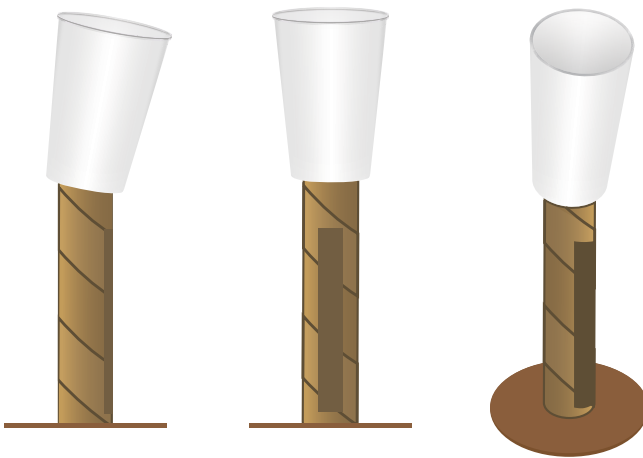


PART 3: Quick Start Receiver Construction Guide

This guide is intended for teachers interested in starting the communications activity in Telepong Part 2 as quickly as possible.

Refer to [Telepong Part 1](#) and [Telepong Part 2](#) for complete activity instructions.



GRADES:
5+



DURATION:
25-45 minutes



PREP TIME:
20 minutes

MATERIALS

- 12-16" tubes (Paper towel tubes work just fine, but clear tubes are best. Many packing-products vendors sell 1.5" diameter plastic mailing tubes).
- Clean cardboard boxes
- Plastic containers, washed and dried
- Packing materials
- Card stock
- Other craft supplies: pipe cleaners, floral wire, paint stirrers, etc.
- Ruler
- Masking tape or hot-melt glue gun¹
- Scissors, hobby knife, or box cutter
- Durable cutting surface

NGS Standards

Performance Expectations

MS-PS4-1, *-ETS1

Science and Engineering Practices

- Planning and Carrying Out Investigations
- Constructing Explanations and Designing Solution

Cross-Cutting Concepts

- Patterns
- Cause and Effect: Mechanism and Prediction
- Structure and Function

Disciplinary Core Ideas

- Information Technologies and Instrumentation
- Defining and Delimiting Engineering Problems
- Developing Possible Solutions
- Optimizing the Design Solution

¹Adult supervision required for all activities which involve cutting or using hot glue. Use appropriate cutting implements on proper cutting surfaces.

