Variable Golf Club

Team AB
Ben, Arnav, Andreas

Project Idea

A golf training aid that takes user input such as distance or loft angle on a phone or computer and would adjust the loft angle of the club to ensure the golfer has the right club for that distance.

Additional features include an accelerometer to test swing speed and ultrasonic sensors to sense ball position during setup and club height from ground during the swing

ESP32s:

1. Powers and controls motors to adjust loft
2. Allows for wireless communication with phone/computer for user commands
3. Takes ultrasonic sensor feedback for distance sensing

Sensors:

1. Accelerometer - detects the speed of the golf swing
2. Ultrasonic - detects distance away from the golf ball
3. Ultrasonic - detects distance from the ground during swing

Actuators:

1. Motor - Moves loft angle of club attachment based on user input
2. Buzzer - Notifies the golfer the club has finished adjusting the loft angle
3. LED - Notifies the golfer that the ball is in the correct position and that the golfer can swing

Conceptual Drawings of Variable Gold Club