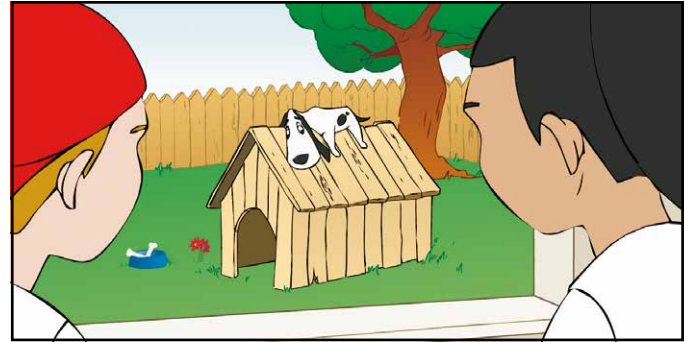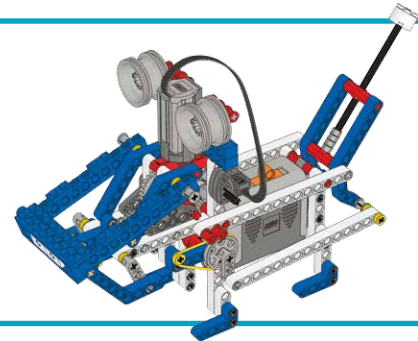# Dogbot

Name(s):

How can we make an exciting friend for Zog to play with?
Let's find out!

Build a Dogbot

(all of book 14A and book 14B to page 19, step 27)
- The lever that forms the upper jaw should move up and down
- The cams should rotate freely moving the eyes attached to the axles up and down
- The lever that acts as a tail should wag up and down

Is the dogbot wide awake?

Which cam setting will produce a sleepy, awake and wide awake dogbot?

- Predict first which eye action cam setting A will produce. Then test your prediction. Next, follow the same procedure for cam settings B and C.
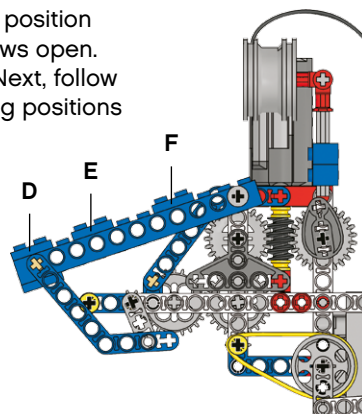
A

B

C

	My Prediction	What happened?
A		
B		
C		

Sleepy   Awake   Wide awake
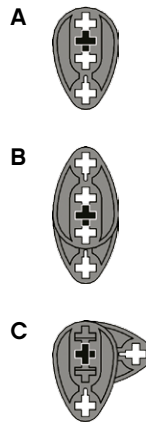
How wide can the dogbot's jaws open?

- First predict how wide peg position D will make the dogbot's jaws open. Then test your prediction. Next, follow the same procedure for peg positions E and F.
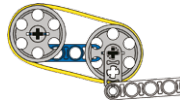
D   E   F

	My prediction	What happened?
D		
E		
F		

Wide   Wider   Widest

How happy is the dogbot?

The dogbot wags its tail when it is happy. The faster the wag, the happier it is.

- First predict how happy the dogbot is using pulley setting A. Then test your prediction. Next, follow the same procedure with pulley settings B and C.

	My Prediction	What happened?
A		
B		
C		

Also try:
- Dress the dogbot up
- Make a cardboard tongue and ears

Happiest   Happier   Happy

Did you know?
Your lower jaw is a lever. Feel where the muscle connects to the bone of the lower jaw. Your jaws are third class levers just like the dogbot – just upside down!

My Dogbot

Draw and label your favorite dogbot design.
Explain how the 3 best parts work.