# Raspberry Pi Code

Import RPi.GPIO as GPIO

Import time

Import requests

# GPIO setup for the ultrasonic sensor

GPIO.setmode(GPIO.BCM)

TRIG = 23

ECHO = 24

GPIO.setup(TRIG, GPIO.OUT)

GPIO.setup(ECHO, GPIO.IN)

# Function to measure distance from the sensor

Def get\_distance():

GPIO.output(TRIG, True)

Time.sleep(0.00001)

GPIO.output(TRIG, False)

While GPIO.input(ECHO) == 0:

Pulse\_start = time.time()

While GPIO.input(ECHO) == 1:

Pulse\_end = time.time()

Pulse\_duration = pulse\_end – pulse\_start

Distance = pulse\_duration \* 17150 # Speed of sound in cm/s

Return distance

While True:

Distance = get\_distance()

# Send data to the central server

Server\_url = <https://your-server-url.com>

Payload = {“parking\_space\_id”: 1, “distance”: distance}

Response = requests.post(server\_url, json=payload)

Print(“Data sent to server:”, response.status\_code)

Time.sleep(1) # Update data every second