

# REFLECTION RELAY

**Description:** Use three mirrors to reflect a light beam from a source to a target.

**Number of Participants:** 3

**Competition:**

## **Part I: Movable Mirrors**

1. A light source [laser] and three [3] mirrors are provided on site. The team uses these to direct the light off all three mirrors to the target.
2. Obstacles may be placed on the working surface and the beam may need to be directed around them.
3. In this part the team may move the mirrors as needed. The judge may require holding them off the table in this part or may have the target off the table's surface.
4. No coaching or clues will be provided by the judges
5. The target is 8.5" x 11" sheet of paper.
6. The team has 2 minutes to complete Part I.
7. The Team is timed from when the beam is turned on and until it hits the target.  
Thirty [30] points are awarded for each mirror the beam hits in sequence and thirty [30] points for the target. A perfect score would be 120

## **Part II: Mirrors Fixed**

1. A light source and three fixed mirrors on stands are provided on site.
2. The team must align the mirrors while the laser is off so its beam will reflect to the target when the laser is turned on.
3. Obstacles may be placed on the working surface and the beam will need to be directed around them
4. A maximum of three [3] minutes is allowed for setting up the mirrors in this part.
5. A team may bring supplies [string, paper, homemade protractors, etc., but no light source] to aid in this part.
6. No coaching or clues will be provided by the judge.
7. The target may be an 8.5" x 11" box.
8. Thirty [30] points are awarded for each mirror the beam hits in sequence and thirty [30] points for the target. A perfect score would be 120.

**Scoring:** Teams with the most points will be ranked highest.

**Tie Breaker:** Fastest time completing Part I.