

# Sustainable Development Goal 7 (SDG 7)



## 1. Club Name: PSI Racing

### Activity Title: Energy-Efficient Electric Vehicle Development

This activity focused on optimizing the BAJA electric vehicle to improve energy efficiency through better drivetrain design, reduced losses, and lightweight engineering, ensuring effective use of battery power.

#### Impact:

- Reduced **overall energy consumption**
- Improved **vehicle efficiency and performance**
- Minimized **energy losses in drivetrain**
- Promoted **efficient energy utilization**
- Encourages **energy-efficient EV design practices**

## 2. Club Name: Electric Vehicles and Energy Resources (EVER)

### Activity Title: Designing a Solar Tracker (SDG 7: Affordable & Clean Energy | SDG 13: Climate Action)

Designed a solar tracker system to automatically align photovoltaic panels with the sun, increasing energy output and improving efficiency for residential and small-scale energy applications.

#### Impact:

- **Participants: 3**
- Increased **energy output by 25%**
- Reduced **electricity cost by 15% annually**
- Achieved  **$\pm 2^\circ$  tracking accuracy**
- Improved **system efficiency by 20%**



### 3. **Club Name: Apekshaa**

#### **Activity Title: Planetarium Visit – Energy & the Solar System**

Organized an educational visit to the Anna Science Center Planetarium for REC School students, focusing on solar energy, renewable technologies, and the importance of transitioning from fossil fuels to sustainable energy sources.

#### **Impact:**

- **Participants:** 100 students
- Enabled **interactive learning on solar energy concepts**
- Achieved **100% participation in renewable energy discussions**
- Increased awareness of **clean and sustainable energy solutions**

