Meeting Transcribed Summary

The meeting focused on brainstorming features for an educational rover system. The team discussed mobility, sensors, user interaction, safety, autonomy, learning mechanics, and instructor controls. The goal was to design a robust, child-safe rover that supports mission-based learning, collaboration, and real-time feedback while remaining intuitive and engaging to use.

Brainstormed Feature List

- Magnetic sample pickup
- Adjustable speed modes
- Voice command interaction
- Tank-style tread drive
- Progress bar visualization
- Autonomous path replay
- Ambient light sensor
- Rubberized impact bumpers
- Randomized sample placement
- Touchscreen display
- Automatic startup self-check
- Multi-user role assignment
- LED trail visualization
- Two-joint sampling arm
- Accuracy-based scoring

- Physical emergency stop
- Obstacle-climbing wheel geometry
- Context-sensitive hints
- Sample contamination simulation
- Stable, weighted base
- Haptic control feedback
- Mission-based challenges
- Arm-mounted camera
- On-screen arrows and prompts
- Wireless charging dock
- Color detection sensor
- Automatic collision avoidance
- Diagram-based instruction panel
- Night-vision camera mode
- Soft, compliant gripper
- Height-adjustable control panel
- Real-time data visualization
- Multi-rover interaction
- Compass orientation display
- Automatic arm homing
- Cooperative multi-user mode
- Audio feedback output

- Variable terrain difficulty zones
- LED status indicators
- Instructor control interface
- Manual sensor scan mode
- Sample storage bin
- Fail-safe idle behavior
- Physical arrows and labels
- Augmented reality overlay
- Power-saving idle state
- Large directional control buttons
- Mission briefing screen
- Modular arm tools
- Motor overcurrent protection
- Countdown timer
- Terrain texture differentiation
- Fully enclosed mechanisms
- Science fact integration
- Joystick-based arm control
- Clear start and end states
- Data export functionality
- Child-safe construction materials
- Automatic reset after inactivity

- Temperature sensor
- Achievement indicators
- Tethered operational area
- Simulated environmental hazards
- Weight measurement sensor
- Multi-language support
- Real-world rover comparisons
- Attention-guiding LED animations
- Adjustable difficulty levels
- Robust, repeatable hardware
- Simulated communication delay
- Touchless proximity activation
- Single clear goal per task
- Icon-based interface design
- Ultrasonic distance sensors
- Automatic terrain mapping
- Easy-to-clean materials
- Physical boundary markings
- Diagnostic LED indicators
- Timed objectives
- AI-guided narration
- Start and reset buttons

- Three-joint articulated arm
- Consistent color coding
- Cloud-based data logging
- Low-speed default operation
- Sample-secured feedback indicator
- Gesture-based control
- Data comparison dashboard
- Remote system monitoring
- Force-limited arm motors
- Rounded structural edges
- Manual override mode
- Take-home QR code results
- Ambient soundscape feedback
- Clearly defined physical boundaries
- Sensor calibration mode
- Interactive error explanation
- Color-coded gripper tips
- Automated tutorial pop-ups
- Compass-free visual navigation cues
- Minimal text reliance
- Real-time collaboration indicators
- Rover recovery mode

- Automatic obstacle rerouting
- Wireless tablet companion app
- Success and error sound cues
- Path history visualization
- Simulated sample degradation
- Large icon-only mode
- Four-wheel independent steering
- Physical mode selector dial
- Open-ended exploration mode
- Environmental storytelling elements
- Instructor-triggered challenges
- Adjustable audio volume control
- Mission difficulty branching
- Energy usage visualization
- Clearly marked sample zones
- Automatic shutdown on fault
- Power-on visual countdown
- Sample labeling system
- LED color temperature shifts
- Cooperative scoring mechanics
- Weathered terrain aesthetics
- Two-way wireless communication

- Physical emergency stop light ring
- Sandbox testing area
- Automatic software update capability
- Interactive help button
- Sample handling time limits
- Visual success celebration animation
- Data-driven mission summaries
- Manual driving practice mode
- Sensor fusion display
- Instructor analytics dashboard
- Physical cable strain relief
- Adaptive hint frequency
- Modular terrain tiles
- Automatic startup greeting
- Adjustable screen brightness
- Error-tolerant control inputs
- Clearly labeled ports and connectors
- Autonomous idle animation
- Sample weight comparison chart
- Environmental sound alerts
- User progress history tracking
- Cooperative turn-taking system

- Visual arm reach boundary indicator