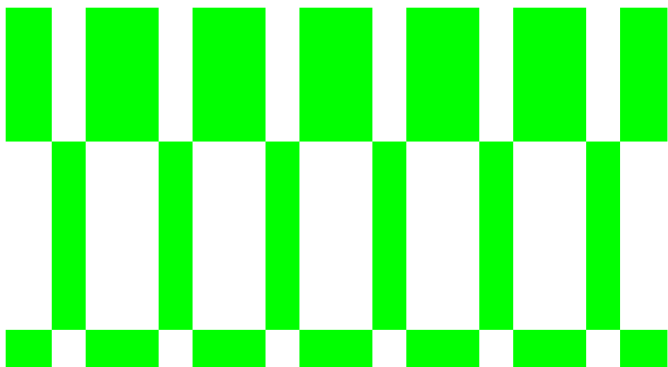
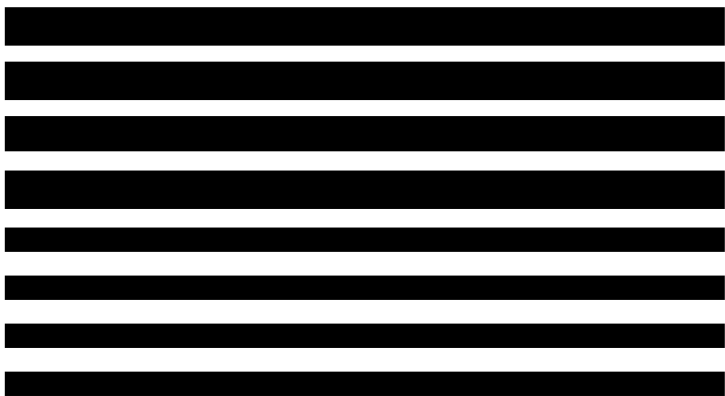


3/32"

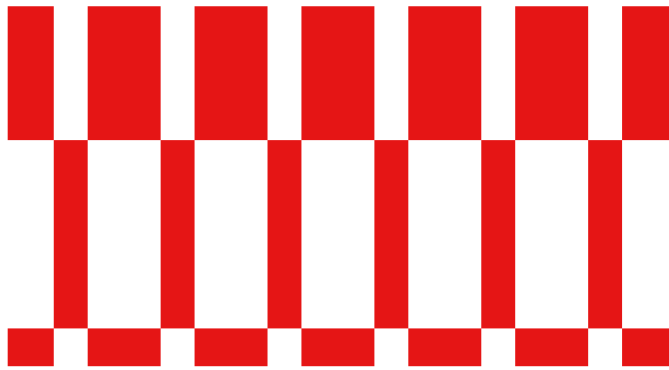
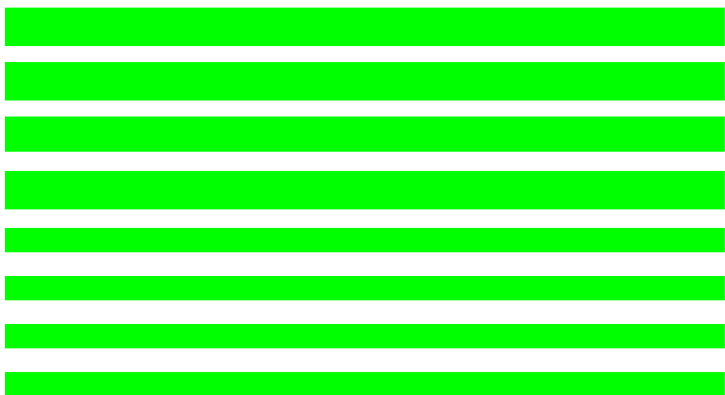




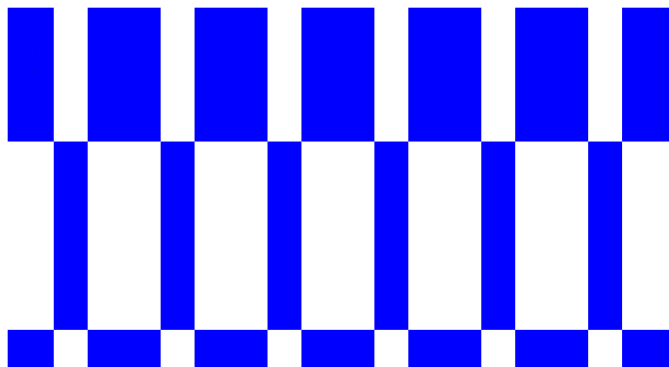
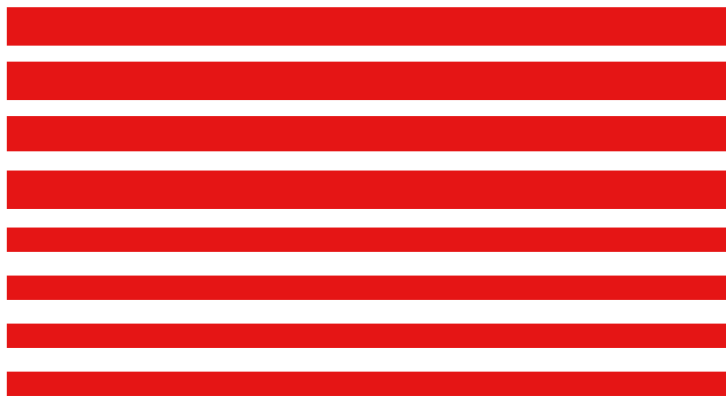
Centuri PAYLOADER II



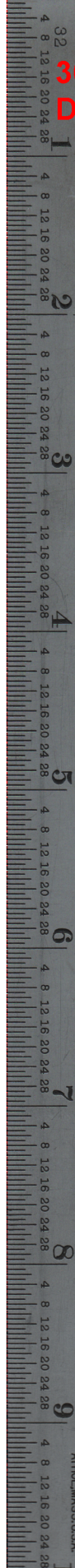
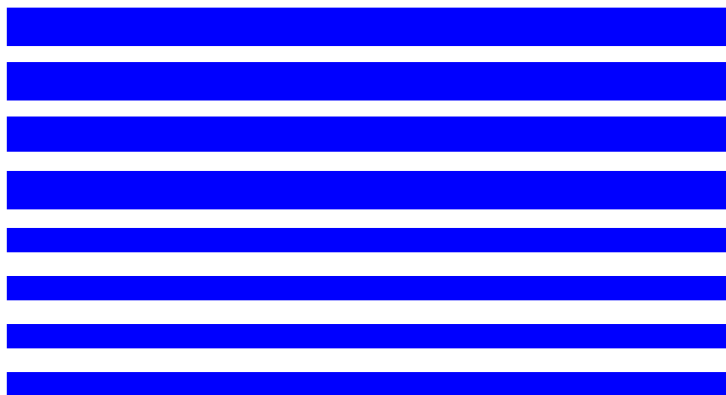
Centuri PAYLOADER II



Centuri PAYLOADER II



Centuri PAYLOADER II



Payloader II

Main Body Tube ST-10 = 10.5"

Payload Section CPT-10 = 2.5"

Nose Cone & Base PNC-103 = 4.1"

Centering Rings CR-10

Thrust Ring TR-7

Engine Lock EL-1

Engine Tube ST-7 2.75"

Balsa Connector BTC-10

Screw Eye SE-2

Shock Cord SC-18

Shock Cord Fastener SCF-1

Parachute PK-12

Launch Lug LL-3

Mylar retainer ring HR-20

Balsa sheet 3" x 9" x 3/32"

Shroud Line SLT-72

Tape Discs TD-6

Decal M-345

FLY WITH
HI-PERFORMANCE
Centuri
ROCKET ENGINES

PAYLOADER II

FLYING MODEL ROCKET

- See-Thru Payload Capsule
- Carries Payloads To 1100'
- Great Beginner Kit



Centuri IDENTIFICATION

Model No. **PAYLOADER II**

Length	10 1/2"	Wingspan	12 1/2"
Wt.	42.3	Alt.	414
Eng.	9135	Eng.	CBE

Manufacturer's Name

BONUS
Centuri
SPSC-PLATE

CAREFULLY CUT ON DOTTED LINE, PEEL OFF BACKGROUND, AND USE ON YOUR ROCKET

Centuri

KC-20
1421321