Ruby Tuesdays
RTanque Tournament
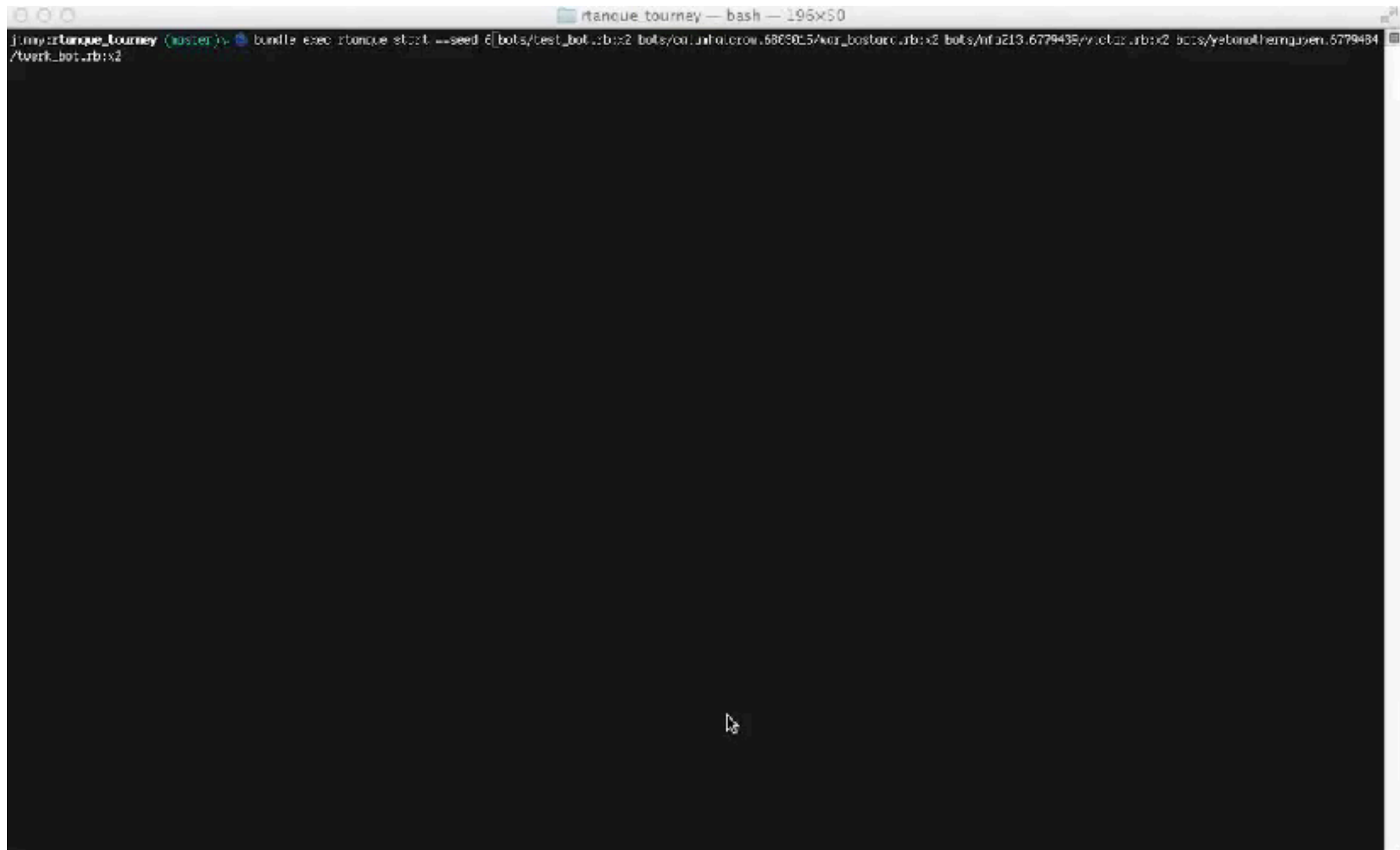
by Jimmy Ngu

What is RTanque

RTanque

/R taNGk/ 🔊

noun

A game for (*Ruby*) programmers. Players program the brain of a tank and then send their tank+brain into battle with other tanks. All tanks are otherwise equal.
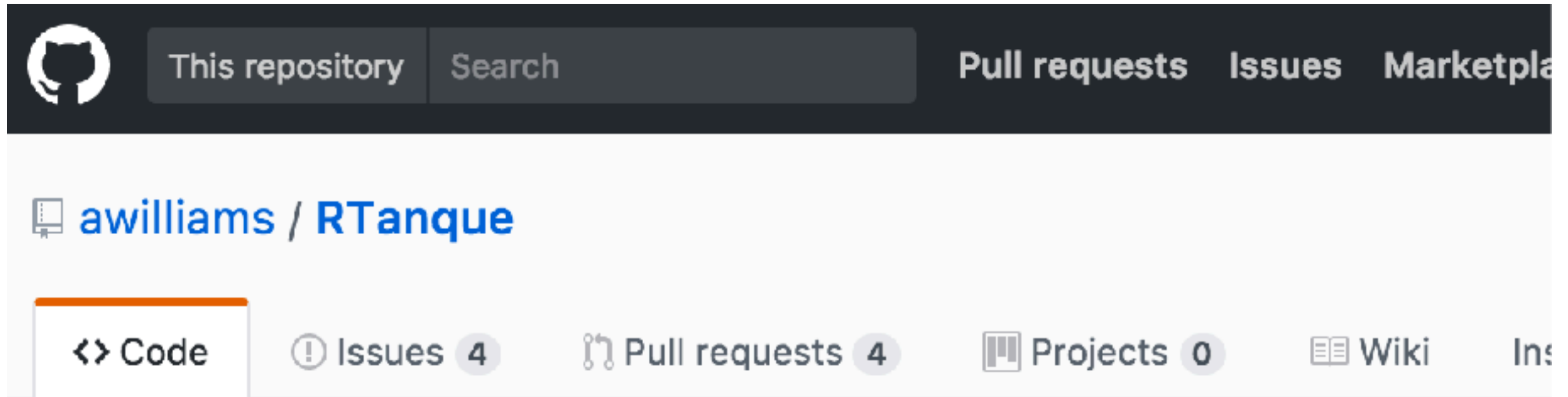
What is RTanque

https://github.com/awilliams/RTanque

This repository | Search | Pull requests | Issues | Marketpl

awilliams / **RTanque**

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RTanque is a game for (Ruby) programmers. Players program the brain of a tan battle against other tanks. http://awilliams.github.com/RTanque/

http://www.rubydoc.info/github/awilliams/RTanque

or

Google "rubydoc RTanque"
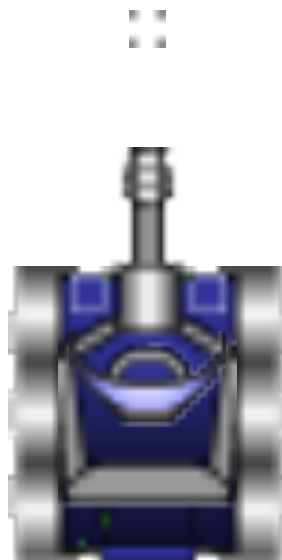
bullet

turret

radar

tank body

RTanque::Bot::Brain

```ruby
class MyTank < RTanque::Bot::Brain
  include RTanque::Bot::BrainHelper

  NAME = 'MyTank'

  def tick!
    # Do tank things ...
  end
end
```

RTanque::Bot::Sensor

```ruby
def sensor_stuffs
  sensor.gun_energy # energy of cannon.
  sensor.heading  # The current value of heading, yielding RTanque::Heading
  sensor.health # health of bot.
  sensor.position # The current value of position, yielding RTanque::Point
  sensor.radar  # enumerates all bots scanned by the radar, yielding Radar::Reflection.
  sensor.radar_heading  # The current value of radar_heading, yielding RTanque::Heading
  sensor.speed  # The current value of speed.
  sensor.ticks  # number of ticks, starts at 0.
  sensor.turret_heading # The current value of turret_heading, yielding RTanque::Heading
end
```

RTanque::Bot::Command

```ruby
def command_stuffs
  command.fire_power = 1.0 # Float, nil
  command.heading = 1.0 # Float, RTanque::Heading
  command.radar_heading = 1.0 # Float, RTanque::Heading
  command.speed = 1.0 # Float
  command.turret_heading = 1.0 # Float, RTanque::Heading
end
```

RTanque::Radar::Reflection

```ruby
def radar_reflection_stuffs
  sensor.radar.each do |reflection|
    reflection.class # Radar::Reflection
    reflection.name # enemy bot name
    reflection.distance # enemy bot distance
    reflection.heading # enemy bot heading
  end
end
```

radar detection area
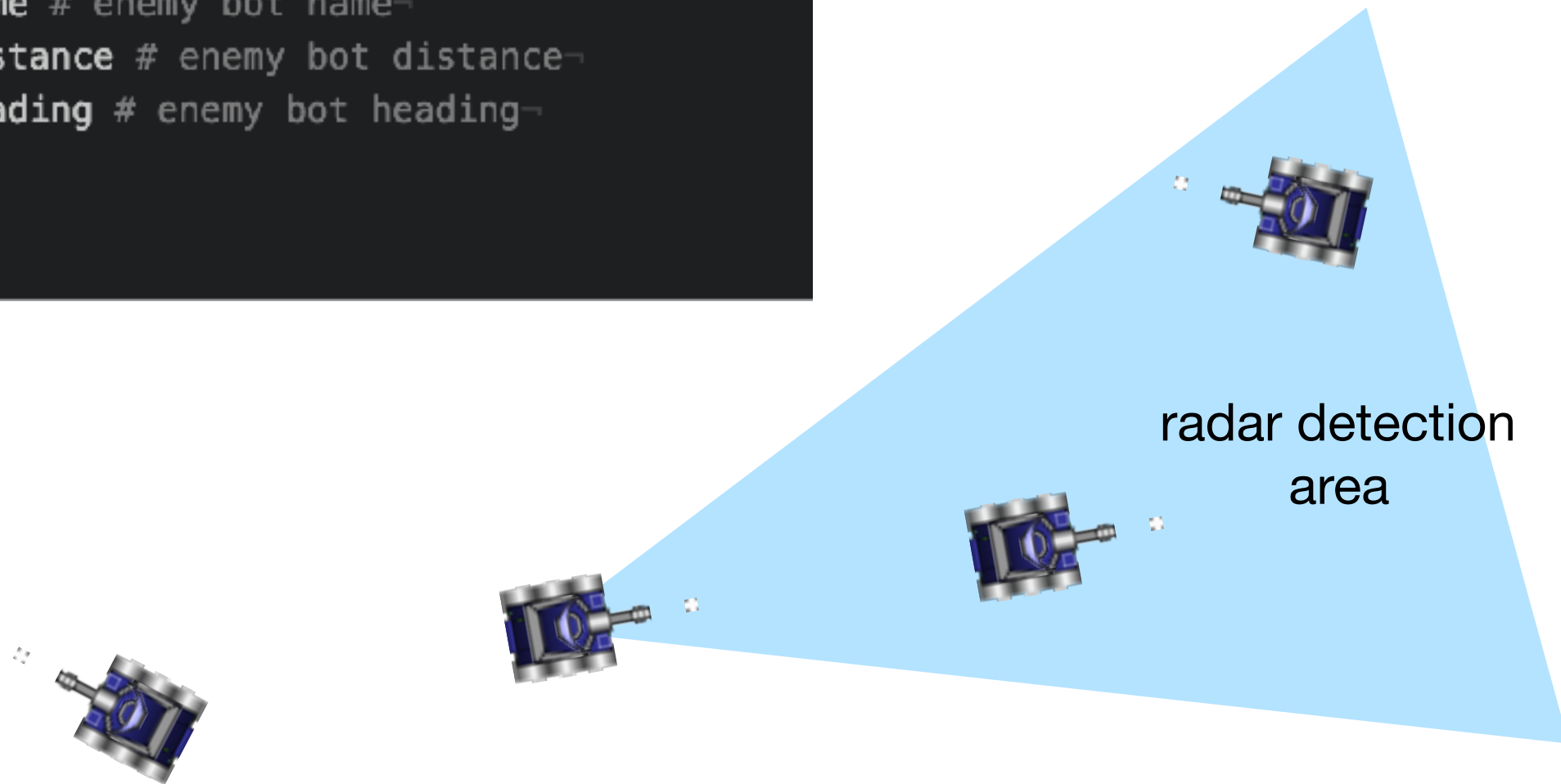
RTanque::Heading

```ruby
def heading_stuffs
  heading = RTanque::Heading.new(Math::PI)    # 1.0 pi rad / 180 degrees
  heading2 = heading + (Math::PI / 2)    # add 90 degrees = 270 degrees
  heading_deg = heading_rad.to_degrees   # 180.0

  RTanque::Heading.new_between_points(RTanque::Point.new(0,0), RTanque::Point.new(2,3))
  # => <RTanque::Heading: 0.1871670418109988rad 33.690067525979785deg>
end
```

Step 1 - setup locally :-

clone https://github.com/awilliams/RTanque
bundle install

Step 2 - Build & Test your tank :-

bundle exec rtanque new_bot my_super_bot
bundle exec rtanque start bots/**/*.rb

Step 3 - Upload your tank to Gist

Step 4 - Join the #RTRT channel in RubyMY Slack

http://rubybrigade.my/slack_invite/

Step 5 - Post your Gist Link

Let the Battle Begin !!!