

# BUILD YOUR OWN

NASA's Tracking and Data Relay Satellites (TDRS) provide communications services to NASA's most storied missions. Since 1983, NASA has launched a constellation of TDRS that reside in geosynchronous orbit. TDRS serves as a bent-pipe relay system transmitting user data between spacecraft and the ground. As spacecraft orbit Earth, TDRS collects their data and sends it back down to NASA ground stations. It also completes this process in reverse, allowing users on the ground to command their spacecraft. Here, you can build your own TDRS and help relay data back to Earth.

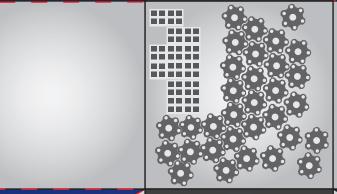
# **ASSEMBLY INSTRUCTIONS:**

### Step 1:

Carefully punch out all of the pieces.

### Step 2:

Fold along the interior lines below to form a cube. Assemble into a cube by taping the sides together along the tabs.



# Step 3:

Cut a radius into each of the antennas. Slightly overlap the radius to make it three dimensional. Secure with tape.

### Step 4:

Attach the components with tape, as shown in the rendering of TDRS on the inside of this brochure. Use straws or pipe cleaners to hold the components in place.

## **WANT TO LEARN MORE ABOUT TDRS:**

National Aeronautics and Space Administration

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